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Tourism

Virginia Evans
Jenny Dooley
Veronica Garza



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cabin

cruise director

cruise ship

Welcome to Poseidon Cruises!

BIG BOAT
BIG FUN

porter

upper deck

tender

Get ready!

- 1 Before you read the passage, talk about these questions.

- Why do people take cruises?
- You win free tickets for a cruise. Where do you go? Why?

Reading

- 2 Listen and read a part of a brochure for a cruise ship. Where can you make new friends? Choose the correct answers.

- What does the brochure mainly talk about?
 - how to buy a cruise ship ticket
 - the types of rooms available on a ship
 - the fun parts of traveling on a cruise ship
 - why cruise ships are good for families
- One of the porter's duties is to ...
 - pack your luggage.
 - put your bags in your room.
 - inform about activities on the ship.
 - help passengers get on tenders.
- According to the passage, what does a person do on the upper deck?
 - visit the pool
 - get on a tender
 - have lunch
 - meet people

Do you want a mix of **relaxation** and **adventure**? Then Poseidon Cruises is perfect for you! At **embarkation**, show your boarding pass and we'll do the rest. Our **porters** take your luggage right to your **cabin**. And cruise directors tell you about activities on the ship. Do you want to relax? Then spend time on your private **balcony** or visit the pool. Do you want to have fun? Make new friends on the **upper deck**. We also offer many **shore excursions**. Passengers **disembark** at several **ports of call**. How do you get to land? We take you to land on **tenders**. Call us today to learn more.

Vocabulary

- 3 Read the sentence pairs. Choose where the words best fit in the blanks.

- relaxation / adventure
Mick does not want a lot of activity. He wants _____ during his holiday.
Rita climbs a mountain because she enjoys the _____.
- embarkation / shore excursion
Penny visits a new city. She is on a(n) _____.
Oscar shows his ticket at _____.
- porter / cruise director
Ulysses is a _____. He handles the passenger's luggage.
Miranda is a _____. She tells passengers about activities.

4 Match the words (1-6) with the definitions (A-F).

- 1 ___ cabin 4 ___ disembark
 2 ___ balcony 5 ___ port of call
 3 ___ upper deck 6 ___ tenders

- A to get off of a ship
 B a place where ships stop
 C the top part of a ship
 D a room on a ship where passengers sleep
 E small boats that take passengers from the cruise ship to land
 F a small outdoor area that is attached to cabins

Listening

5 Listen to a cruise director make an announcement. Then answer the questions.

- 1 What does the cruise director talk about?
 A a stop at a port of call
 B a shore excursion
 C things to do on the ship
 D problems with the dining area
- 2 According to the announcement, what activity takes place at 10 am?
 A games on the upper deck
 B lunch in the dining room
 C passengers watch a movie
 D a play in the theater

6 Listen again. Fill in the blanks.

Cruise Director: Hello, ladies and 1 _____. Welcome to the Grande Dame. This is your 2 _____. There are many activities on the Grande Dame today. At 10 am, join us on the 3 _____ for games. Then we have lunch at 4 _____. At 2 pm, watch a movie at the ship theater. The theater is on 5 _____. Finally, dinner is at 6 pm. The 6 _____ is on Deck 10. Have a wonderful day on our cruise ship!

Speaking

7 With a partner, act out the roles below, based on the announcement from Task 6. Decide who Student A and Student B are. Then switch roles.

USE LANGUAGE SUCH AS:

At 10 am, join us on the ... for ...
We have ... at 6 pm
The theater is on the Deck ...

Student A: You are a passenger on a cruise ship. Ask Student B about:

- activities on the ship
- times of the activities
- location of the activities

Student B: You are a cruise director on a cruise ship. Answer Student A's questions.

Writing

8 Use the conversation in Task 7 to fill out the schedule for the cruise ship.

| Grande Dame | | |
|-------------------------------|-----------|-------------|
| Schedule of Events for Monday | | |
| Time | Activity | Location |
| 8:00 AM | Breakfast | Dining room |
| | | |
| | | |
| | | |
| 12:00 PM | Lunch | Dining Room |
| | | |
| | | |
| | | |

Glossary

adventure [N-COUNT or UNCOUNT-U6] **Adventure** is fun and exciting activities.

affordable [ADJ-U8] Something that is **affordable** is something that you have enough money to buy.

arrivals terminal [N-COUNT-U5] An **arrivals terminal** is where people who land at the airport enter through.

ATM [N-COUNT-U11] An **ATM** (automatic teller machine) is a machine that you use to access and withdraw money from your bank account.

attendant [N-COUNT-U7] An **attendant** is a train worker.

baggage claim [N-COUNT-U5] A **baggage claim** is where you pick up your bags in an airport.

balcony [N-COUNT-U6] A **balcony** is an outdoor area that is attached to the cabin.

bank [N-COUNT-U11] **Banks** are places where people keep their money.

bed and breakfast [N-COUNT or UNCOUNT-U4] A **bed and breakfast** is small house or hotel that offers lodging and a morning meal.

benefit [N-COUNT-U8] A **benefit** is something good about a thing.

berth [N-COUNT-U7] A **berth** is a type of bed that is on a train.

boarding pass [N-COUNT-U5] A **boarding pass** is a paper that allows you to get on a plane or bus.

boarding time [N-UNCOUNT-U5] The **boarding time** is when passengers get on the plane.

bottled water [N-UNCOUNT-U15] **Bottled water** is clean water that is in a container.

branch [N-COUNT-U11] A **branch** is an office that is part of a bigger company.

break-in [N-COUNT-U14] A **break-in** is when a person enters a home or building without permission.

budget hotel [N-COUNT-U4] A **budget hotel** is a sleeping and resting place that is inexpensive and has few services.

bug spray [N-UNCOUNT-U15] **Bug spray** is a chemical substance that kills bugs.

business hours [N-UNCOUNT-U11] A company's **business hours** are the times that the company is open.

business traveler [N-COUNT-U1] A **business traveler** takes a trip for business.

buy-back [N-COUNT-U12] A **buy-back** is a policy. A business buys back something they previously sold you.

by bus [PREP PHRASE -U8] To go **by bus** is to travel somewhere on a big vehicle that carries a lot of people.

by rail [PREP PHRASE-U7] To travel **by rail** is to travel on a train.

cabin [N-COUNT-U4] A **cabin** is a small wooden house where visitors stay.

cabin [N-COUNT-U6] A **cabin** is a room on a ship.

campsite [N-COUNT-U4] A **campsite** is a sleeping and resting place where people stay in tents.

cash register [N-COUNT-U13] A **cash register** is a machine that holds a shop's money. It shows and records each transaction.

cash-only [ADJ-U10] A **cash-only** business only accepts cash as a method of payment.

catch the train [V PHRASE-U7] To **catch the train** is to ride on a train.

celebrate [V-I or T-U1] To **celebrate** is to have fun on an important day.

charge card [N-COUNT-U10] A **charge card** is a small card from a bank or shop that allows you to buy items and pay for them later.

cheaply [ADV-U8] Something that can be purchased **cheaply** is purchased for a little money.

check in [PHRASAL V-U5] To **check in** is to get the boarding pass from the airport worker.

checking account [N-COUNT-U10] A **checking account** is a type of bank account. You can withdraw money using checks.

collectible [N-COUNT-U13] A **collectible** is a valuable object that a person buys and collects.

commission [N-COUNT-U12] A **commission** is the amount of money a business charges for some types of service.

compact [ADJ-U9] A **compact** car is a small car.

conference [N-COUNT-U1] A **conference** is a group of people who come together to talk about business, education, etc.

connect [V-T-U2] To **connect** is to let a telephone caller communicate with someone else.

convert [V-T-U12] To **convert** is to change money from one currency to another.

cost [N-COUNT-U13] The **cost** of an item is the amount of money you pay for it.

coupon [N-COUNT-U13] A **coupon** is a piece of paper that allows you to buy something at a lower price.

courteous [ADJ-U2] Someone who is **courteous** is polite and nice.

credit card [N-COUNT-U10] A **credit card** is a small card that allows you to buy things and pay for them later.

criminal [N-COUNT-U14] A **criminal** is a person who breaks the law.

cruise director [N-COUNT-U6] A **cruise director** is a worker who organizes activities on the ship and tells passengers about the activities.

cuisine [N-COUNT-U3] A **cuisine** is a style of cooking from a certain place.

currency [N-COUNT-U12] **Currency** is a word for money from a particular place, like the euro and the dollar.

currency exchange office [N-COUNT-U12] A **currency exchange office** is a place where you can change money for another country's money.

cuts [N-COUNT-U3] A **cut** is meat from a certain part of an animal.

debit card [N-COUNT-U10] A **debit card** is a small card that takes money out of a bank account.

departure lounge [N-COUNT-U5] A **departure lounge** is where passengers wait to get on their plane.

departures terminal [V-I-U5] A **departures terminal** is a part of the airport that people who fly to a different place use.

direct a call [V PHRASE-U2] To **direct a call** is to decide who the caller speaks to next.

disembark [V-I-U6] To **disembark** is to get off a ship

drivers license [N-COUNT-U9] A **drivers license** is a card that says you are allowed to drive a car.

drive-through [N-COUNT-U3] **Drive-through** service is a type of service in which customers order and receive food in their car.

duty-free shop [N-COUNT-U5] A **duty-free shop** is a store where you buy items and do not have to pay tax for them.

economy car [N-COUNT-U9] An **economy car** is inexpensive.

**CAREER
PATHS**

Hotels & Catering

Virginia Evans
Jenny Dooley
Veronica Garza



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Success Magazine / Page 14

Getting the Job

Tips for a Successful Interview

Job interviews can be stressful; however, with the proper planning and preparation, you can get the job. Read these tips to help you survive the interview and get a **job offer!**

Before the Interview

- Research the company and prepare **relevant** questions. **Interviewers** appreciate when job **candidates** demonstrate interest in the company and the available position.
- Organize all **paperwork**, including your résumé, official **transcripts**, and **references** from previous employers.
- Plan responses to common interview questions and practice interviewing with a friend.
- Prepare for questions about your **salary** expectations by finding out how much employees in the position you are applying for are typically paid.

During the Interview

- Make a good first impression by arriving on time for the interview. Make sure to dress in clean and professional **attire**. Finally, be polite and use the interviewer's name when speaking.
- Respond to all questions clearly. **Interviewees** should provide solid examples of how their previous experience relates to skills needed for the new position. Also, be sure to explain your future career goals.

After the Interview:

- **Follow up** immediately with a **thank-you note** restating your interest in the position.
- Employers may request a **call-back** to obtain more information.



Get ready!

1 Before you read the passage, talk about these questions.

- 1 How do people prepare for a job interview?
- 2 What items do people bring to job interviews?

Reading

2 Read the article from a magazine, and then mark the following statements as true (T) or false (F).

- 1 ___ A job candidate should ask about the company during an interview.
- 2 ___ Interviewees make a good impression by dressing professionally for the interview.
- 3 ___ A call-back is a typical way for job candidates to follow up after an interview.

Vocabulary

3 Complete the sentences with words or phrases from the word bank.

WORD BANK

interview relevant followed up
salary interviewee

- 1 Mac _____ by thanking his interviewer.
- 2 After the _____, Ms. Mills wasn't sure if Tara was right for the position.
- 3 Mr. Jones is paid a good _____.
- 4 The _____ arrived early and waited until the manager was ready.
- 5 Mr. George didn't write his height on the application because it was not _____.

4 Choose the correct words/phrases to go in the blanks.

1 transcript / résumé

- A Mary's _____ lists her professional background.
B Steve requested a _____ from his university.

2 interviewer / job candidate

- A The _____ was impressed by Ms. Jones and offered her the job.
B Mr. Cruz decides to interview the _____.

3 attire / paperwork

- A The dress code requires professional _____.
B Ms. Jessup had to fill out some _____ before she could begin her new job.

4 reference / call-back

- A Traci received a _____ after the interview.
B Jason asked Ms. Watson if he could list her as a _____ on his job application.

5 thank-you note / job offer

- A Bob declined the _____ because he found a position at another company.
B Paige sent Mr. Trujillo a _____ for helping her complete the project.

5 Listen and read the article again. How should you address the interviewer?

Listening

6 Listen to a conversation between an interviewer and a job candidate. Then mark the following statements as true (T) or false (F).

- 1 ___ The man wants a job as a manager.
2 ___ The man has never worked in the hotel business before.
3 ___ The man helps train new employees at his current job.

7 Listen again, and fill in the blanks.

Candidate: Well, I'm currently working as an assistant hotel manager, but I'm looking to **1** _____.

Interviewer: Okay. According to your résumé, you've **2** _____ for five years, right?

Candidate: That's correct.

Interviewer: And what would you say has been your **3** _____ during those five years?

Candidate: Last year I created a very successful **4** _____ for new hotel employees.

Interviewer: Really? That's great.

Candidate: Yes, it's really helped our hotel run **5** _____.

Speaking

8 With a partner, act out the roles below, based on the dialogue from Task 7. Then switch roles.

USE LANGUAGE SUCH AS:

Why are you interested in working as... ?

I'm currently working as a...

What would you say has been your greatest accomplishment?

Student A: You are an interviewer at the Royal Point Hotel. Ask Student B questions about:

- work experience
- relevant job skills
- future goals

Student B: You are a job candidate in an interview. Respond to Student A's questions.

Writing

9 You are an interviewer. Use the article and the conversation to write an article giving advice on how to prepare for an interview (100-120 words). Make sure to talk about the following:

Interview advice

- *Preparing before an interview*
- *Making a good first impression*
- *Common interview questions*

**CAREER
PATHS**

Law

Virginia Evans
Jenny Dooley
David J. Smith - J.D.



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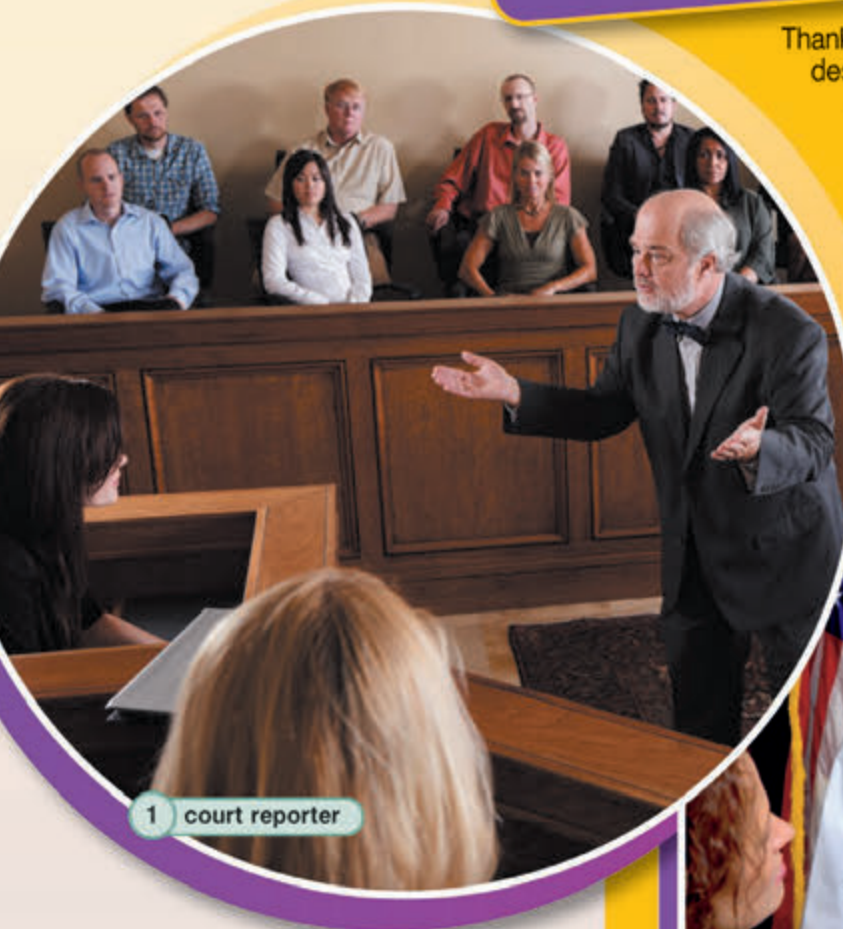
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Jury Duty

Rules and Expectations



1 court reporter

Thank you for reporting for jury duty. The following is a description of what to expect today.

You will receive a number. Enter the courtroom when the **clerk of the court** calls that number.

In the courtroom, have a seat in the **jury box**. The **bailiff** will direct you.

Attorneys for the **defense** and **prosecution** will then ask you questions. A judge **presides** over the **proceedings** and the **court reporter** records your answers. The

goal is to select **jurors** for a trial. It is important that you answer their questions honestly. This provides the defendant with a fair trial. Potential jurors may leave after questioning if not selected.



2 clerk of the court



3 jury box

Get ready!

1 Before you read the passage, talk about these questions.

- Who must be in a courtroom during a trial?
- How can lawyers be sure that jurors will be fair?

Reading

2 Read this court pamphlet. Mark the following statements as true (T) or false (F).

- A judge asks potential jurors questions to check if they are biased.
- Jurors' answers are recorded by an employee of the court.
- Every person that reports for jury duty listens to a trial.

Vocabulary

3 Match the words (1-6) with the definitions (A-F).

- | | | | |
|---|------------------------|---|-----------------|
| 1 | ___ clerk of the court | 4 | ___ prosecution |
| 2 | ___ court reporter | 5 | ___ juror |
| 3 | ___ defense | 6 | ___ bailiff |

- the side of a case that attempts to prove innocence
- the side of a case that attempts to prove guilt
- a person who assists a judge
- an officer who keeps order in court
- a person that types everything that is said in court
- a person who listens to a trial and decides if a defendant is guilty or not

4 Check (✓) the sentence that uses the underlined parts correctly.

- 1 — A The proceedings took place in the courtroom on the second floor.
— B The defense brought the lawsuit against the corporation.
- 2 — A The judge took his seat in the jury box when the trial started.
— B Judge Williams is presiding over the upcoming trial.
- 3 — A Mary isn't going to be at work because she has jury duty.
— B The bailiff typed the attorney's words very quickly.
- 4 — A The court reporter sat at the table with her client and waited for the trial to start.
— B The attorney stood close to the jury box as he made his argument to the jurors.

5 Listen and read the text again. Say what happens when you report for jury duty.

Listening

6 Listen to a conversation between a judge and a defense attorney. Choose the correct answers.

- 1 What is the conversation mostly about?
A removing a juror C selecting a new juror
B questioning a juror D protesting a juror's decision
- 2 What is the judge's opinion?
A He thinks young people often commit crimes.
B He plans to release the defendant.
C He doubts the juror would be fair.
D He agrees with the attorney's argument.

7 Listen again and complete the conversation.

Attorney: Your Honor, I don't believe that 1 _____ four should sit for this trial.

Judge: For what 2 _____?

Attorney: One of his answers to my questions. He believes that young people are more likely to commit crimes these days.

Judge: And you're worried that he will be 3 _____ toward the defendant?

Attorney: Yes. My client is only seventeen years old.

Judge: The 4 _____ has a point. We'll release him.

Attorney: Thank you, Your Honor.

Judge: We'll continue the 5 _____ after the 6 _____ of the court calls in another juror.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

Your Honor, I don't believe that ...
He believes that ...
My client is only ...

Student A: You are a defense attorney. You see a problem with a juror. Talk to Student B about:

- the juror
- a question and answer
- your client

Student B: You are a judge. Talk to Student A about a juror and make a decision.

Writing

9 Use the conversation from Task 8 to complete the notes about selecting a jury for a trial.

Today, we _____ a juror. I thought he would be _____

I believe this because he _____

The judge _____ and _____

JURY NOTES

**CAREER
PATHS**

Engineering

Charles Lloyd
James A. Frazier - Jr. MS



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6 SI System of Units

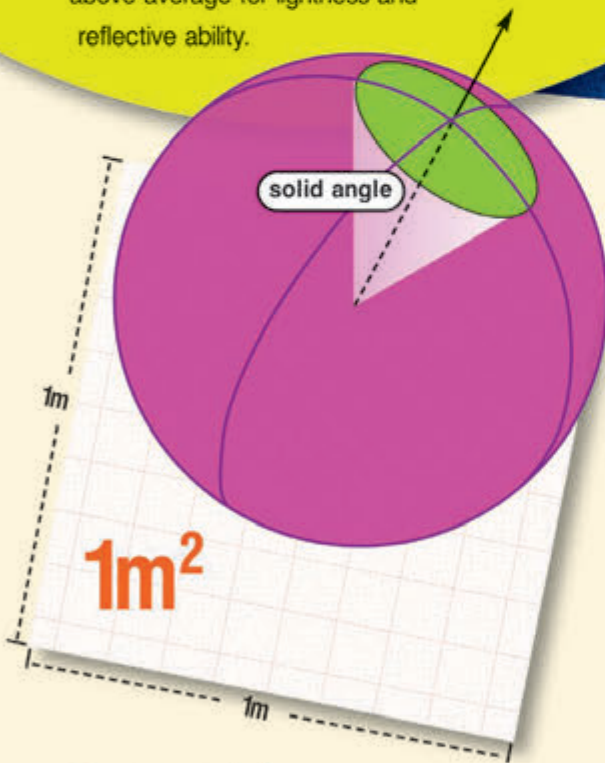
Light-Reflecting Material: Summary and Specifications

Engineers here at Parker Engineering have developed a new, lightweight material that reflects light. This report details the experiment process and results.

The aim of the project was to construct a material that was both lightweight and highly reflective. Following the development of the prototype, **measurements** of the material's weight and reflective ability were recorded. We are submitting all measurements in accordance with the **SI system of units**, commonly known as the metric system. The weight of the material was measured in **grams per square meter**. The **luminous intensity** was measured with a **base unit** of **candelas**. The light reflected back was measured on a **solid angle** of one square meter. This **supplementary unit** was used for ease of calculation. The **derived unit** of **luminance** was used to measure the amount of light returned.

The test conditions and results are as follows: The light source reflected 75,000 candelas of luminous intensity. Experiments show that the material returned with a luminance of 1,000 candelas per square meter at a distance of 100 meters and .0001 **steradians**. The weight of the material measured 95 grams per square meter.

Based on the above results, the material was above average for lightness and reflective ability.



Get ready!

1 Before you read the passage, talk about these questions.

- 1 What types of measurement are you familiar with?
- 2 What can you measure with the SI system of units?



Reading

2 Read the report from an engineer at Parker engineering. Then, mark the following statements as true (T) or false (F).

- 1 Engineers recorded the material's reflective ability.
- 2 Luminous intensity was measured with candelas.
- 3 The prototype did not meet the weight requirements.

Vocabulary

3 Match the words (1-7) with the definitions (A-G).

- | | |
|---|---|
| 1 <input type="checkbox"/> luminous intensity | 5 <input type="checkbox"/> steradian |
| 2 <input type="checkbox"/> supplementary unit | 6 <input type="checkbox"/> SI system of units |
| 3 <input type="checkbox"/> solid angle | 7 <input type="checkbox"/> derived unit |
| 4 <input type="checkbox"/> base unit | |

- A a measurement system with seven types of units
- B a two-dimensional angle in a sphere
- C the power of light the human eye can perceive
- D a unit of measurement formed by combining base units
- E a measurement unit beyond the seven basic types
- F a unit of measurement for angles
- G one of seven basic units of measurement

4 Write a word that is similar in meaning to the underlined part.

- 1 One unit of measurement for mass is very light. g _ _ m
- 2 This lamp emits 120 units of luminous intensity.
c _ n _ _ l _ s
- 3 Record the exact dimensions.
_ _ a _ _ r _ m _ _ _ s
- 4 How many units of measurement for area is the yard?
_ q _ _ r _ _ m _ _ e _ s
- 5 Measure the reflection's brightness from a distance.
_ u _ _ n _ _ c _

5 Listen and read. How much does the new material weigh?

Listening

6 Listen to a conversation between an engineer and a clothing manufacturer. Choose the right answers.

- 1 What is the main idea of the dialogue?
A describing the production process
B selling the material to a manufacturer
C reducing how much the material weighs
D negotiating the cost of the material
- 2 According to the dialogue, what is NOT an advantage of the product?
A It does not weigh very much.
B It is extremely reflective.
C Its price has been reduced.
D It can be placed on safety clothing.

7 Listen again and complete the conversation.

- E: Ms. Platt, thanks for 1 _____ to meet with me.
- M: My pleasure. So, what's this great new product you mentioned on the phone?
- E: It's a super reflective material. Its 2 _____ is very high.
- M: And what exactly is it designed for?
- E: It would work great for 3 _____. Small strips placed on uniforms can reflect large amounts of light.
- M: And how much does it cost?
- E: Well, the production process is rather involved. So it costs about 70 dollars 4 _____.
- M: That's 5 _____. Other reflective materials are available for less.
- E: But ours reflects twice as much light as others. So you use less of it.
- M: Good point. It 6 _____.

Speaking

8 With a partner, act out the dialogue from Task 7. Then switch roles.

USE LANGUAGE SUCH AS:

- What's this great new product you mentioned on the phone?*
It's a super reflective material.
How much does it cost?

Student A: You are a clothing manufacturer. Ask Student B about a materials:

- uses
- cost

Student B: You've created a lightweight, reflective material. Answer Student A's questions. Make up a name for the manufacturer.

Writing

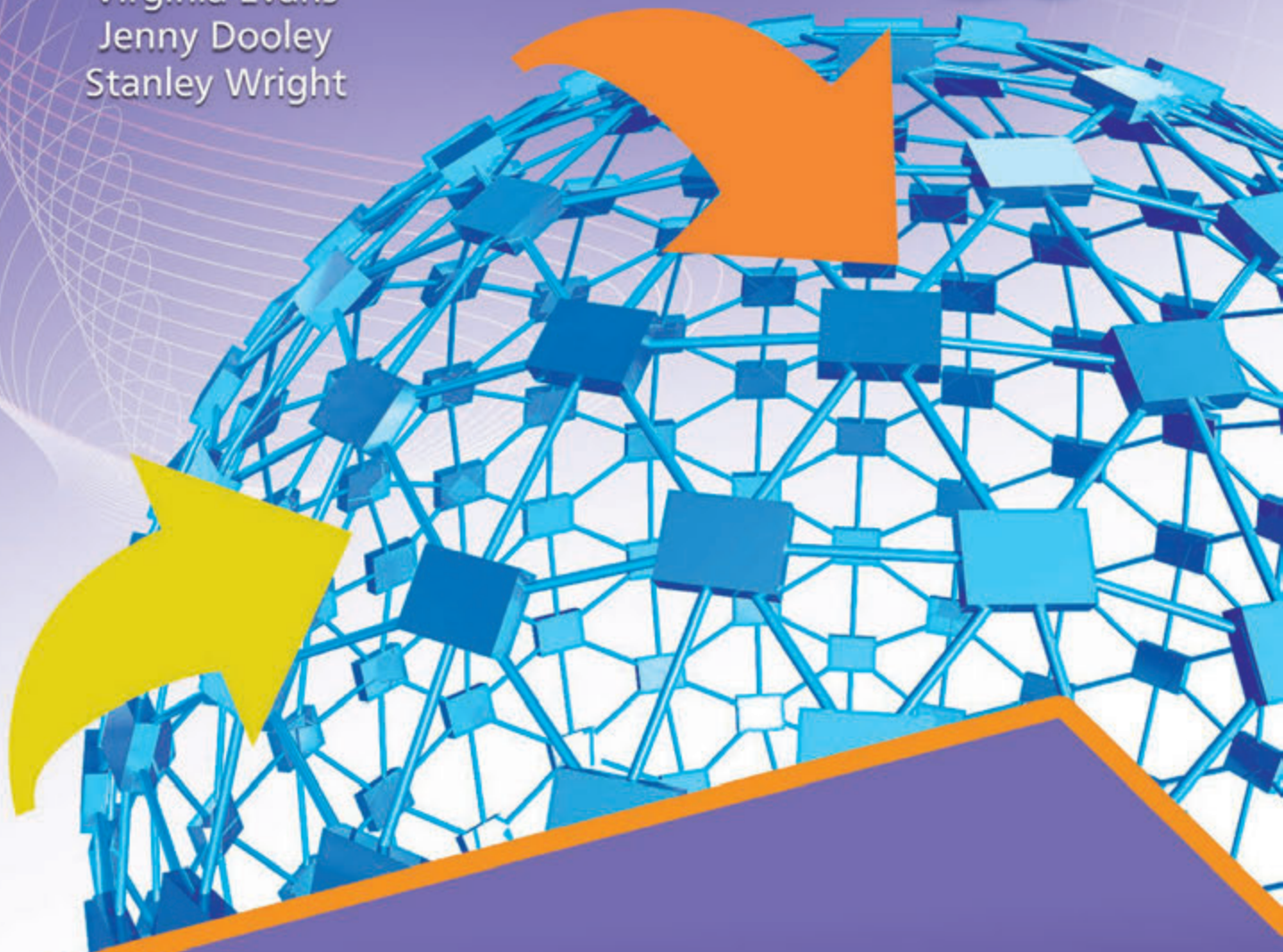
9 You are an engineer who has developed a new reflective material. Use the report and conversation from Task 8 to write a brief journal article about the material (100-120 words). Write about:

- The uses of the product
- The characteristics of the product
- Why this product is better than others

**CAREER
PATHS**

Information Technology

Virginia Evans
Jenny Dooley
Stanley Wright



Express Publishing

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1 Macs® and PCs



The Eternal DEBATE

by Leslie Davis



vs.



As **Apple®** grows in popularity, the **Mac®** versus **PC** debate continues. Many businesses experience trouble choosing between the two. However, businesses must realize that each computer is suited for different needs.

The two differ most in their operating systems. With a PC you have a variety of OS options from **Microsoft®** and other sources. Macs® come with one of the proprietary Apple® OSes like **OS X®**. You can install **Windows®** on a Mac®, but many users prefer the Mac® OS regardless.

Macs® have proven themselves vital in publishing, particularly the **prepress** process. Mac® has superior **typography** and **color matching**. Once printed, products look exactly as good as they do on the computer screen.

Meanwhile, PCs are noted for their fast **processing speed** and adaptability. Users can **customize** a PC to their needs. Additionally, their **video subsystems** are more powerful. This makes PCs desirable for game designers and others who need advanced graphics.

However, both computers have their limitations. While PCs are cheaper, they are also more susceptible to viruses. Macs® usually cost more but are less susceptible to computer viruses. However, Macs® tend to have fewer third-party software options than PCs. Businesses need to consider such concerns and make the right decision when buying computers for their companies.

Get ready!

1 Before you read the passage, talk about these questions.

- 1 Why do people prefer one operating system over another?
- 2 How might one operating system benefit a company more than another?

Reading

2 Read the computer magazine article. Then, mark the statements as true (T) or false (F).

- 1 ___ Macs® are generally more expensive than PCs.
- 2 ___ PCs are better suited to publishing.
- 3 ___ PCs have fewer options from third-party software producers.

Vocabulary

3 Match the words (1-7) with the definitions (A-G).

- | | |
|-----------------|------------------------|
| 1 ___ Apple® | 5 ___ processing speed |
| 2 ___ Windows® | 6 ___ video subsystem |
| 3 ___ customize | 7 ___ Microsoft® |
| 4 ___ OS X® | |

- A company that creates the most common PC operating system
- part of a computer that creates visuals
- a measurement of how quickly a computer works
- operating system for PCs
- changing a computer for your needs
- operating system for Macs®
- company that creates Macs®

4 Fill in the blanks with the correct words: *Mac*[®], *prepress*, *color matching*, *PC*, *typography*

- 1 A _____ comes with OS X[®].
- 2 Publishing software is needed for the _____ process.
- 3 Good _____ means anything printed out looks exactly like what's on screen.
- 4 I'm getting a _____ because I like the Windows[®] OS.
- 5 The _____ on this computer includes hundreds of fonts.

5 Listen and read the computer magazine article again. What makes the PC more popular with game designers?

Listening

6 Listen to a conversation between two employees at a publishing company. Choose the correct answers.

- 1 What is the conversation mostly about?
 - A customizing PCs for publishing
 - B locating third-party software options
 - C finding publishing programs for Mac[®]
 - D the differences between Macs[®] and PCs
- 2 What can you infer about the employees?
 - A They currently use Macs[®].
 - B They are unfamiliar with PCs.
 - C They plan to request new Macs[®].
 - D They create and publish software.

7 Listen again and complete the conversation.

Employee 1: Mr. Jackson has decided to update our computers. 1 _____!

Employee 2: Really? PCs? I'm glad we're updating, but I'd rather 2 _____.

Employee 1: You would? Not me. You can't customize a Mac[®].

Employee 2: Sure, you 3 _____. But Macs[®] do some things so much better.

Employee 1: What do you mean?

Employee 2: The 4 _____ and typography are more sophisticated on a Mac[®] than on a PC. We need that in publishing.

Employee 1: Okay, I'll give you that. But Macs[®] have 5 _____, don't they?

Employee 2: Maybe a little, but that's mostly with video, and we barely use it.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

*We're switching to PCs.
You can customize PCs.
But Macs[®] have slower processing speeds.*

Student A: Talk to Student B about:

- switching to PCs
- benefits of PCs
- drawbacks of Macs[®]

Student B: You are an employee. Talk to Student A about the benefits of Macs[®].

Writing

9 You are an IT Worker at a company. Use the article and the conversation from Task 8 to write an email to management recommending the company purchase either Macs[®] or PCs (120-150 words). Talk about:

- Which type of computer you would choose
- Why your company needs this type of computer
- The benefits of the type of computer you would choose
- The drawbacks of the type of computer you wouldn't choose



**CAREER
PATHS**

Business English

John Taylor
Jeff Zeter



Express Publishing

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1 Company culture

Get ready!

1 Before you read the passage, talk about these questions.

- 1 What values do you think make a company successful?
- 2 What traits or actions can discourage customers from doing business with a company?



Software plus

OUR COMPANY'S CORE VALUES...

At Software Plus, we value our customers above all else. We want to:

- provide quality products at **affordable** prices
- keep prices as low as possible so that our customers know they are getting a fair deal
- treat each customer as an individual
- strive to make every person who shops with us feel important and valued

Software Plus also recognizes **innovation** as a key part of our business. We will take steps to:

- stay **one step ahead** of the market
- monitor current **trends** and move quickly to fill **gaps** in the market

The employees of Software Plus are the company's greatest **asset**. As such, we **endeavor** to:

- provide a pleasant, friendly working environment
- supply training **opportunities** and **perks**
- foster professional growth and development

Environmental issues are a **priority** at Software Plus. We promise to:

- support a wide range of environmentally friendly **initiatives**, such as recycling and car sharing
- never knowingly create a product that is harmful to the environment



Reading

2 Listen and read this poster about a company's values. Then, read the summary of the text. Fill in the blanks with the correct words from the word bank. How does the company value their customers? Tell the class.

word BANK

products customers employees
market opportunities

The company 'Software Plus' has four core values. To begin with, it aims to put 1 _____ first. Secondly, it tries to stay ahead in the 2 _____ by identifying what is popular. Thirdly it treats its 3 _____ well by providing perks and training 4 _____. Finally, it never creates 5 _____ that harm the environment.

Vocabulary

3 Match the words (1-7) with the definitions (A-G).

- | | |
|------------------|-------------------|
| 1 ___ gap | 5 ___ perk |
| 2 ___ trend | 6 ___ opportunity |
| 3 ___ innovation | 7 ___ endeavor |
| 4 ___ priority | |

- A a benefit people receive from their jobs
 B the most important thing to do
 C a new development
 D to try to do something
 E a temporarily popular item or style
 F a place where something is missing
 G a chance to do something useful

4 Read the sentence pairs. Choose where the words best fit in the blanks.

1 foster / strive

The company aims to _____ the staff's development.
Mr. Gao wants his workers to _____ to do their best.

2 affordable / one step ahead

It's important to stay _____ of our competition.
The other company's product is more _____.

3 initiatives / core values

This company has three _____: loyalty, quality and trust.
There are many new _____ to help small businesses.

4 environmental issues / assets

The company was forced to sell many of its _____.
Being aware of _____ can reduce pollution.

Listening

5 Listen to a conversation between two managers. Mark the following statements as true (T) or False (F).

- ___ The poster will be displayed in the break room.
- ___ The man wants to include a statement about current employees.
- ___ The woman thinks people will like the environmental initiatives.

6 Listen again and complete the conversation.

Manager 1: I need some help with this poster for next month's 1 _____.

Manager 2: Sure, have a seat. What can I do?

Manager 1: Well, management wants a display that shows our 2 _____. The problem is, the manual lists a lot of values, but I can only show four.

Manager 2: I'd start with customer care. You could write about how we keep our software affordable.

Manager 1: That's good, thanks. What do you think of including 3 _____, though?

Manager 2: Yeah, why not? You could mention a few of our environmental initiatives. Like our recycling program.

Manager 1: Good idea. But it's a job fair, and there's 4 _____ . I should include something about them, right?

Manager 2: What do you 5 _____?

Speaking

7 With a partner, act out the roles below, based on the dialogue from Task 6. Then switch roles.

USE LANGUAGE SUCH AS:

I need some help with this poster ...

I'd start with ...

What do you think of ...

Student A: You need to choose four core values for a poster. Talk to Student B about:

- suggestions
- your ideas
- attracting employees

Student B: Answer Student A's questions and make suggestions.

Writing

8 You are writing a website page about your company's core values. Using the poster and the conversation from Task 7, write a paragraph for the website (100-120 words). Talk about:

- What your company's core values are
- What your company endeavors to do
- How your company stays one step ahead



**CAREER
PATHS**

Accounting

John Taylor
Stephen Peltier - C.P.A., M.S.



Express Publishing

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3

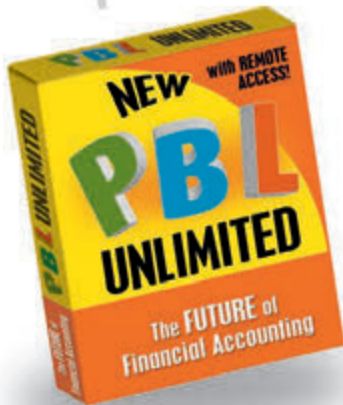
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PBL UNLIMITED

It's here! The new version of PBL's complete accounting software offers the same **ease of use**, **security**, and **functionality** as our previous version, plus **updates** to launch your business into the future of financial accounting.

PBL Unlimited features:

- Up to 50 **user licenses**
- Cash flow manager
- Automatic inventory tracking
- Audit trail report
- **Remote access**
- **Data mining**
- Unlimited customer accounts
- Two years of free updates
- And so much more ...



Get ready!

1 Before you read the passage, talk about these questions.

- 1 What are the advantages to using accounting software?
- 2 What are some different types of accounting software?

Reading

2 Read these advertisements. Then, mark the following statements as true (T) or false (F).

- 1 ___ Multiple users can operate PBL Unlimited.
- 2 ___ The Virtual Accountant features self-teaching tools.
- 3 ___ The Virtual Accountant is best for large firms.

HANFORD

Are you tired of paying hundreds of dollars in accountant fees? Do you wish there was a simpler and cheaper way?

Virtual
Accountant

H

With the Virtual Accountant, there is!

The Virtual Accountant is Hanford Enterprises' new **user-friendly** accounting software designed especially for individuals and small businesses. This simple program will help you get your accounting operations **up and running**. It includes simple tutorials to show you how to manage your data and avoid "garbage in, garbage out."

Call today to talk to a Hanford representative!



Vocabulary

3 Match the words (1-5) with the definitions (A-E).

- | | |
|-------------------------------|---------------------|
| 1 ___ ease of use | 4 ___ functionality |
| 2 ___ updates | 5 ___ data mining |
| 3 ___ garbage in, garbage out | |

- A the result of flawed input is flawed output
- B improvements created by a program's designers
- C analyzing information and finding patterns in it
- D the degree to which a program is simple to operate
- E the degree to which a program is practical and useful

4 Fill in the blanks with the correct words and phrases: *user licenses, remote access, up and running, tutorials, user-friendly.*

- 1 Large firms need software with a lot of _____.
- 2 The business will be _____ soon.
- 3 Don is travelling and wants a program with _____.
- 4 Individuals may want a program that is _____.
- 5 People who are new to accounting should use _____.

5 Listen and read the advertisement again. How many people are allowed to use one copy of PBL unlimited?

Listening

6 Listen to a conversation between two accountants. Choose the correct answers.

- 1 What is the dialogue mostly about?

| | |
|-----------------------|---------------------------|
| A choosing software | C PBL's latest update |
| B the number of users | D using outdated software |

- 2 What are the accountants likely to do?

| | |
|---------------------------|---------------------------------|
| A stop using software | B select PBL Unlimited |
| C shop for other programs | D update their current software |

7 Listen again and complete the conversation.

Accountant 1: So, Tim, have you thought about which 1 _____ we should get?

Accountant 2: Well, I'm thinking about getting PBL Unlimited.

Accountant 1: Hmm ... I 2 _____ PBL Unlimited. I like the Virtual Accountant, though.

Accountant 2: This 3 _____ PBL Unlimited has some 4 _____.

Accountant 1: But the Virtual Accountant is really easy to use. It has tutorials on 5 _____.

Accountant 2: That's cool. But I 6 _____ for homes, not businesses.

Accountant 1: You don't think it would work for the business?

Accountant 2: Well, I would 7 _____ something with more features.

Accountant 1: What features does PBL Unlimited have?

Accountant 2: Oh, it has everything! It has inventory tracking, data mining and a lot more.

Speaking

8 With a partner, act out the roles below based on Task 7. Then switch roles.

USE LANGUAGE SUCH AS:

Have you thought about which software ...?
I'm thinking about getting ...
What features does ... have?

Student A: You are an accountant. Talk to Student B about:

- software
- features
- preferences

Student B: You are an accountant. Answer Student A's questions.

Writing

9 Use the advertisement and the conversation from Task 8 to complete the email.

FROM: _____, CPA
 TO: _____, Accounting Manager

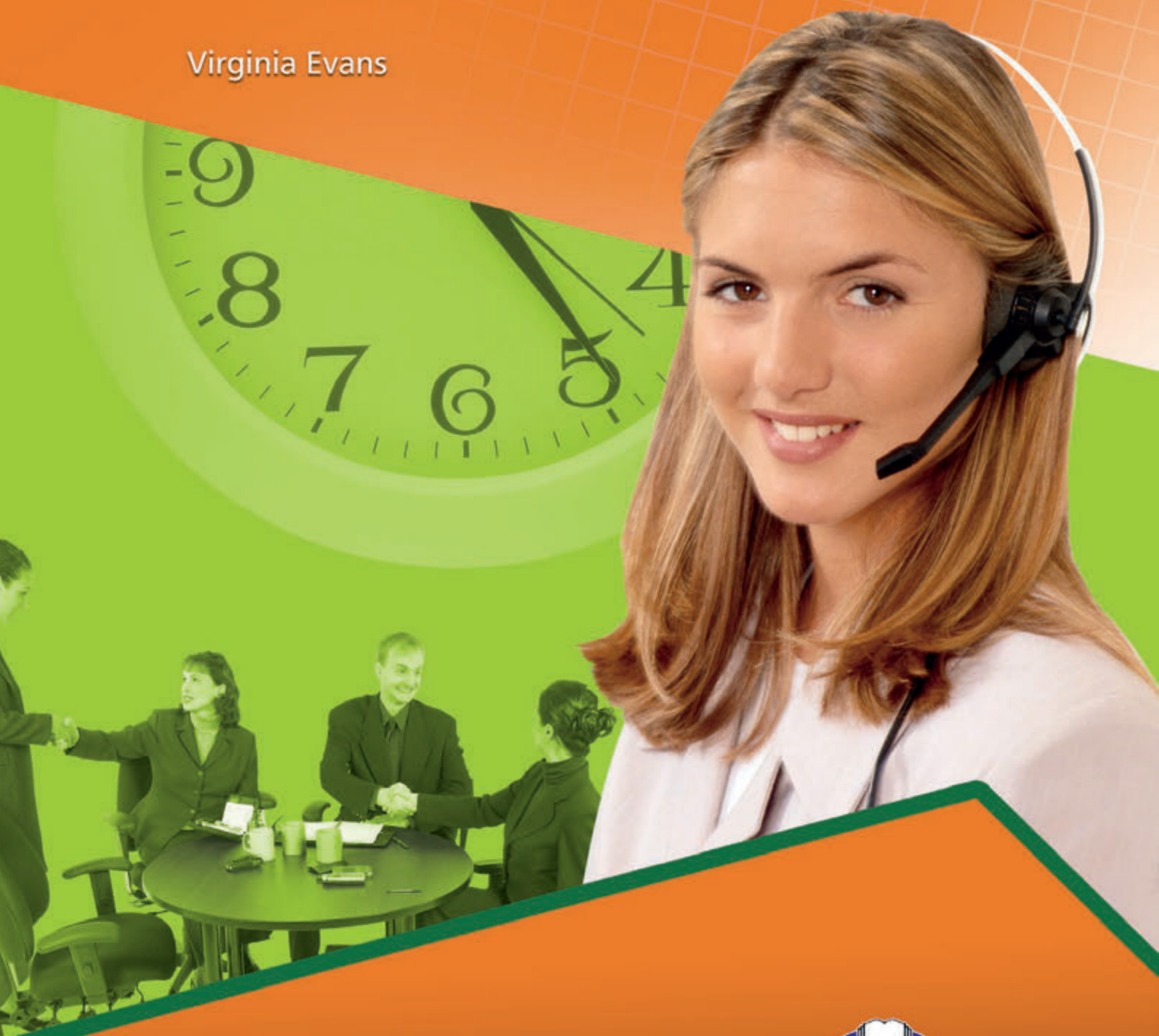
I know you want to buy new software for our department. I just wanted to let you know about a really great program that I used at a previous job. _____

Thanks for your time!

**CAREER
PATHS**

Secretarial

Virginia Evans



Express Publishing

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7 Filing equipment



The Stationery Store



On special offer for one month only!

DON'T MISS OUR SALE - GREAT SAVINGS!



ring binder



clear pocket



storage box



box file

Ring Binders:

Three inch, two-ring or four-ring binders, available in blue, green, red, yellow and black. *Twelve for the price of ten!*

Box Files:

A4 or legal size, available in blue or grey. *Buy two, get one free!*

Suspension Files:

All files come with colored tabs and inserts. *Package of 100 files - now half price!*

CD Storage Boxes:

Easy to assemble. Holds 100 CDs. *Now 20% off!*

CD-R discs:

700MB digital storage. CDs will play back on DVD or CD players. Safe and permanent; it's impossible to erase your data. *Pack of fifty discs - half price!*

Clear Pockets:

A4 pockets, punched with holes to fit most types of binder. Perfect for presentations and pictures! *Pack of one hundred for the price of fifty! This month only!*

Get ready!

1 Before you read the passage, talk about these questions.

- 1 Where do people store their papers?
- 2 How do people keep things organized?

Reading

2 Read this store advertisement. Then, mark the following statements as true (T) or false (F).

- 1 ___ Box files are available in three colors.
- 2 ___ CD storage boxes can hold 20 CDs.
- 3 ___ Clear pockets are half price this month.

Free next-day delivery for orders over \$25.

Vocabulary

3 Match the words (1-6) with the definitions (A-F).

- | | | |
|-----------------------|-------------|--------------|
| 1 ___ suspension file | 3 ___ erase | 5 ___ tab |
| 2 ___ storage box | 4 ___ legal | 6 ___ insert |

- A a piece of plastic on a suspension file
- B a file that hangs inside a drawer
- C a piece of paper inside a tab
- D a place where you can put things
- E to remove something from a surface or disk
- F a large size of paper

4 Choose the word that is closest in meaning to the underlined part.

- 1 Put these files in a folder with metal rings.
A ring binder B suspension file C tab
- 2 This office needs more space for keeping items that are not in use.
A inserts B storage C legal
- 3 Put that document into the grey large, rectangular container.
A clear pocket B box file C ring binder
- 4 Put that picture inside a plastic envelope.
A storage box B clear pocket C tab

5 Listen and read the advert again. Say five things you can buy from the store.

Listening

6 Listen to a conversation between a secretary and a salesperson at a stationery company. Check (✓) the things the administrative assistant orders.

- | | |
|------------------------|---------------------|
| 1 ___ box files | 4 ___ storage boxes |
| 2 ___ ring binders | 5 ___ CDs |
| 3 ___ suspension files | 6 ___ clear pockets |

7 Listen again and complete the conversation.

Salesperson: The Stationery Store, this is Mike speaking. How can I help you?

Secretary: Hi, I'd like to place an order for some 1 _____ supplies.

Salesperson: No problem, what would you like?

Secretary: First of all, I need some 2 _____.

Salesperson: Okay, they come in two sizes, 3 _____ and A4. Which would you like?

Secretary: The legal. I'll take a dozen of those in gray.

Salesperson: Great. Anything else?

Secretary: I need seventy red 4 _____ and three hundred 5 _____.

Salesperson: Got it. Do you have an account with us or are you paying with a credit card?

Secretary: We have an account. It's Johnstone and Company, and the account number is 3748 3948.

Salesperson: Thanks. We have the address on the computer, so we'll deliver it tomorrow morning. Is sometime between nine and eleven okay?

Secretary: 6 _____, thanks.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

*I'd like to place an order ...
They come in two sizes.
I'll take ...*

Student A: You work at a stationery company. Talk to Student B about:

- the order
- account number
- delivery

Student B: You want to place an order for some stationery. Tell Student A what you want to buy.

Writing

9 Use the conversation from Task 8 to fill out the receipt.

The Stationery Store

COMPANY: _____

ACCOUNT NUMBER: _____

DATE: _____

| ORDER | PRICE |
|-------|-------|
| | |
| | |
| | |
| | |
| | |

THANKS FOR YOUR PURCHASE!
COME BACK SOON

**CAREER
PATHS**

Nursing

Virginia Evans
Kori Salcido - R.N.



Express Publishing

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Nurse Practitioners and Primary Care

It's a familiar scene: long waits at the doctor's office in crowded waiting rooms. But there's a way to avoid this and still get your check up! How? See an NP (nurse practitioner) instead.

NPs are an excellent point of entry health providers. They hold advanced degrees and must be board certified. So you're sure to get good care.

NPs provide a wide range of services. They conduct physical exams and diagnose illnesses. They prescribe treatment such as physical therapy. Many provide regular immunizations for children. Some even offer counseling services.

Though patients must see doctors for specialized care, nurse practitioners provide general healthcare without the wait.

Get ready!

1 Before you read the passage, talk about these questions.

- 1 What kind of jobs do nurse practitioners perform?
- 2 What qualifications must nurse practitioners hold?

Reading

2 Read the article from Healthy Living magazine. Then, mark the following statements as true (T) or false (F).

- 1 Patients are usually directed to NPs by point of entry health providers.
- 2 Nurse practitioners treat patients' physical and emotional needs.
- 3 Patients of NPs must visit a doctor's office to get shots.

Vocabulary

3 Match the words (1-5) with the definitions (A-E).

- | | |
|---|--|
| 1 <input type="checkbox"/> immunization | 4 <input type="checkbox"/> board certified |
| 2 <input type="checkbox"/> advanced degree | 5 <input type="checkbox"/> point of entry |
| 3 <input type="checkbox"/> physical therapy | |

- A a college degree higher than a bachelor's degree
- B having passed a test to document expertise in an area of medicine
- C treatment for an illness or injury by physical methods rather than the use of drugs
- D the administration of a medical substance to help protect a person against a disease
- E the first level of access to a system



immunization



physical therapy



physical exam



board certified



nurse practitioner

4 Fill in the blanks with the correct words and phrases from the word bank.

word BANK

prescribe nurse practitioner
diagnose counseling
physical exam

- 1 Mark is in constant pain. He hopes the doctor can quickly _____ the problem.
- 2 When Linda conducts a(n) _____, she checks all areas of a person's body.
- 3 Peter examined his patient, he decided to _____ medication to reduce the pain.
- 4 Todd offers _____ services. Many people tell him about their problems.
- 5 Molly likes learning about medicine and helping people. She wants to be a _____ when she grows up.

- 5 Listen and read the article again. How can a patient avoid a long wait at the GP's?

Listening

- 6 Listen to a conversation between an interviewer and a NP. Choose the correct answers.

- What is the dialogue mostly about?
 - challenges of being an NP
 - the steps of a physical exam
 - procedures that the NP performs
 - common illnesses that the NP sees
- According to the dialogue, what service does the nurse practitioner NOT offer?
 - prescribing medications
 - offering counseling
 - performing immunizations
 - diagnosing illnesses

- 7 Listen again and complete the conversation.

Interviewer: Thanks for agreeing to 1 _____. I know you nurse practitioners get busy.

NP: It's my pleasure.

Interviewer: So, what kind of 2 _____ do you provide?

NP: Lots. I conduct 3 _____ and perform immunizations for children. I also offer counseling.

Interviewer: What patients do you have today?

NP: My next patient has an injury from a 4 _____. I'm giving him physical 5 _____.

Interviewer: Are there any limits to the care you provide?

NP: Well, I don't perform surgery. But I do 6 _____ illnesses.

Speaking

- 8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

What kind of services do you provide?
My next patient has ...
Are there any limits to the care you provide?

Student A: You are an interviewer and you are writing an article about NPs. Ask Student B questions to find out about:

- services
- today's patients
- limits to care

Student B: You are a nurse practitioner. Answer Student A's questions.

Writing

- 9 Use the conversation from Task 8 to fill out the interviewer's notes.

Article about NPs

Services Provided:

Conducts _____

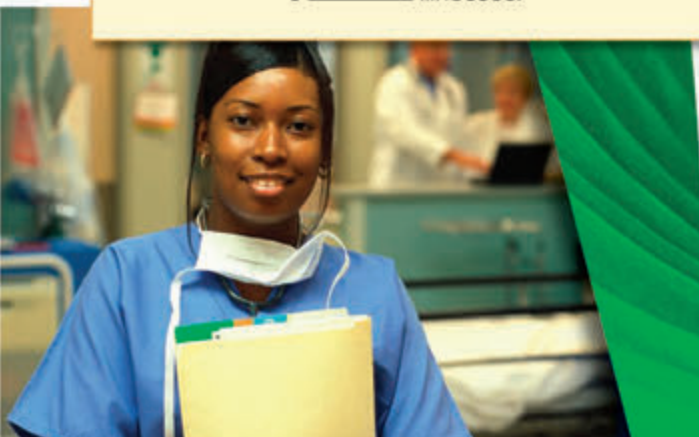
Performs _____

Offers _____

Limits to Care:

Does not _____

INTERVIEW NOTES



**CAREER
PATHS**

Beauty Salon

Jenny Dooley
Virginia Evans



Express Publishing

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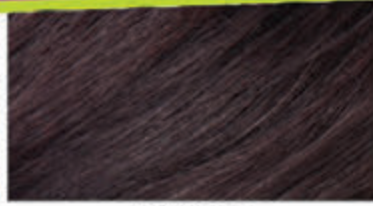
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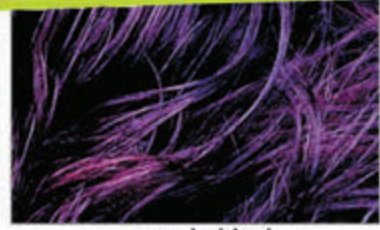
chestnut



dark brown



light brown



purple-black



auburn



copper



honey blonde



platinum

Get ready!

- 1 Before you read the passage, talk about these questions.
- 1 Why do some people color their hair?
 - 2 What are some advantages of different hair colors?

Reading

- 2 Read the information from a magazine article. Then, mark the following true (T) or false (F).
- 1 ___ Chestnut hair is easy to maintain.
 - 2 ___ Healthy red hair holds color well.
 - 3 ___ Blonde shades have low maintenance.

Vocabulary

- 3 Place the words and phrases from the word bank under the correct heading.

WORD BANK

auburn platinum chestnut
light brown copper honey blonde
golden blonde dark brown

| Brunette | Redhead | Blonde |
|----------|---------|--------|
| _____ | _____ | _____ |
| _____ | _____ | _____ |
| _____ | _____ | _____ |

color swatch book

Hairdresser Today - April Edition

The Best Color for You!

Choose from our new color swatch book

Browns and Blacks

Choose from our new color swatch book. There are plenty of reasons to go **brunette**. Maintenance is very easy, and dark hair reflects a lot of light, so it looks very shiny. But remember, if you're thinking about a very dark color (like **blue-black**) consult a professional. Once you dye your hair black, it is very difficult to change it back.

Hot colors

chestnut, dark brown, light brown

Reds

Do you enjoy getting a lot of attention? Then, try a

head-turning shade of red. **Redheads** must have very healthy hair in order for the hair color to last for a long time. But it's worth it! Just stay away from **purple-black** tones, which appear unnatural.

Hot colors

auburn, copper

Blondes

For a youthful, energetic look, try **blonde** shades. But it may take time to find the right shade to match your skin tone. Also, blonde hair costs a lot of money and time to maintain.

Hot colors

honey blond, platinum, golden blond

- 4 Write a word that is similar in meaning to the underlined part.

- 1 Tara has decided to dye her hair a pale yellow color. l _ n _ _
- 2 The stylist advised Sara against getting very dark black with tones of blue hair because it doesn't match her skin tone. _ _ u _ _ l _ c k
- 3 Helen is the only person with brown hair in her class. _ r _ n _ t _ _

- 5 Listen and read the information from a magazine article again. What must someone consider if they want to dye their hair blonde?

Listening

- 6 Listen to a conversation between a stylist and client at a hair salon. Choose the correct answers.

- What does the man help the woman with?
 - choosing a new hair color
 - maintaining a previous hair color
 - advising about hair care
 - picking the right hair cut
- What is true about the woman?
 - She has never dyed her hair before.
 - She visits the salon every two weeks.
 - She has naturally dark hair.
 - She wants to look younger.

- 7 Listen again and complete the conversation.

Stylist: Good morning, Mrs McAllen. You're here for a 1 _____ consultation, aren't you?

Client: That's right. I really want to change my look.

Stylist: Well, let's talk about your options. First, do you want to go lighter or 2 _____?

Client: I've always wanted to try 3 _____ hair.

Stylist: Okay, blonde is very popular. But you should know that you'd have to come in every 2 to 4 weeks for touch-ups.

Client: Wow, that could get 4 _____.

Stylist: On the other hand, blonde hair typically makes women look younger.

Client: Really? Maybe blonde isn't such a great idea then. What are some low-maintenance options?

Stylist: Well, you have 5 _____ hair. We could give you light brown instead.

Client: I want a bigger change from my natural color. How about red shades?

Stylist: I think copper red would look fantastic on you. And it's a lot easier to maintain than blonde.

Client: That sounds perfect! Let's see how I look as a 6 _____!



Speaking

- 8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

I really want to change my look.

First, do you want to go lighter or darker?

I think ... would look fantastic on you.

Student A: You are a stylist at Bella Salon. Talk to Student B about:

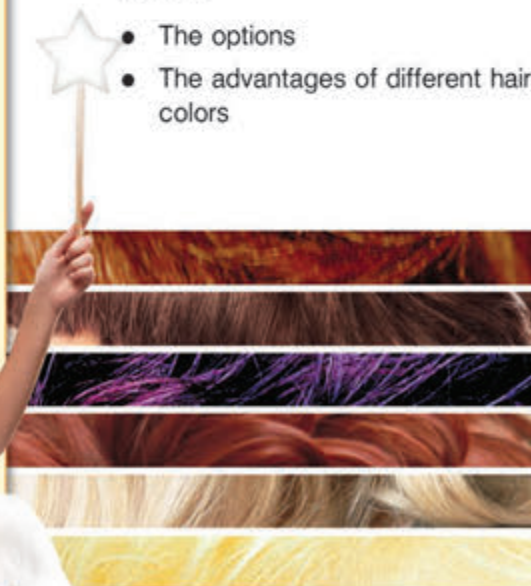
- his or her color preferences
- the color's advantages and disadvantages
- suitable colors for the client

Student B: You are a client. Based on Student A's advice, choose a hair color.

Writing

- 9 You are a colorist. Use the conversation from Task 8 to write notes about the client's change of hair color. Write about:

- The options
- The advantages of different hair colors



**CAREER
PATHS**

Banking

Virginia Evans
Ken Gilmore, MBA



Express Publishing

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DRURY

SAVINGS BANK

one-on-one savings plans!

At Drury Savings Bank, our primary goal is customer satisfaction. That's why we encourage you to open a **savings account*** with us. It's a great way to improve your financial stability and quality of life.

Our employees develop one-on-one savings plans. That means each **depositor** receives individual attention from our staff. We're currently offering great **interest rates**. The more you **deposit**, the more **interest** you **earn**. So what are you waiting for? Schedule an appointment, and we'll help plan your **long-term** financial goals.

*All savings accounts have a minimum balance requirement. Monthly withdrawals are limited.



Vocabulary

3 Match the words (1-5) with the definitions (A-E).

- | | | |
|----------------|------------------|-----------------|
| 1 ___ deposit | 3 ___ depositor | 5 ___ long-term |
| 2 ___ interest | 4 ___ withdrawal | |

- A lasting for a long time
 B when you take money from an account
 C someone who puts money into an account
 D a percentage earned on an amount of money
 E to put money into an account

4 Fill in the blanks with the correct words and phrases from the word bank.

word BANK

earn interest rate savings account
 limit minimum balance

- Tim was fined when his account fell below the _____.
- Many banks _____ savings withdrawals to six per year.
- The woman deposited the money from her paycheck into a(n) _____.
- With the high rates, the man was able to _____ some extra money.
- The man kept his money in an account with an excellent _____.

Get ready!

1 Before you read the passage, talk about these questions.

- What encourages people to open savings accounts?
- What are some restrictions on savings accounts in your country?

Reading

2 Read the bank advertisement. Then, mark the following statements as true (T) or false (F).

- ___ Depositors can develop different savings plans.
- ___ Larger accounts earn more money than smaller accounts.
- ___ Customers can open savings accounts with any amount of money.

- 5 Listen and read the advertisement again. Is it possible to keep a savings account open with no money in it?

Listening

- 6 Listen to a conversation between a teller and a customer. Choose the correct answers.

- What is the conversation mostly about?
 - making a withdrawal
 - reducing account fees
 - opening a savings account
 - checking on interest rates
- Why will the man pay a fee?
 - He is opening a new account.
 - He is ordering a cashier's check.
 - He already withdrew money this month.
 - His account doesn't have enough money.

- 7 Listen again and complete the conversation.

Teller: Is this correct, Mr. Jones? You want to take three hundred out of your 1 _____?

Customer: That's right. Why, is there a problem?

Teller: A small one. You have the money. But your account is 2 _____ to one withdrawal a month.

Customer: Oh, and I 3 _____ money last week to make a cashier's check. Well, I really need the cash.

Teller: Are you sure? There will be a 4 _____.

Customer: 5 _____ is it?

Teller: It's twenty dollars.

Customer: I don't 6 _____ . I'll just pay the fee.

Speaking

- 8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

Is this correct ...

Your account is limited to ...

There will be a fee ...

Student A: You are a banker. Talk to Student B about:

- his/her account
- the withdrawal limit
- the fee he must pay to withdraw

Student B: You are making a withdrawal. Talk to Student A about the withdrawal limit fee.

Writing

- 9 Use the advertisement and the conversation from Task 8 to fill out the paperwork.

Customer Name: _____

Account Number: _____

Type of Transaction: _____

Fee: Y / N

If yes, reason for fee: _____

Fee Amount: _____

Total Transaction Amount: _____



**CAREER
PATHS**

Agriculture

Neil O'Sullivan
James D. Libbin



Express Publishing

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stunted



wilted

browning

stippled

University of Jacksonville

Extension Office: Crop and Field Problems

Who we are

We are **agricultural advisors** with extensive experience in diagnosing crop and field problems. Our services are available to the general public.

What we can do for you - We can provide technical assistance in a variety of ways ranging from advice on crop selection to on-site and laboratory diagnosis.

On site diagnosis

Give us a call if your plants are **stippled**, **stunted**, **wilting**, or **browning**. We attempt to establish **symptom patterns** for small groups of plants. For larger problems, we attempt to identify the **field pattern**. Once this information has been gathered, we can usually provide a definitive diagnosis using our **symptomology keys**.

Laboratory diagnosis

When a symptomology key does not provide a definitive diagnosis, we usually turn to lab analyses. These tests can identify if a **symptom** is caused by **biotic** or **abiotic** factors.

How to contact us

If you'd like to get our advice, or set up an appointment for a field or crop diagnosis, please call 888-555-0505 or send an email to diagnosis@extension.ur.edu.

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Reading

2 Read the webpage from an agricultural extension office. Then, choose the correct answers.

- 1 What is the purpose of the webpage?
 - A to explain a diagnostic technique
 - B to offer advice on diagnosing problems
 - C to give information about services
 - D to list common causes of crop problems
- 2 Who does the office provide assistance for?
 - A college students
 - B the general public
 - C laboratory scientists
 - D agriculture professors
- 3 Which service is NOT provided?
 - A advice on growing crops
 - B on-site diagnosis of problems
 - C laboratory analysis of samples
 - D preparation of new fields

Vocabulary

3 Match the words (1-5) with the definitions (A-E).

- | | |
|---------------------|------------------------|
| 1 ___ abiotic | 4 ___ symptomology key |
| 2 ___ brown | 5 ___ symptom |
| 3 ___ field pattern | |

- A to change color
- B non-living
- C a sign that indicates disease
- D a tool used to diagnose diseases
- E a sign of disease that occurs throughout an area

Get ready!

1 Before you read the passage, talk about these questions.

- 1 What are some signs that crops are failing?
- 2 What are some ways to save failing crops?



Speaking

- 8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

What's the problem with your corn?

I noticed the tops of some of the plants were ...

And what happened next?

Student A: You are an agricultural advisor. Ask Student B about:

- crop problems
- symptoms
- changes

Student B: You are a farmer. Answer Student A's questions.

- 4 Fill in the blanks with the correct words and phrases from the word bank.

WORD BANK

biotic stunted wilt
stippled symptom pattern

- 1 _____ leaves are covered with spots.
 - 2 A _____ plant will be much smaller than others.
 - 3 Many crop problems have _____ causes.
 - 4 The crops started to _____ in the heat.
 - 5 Researchers are analyzing the _____.
- 5 Listen and read the webpage from an agricultural extension office again. What happens when a symptomology key doesn't provide a definite diagnosis?

Listening

- 6 Listen to a conversation between an agricultural advisor and a farmer. Check (✓) the symptoms of the farmer's corn.
- 1 wilting
 - 2 drying out
 - 3 browning tops
 - 4 blackened roots
 - 5 stunted growth

- 7 Listen again and complete the conversation.

Advisor: Mr. Fussel, what's the problem with your corn?
Farmer: Well, 1 _____ even though I gave them plenty of water and fertilizer.
Advisor: 2 _____ first noticed the problem.
Farmer: That would have been 3 _____. First, I noticed the tops of some of the plants were browning.
Advisor: What happened next? 4 _____?
Farmer: Not that. Next, they 5 _____ slightly. That's when I 6 _____ water.

Writing

- 9 Use the conversation from Task 8 to write an email to an agricultural advisor. Include: your problem, crop symptoms, and changes you've seen.

To: Farmadvisor@farmsite.com
 From: THernandez@Hfarm.com

To _____

 Sincerely _____   

**CAREER
PATHS**



Medical

Virginia Evans

Jenny Dooley

Trang M. Tran, M.D.



Express Publishing

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HEARTLAND HOSPITAL



STAFF DIRECTORY

FIRST FLOOR

Dr. Paul Sartin, **cardiologist, surgeon** / Office: 100
See for: Heart Disease, Heart Surgery

Dr. Lydia Greenwich, **anesthesiologist** / Office: 101
See for: Surgery Pain Relief and Preparation

Dr. Richard Collins, chief **pediatrician** / Office: 102
See for: Children's Health

Dr. Ann Harold, **obstetrician** / Office: 103
See for: Labor, Pregnancy

Dr. Thomas Locke, chief **radiologist** / Office: 104
See for: X-rays, CT Scans

Carol Howard, **lab technician**
See for: Test Results

SECOND FLOOR

Dr. Rowan McNeil, **general practitioner** / Office: 202
See for: General Medicine

Carol Simmons, NP, head **nurse** / Office: 203
See for: Nursing Schedules

Dr. Charles Thiel, **pharmacist** / Office: 204
See for: Prescriptions



general practitioner



pharmacist



radiologist



nurse



lab technician

Get ready!

1 Before you read the passage, talk about these questions.

- Who are some different people who work in a hospital?
- What are some special kinds of doctors?

Reading

2 Read the hospital directory. Then, mark the following statements as true (T) or false (F).

- A patient having heart surgery will visit Dr. Sartin and Dr. Greenwich.
- Dr. Harold is best qualified to examine a sick four-year-old.
- Pregnant women meet their doctor on the second floor.

Vocabulary

3 Match the words (1-5) with the definitions (A-E).

- | | |
|---|---------------------------------------|
| 1 <input type="checkbox"/> lab technician | 4 <input type="checkbox"/> nurse |
| 2 <input type="checkbox"/> anesthesiologist | 5 <input type="checkbox"/> pharmacist |
| 3 <input type="checkbox"/> general practitioner | |

- A a doctor who provides many kinds of care to adults and children
- B a doctor who renders patients unconscious or prevents them from feeling pain
- C a medical professional who works with samples in a laboratory
- D a medical professional who helps a doctor and cares for patients
- E a person who fills prescriptions and gives medicine

4 Read the sentence and choose the correct word.

- 1 The **radiologist** / **pharmacist** has prepared the X-rays.
- 2 The **lab technician** / **pediatrician** is checking on the three-year-old.
- 3 A great **obstetrician** / **cardiologist** treated me after my heart attack.
- 4 The **anesthesiologist** / **obstetrician** says the baby is doing fine.
- 5 Dr. Brown is a famous transplant **surgeon** / **nurse**.

5 Listen and read the hospital directory again. Who are some of the hospital staff and what are their duties?

Listening

6 Listen to a conversation between a doctor and a nurse. Choose the correct answers.

- 1 What is the main idea of the conversation?
A a patient's appointment
B a patient's missing chart
C a patient's blood pressure
D a patient's general practitioner
- 2 What will the woman likely do next?
A examine the patient
B call the cardiologist's office
C take the patient's blood pressure
D lead the man to the patient's room

7 Listen again and complete the conversation.

Nurse: Dr. McNeil, could you come over here 1 _____ ?

Doctor: Sure, Carol. What do you need?

Nurse: I just took Ms. Greyson's blood pressure. It's one fifty 2 _____ ninety-two.

Doctor: Hmm. That's 3 _____.

Nurse: Yes, I 4 _____, too.

Doctor: Who's her 5 _____ ?

Nurse: Her chart says it's Dr. Sartin.

Doctor: He'll want to 6 _____ this.

Nurse: I'll let his office know to set up an appointment.

Doctor: Good idea. Thanks for consulting me.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

Can you come over here?

What do you need?

Who is ...

Student A: You are a nurse. Talk to Student B about:

- a problem with a patient
- what you think about it
- what to do next

Student B: You are a doctor. Talk to Student A about a patient.

Writing

9 Use the conversation from Task 8 to fill out the consultation form.

Heartland Hospital
STAFF DIRECTORY 

Patient Consultation Form

Patient: _____

Doctor Consulted: _____

Issue: _____

Solution: _____

**CAREER
PATHS**

Mechanics

Jim D. Dearholt



Express Publishing

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GRINNEL
X43

Coming in at 1,000 pounds with a full tank, the Grinnel X43 is our entry-level touring motorcycle and among our best selling!



With state-of-the-art, computer-adjusted front and rear suspension systems and comfortable seating it offers an amazingly smooth riding experience for those just entering the world of motorcycles.

The X43's **handlebars** are designed to reduce strain and put the driver in full control. Convenient placement of the **throttle**, the **clutch lever**, and the **shift lever** make this bike simple and easy to operate for a first-time driver. Unlike **chain** or **belt drives**, the X43's **shaft drive** is extremely durable and requires little maintenance. It's just one example of the X43's reliability. Our aim is to ensure that you get the smoothest ride with minimal maintenance.

And how do we accomplish that goal? We start with a high-strength steel **frame**. The **fork tubes** and durable **triple trees** provide the front suspension, while the **swingarm** with computer-controlled **shock absorbers** creates the rear suspension. A six-gallon **fuel tank** ensures you can take a long ride without refueling. And not only is the X43 supported by a standard steel **side stand**, it is supported by Grinnel's three-year, unlimited mileage warranty. Check out the Grinnel X43 today, and get into the world of riding motorcycles.

Get ready!

1 Before you read the passage, talk about these questions.

- 1 What are some of the parts of a motorcycle?
- 2 What keeps a motorcycle standing when it is not being driven?

Reading

2 Read the advertisement for a motorcycle. Then, choose the correct answers.

- 1 What is the advertisement mostly about?
 - A different types of options for a motorcycle
 - B types of products from a motorcycle company
 - C a motorcycle designed for touring
 - D available parts for a motorcycle
- 2 What is true of the X43 model?
 - A It is built for racing.
 - B It has an optional side stand.
 - C It is recommended for first-time drivers.
 - D It weighs less than 900 pounds with fuel.
- 3 Which is NOT a feature of the X43?

| | |
|--------------|-------------------|
| A side stand | C steel frame |
| B belt drive | D shock absorbers |

Vocabulary

3 Read the sentence pair. Choose where the words best fit the blanks.

1 motorcycle / frame

- A A _____ is similar to a bicycle with an engine.
- B The wheels, seat, and other parts attach to the _____.

2 side stand / handlebars

- A The _____ allow drivers to park a motorcycle.
- B _____ are used to make turns.

3 chain drive / shaft drive

- A A _____ has a long rod in the drive train.
- B Gears are an important part of a _____.

4 fuel tank / belt drive

- A Gasoline or diesel is stored in the _____.
- B A _____ connects the engine and rear wheel.

- 4 Place the words and phrases from the word bank under the correct heading.

Word BANK

clutch lever swingarm fork tube
 shift lever throttle triple tree
 shock absorber

| Front suspension | Rear suspension | Controls |
|------------------|-----------------|----------|
| | | |
| | | |
| | | |
| | | |

- 5 Listen and read the advertisement for a motorcycle again. What type of rider is the X43 aimed at?

Listening

- 6 Listen to a conversation between two mechanics. Mark the following statements as true (T) or false (F).

- ___ The motorcycle was in an accident.
- ___ The mechanic wants to replace the fork.
- ___ The frame is the most damaged part.

- 7 Listen again and complete the conversation.

Mechanic 2: That depends. The 1 _____ are beyond repair.

Mechanic 1: No doubt about that.

Mechanic 2: I think I could find a reasonably priced replacement.

Mechanic 1: OK. How about the 2 _____?

Mechanic 2: I went over it with a 3 _____ and didn't find a single crack.

Mechanic 1: That's incredible!

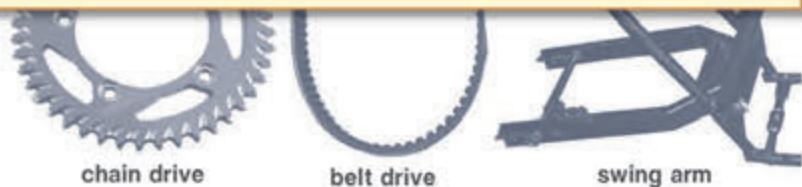
Mechanic 2: There was some damage, but it's 4 _____.

Mechanic 1: So do you think it's still 5 _____?

Mechanic 2: Sure, but 6 _____ a lot of work. We'll also need to replace both wheels, the brakes, and the swingarm.

Mechanic 1: 7 _____?

Mechanic 2: That's all I could find.



Speaking

- 8 With a partner, act out the roles below based on Task 7. Then switch roles.

USE LANGUAGE SUCH AS:

How about the ...?
 So do you think it ...?
 We'll also need to ...

Student A: You are a mechanic. Talk to Student B about:

- the damage to a motorcycle
- what needs to be repaired
- if the motorcycle can be ridden

Student B: You are a mechanic. Talk to Student A about the damage to a motorcycle.

Writing

- 9 Use the advertisement and conversation from Task 8 to fill out an assessment of a damaged motorcycle. Include: damaged parts, repairs required, and parts that are safe.

Damage Assessment

Customer name: _____

Damaged parts: _____

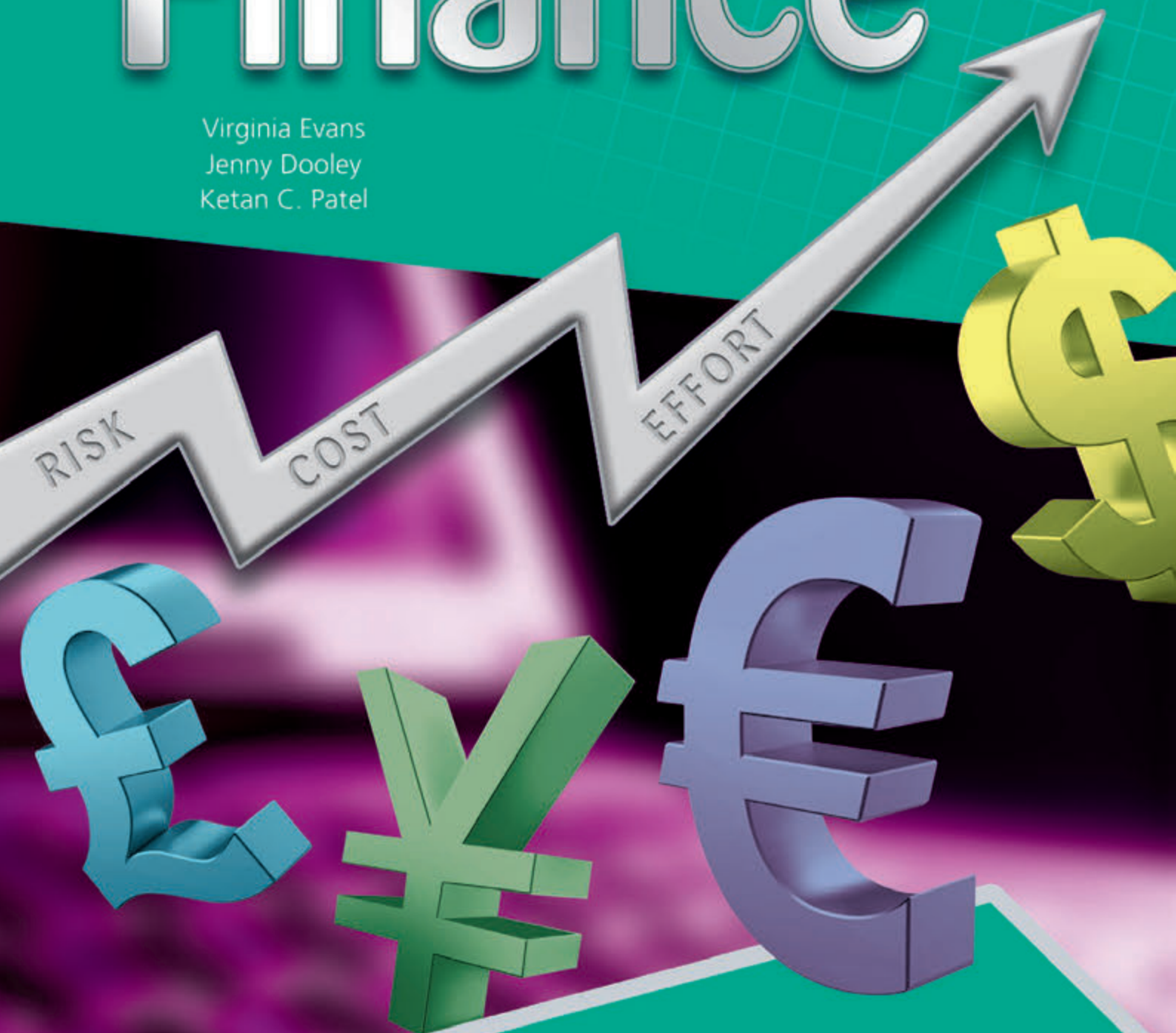
New parts required: _____

Safe parts: _____

**CAREER
PATHS**

Finance

Virginia Evans
Jenny Dooley
Ketan C. Patel



Express Publishing

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2 Investment styles

The Tulsa Chronicle

Investing Tips

from Larry Dean

The **key element** that will determine your investing style is **risk tolerance**.

With all the market's ups and downs, investing can be stressful. That's why it's important to choose an investment style that works for you. The key element that will determine your investing style is **risk tolerance**.

Some people have a naturally high level of **risk aversion**. If this is you, go with investments that are virtually **risk-free**, like bonds and CDs. Perhaps you are considering **personal investments** to sustain you after **retirement**. You also should maintain a **conservative** investing approach. Stay in your **comfort zone**. Avoid the stress of market fluctuations.

Some of you, on the other hand, are more willing to take chances. You will risk great losses for a chance at great returns. You should go with a more **aggressive** investment approach in stocks. And for those of you in the middle, **moderate** investments are the way to meet your **goals**. Invest in mutual funds to limit risk but increase returns.



Get ready!

1 Before you read the passage, talk about these questions.

- 1 How willing are you to take risks with your money? Why?
- 2 How does risk affect a person's investing style?

Reading

2 Read the investment advice column. Then, choose the correct answers.

- 1 What is the purpose of the article?
A to evaluate levels of risk aversion
B to explain conservative investment strategies
C to compare high and low risk investments
D to give advice based on investment styles
- 2 What investments should people with moderate to high risk aversion NOT purchase?
A bonds C mutual funds
B CDs D stocks
- 3 According to the column, what are the benefits of bonds?
A They have almost no risk.
B They benefit from market fluctuations.
C They give higher returns than mutual funds.
D They provide a chance to make large profits.

Vocabulary

3 Write a word that is similar in meaning to the underlined part.

- 1 Most people are comfortable with a medium level of risk. _ _ d _ _ a _ _
- 2 Candice is a cautious investor. _ o _ _ e _ v _ _ i _ _
- 3 Jon worked hard to meet his planned level of achievement. _ o _ _
- 4 His high reluctance to face the chance of loss keeps him from making most investments. _ _ s _ _ a _ _ r _ i _ _

4 Read the sentence pair. Choose where the words best fit the blanks.

1 personal investment / retirement

A Dad went into _____ at age 60.

B Buying the shop was a _____.

2 aggressive / risk-free

A Joe made _____ investments, hoping for a huge return.

B These government bonds are _____.

3 comfort zone / risk tolerance

A Some stock purchases require a high _____.

B CDs are safe and should be in any investors _____.

5 Listen and read the page from the investment advice column again. If you are not afraid of risk but at the same time like to play safe, what should you invest in?

Listening

6 Listen to a conversation between a financial advisor and a customer. Mark the following statements as true (T) or false (F).

1 ___ The customer has high risk aversion.

2 ___ The advisor suggests investing in a moderate investment.

3 ___ A mutual fund is out of the customer's comfort zone.

7 Listen again and complete the conversation.

Advisor: Well. The first thing to consider is how much 1 _____ you are willing to take.

Customer: I'm not sure. I certainly don't want to 2 _____.

Advisor: Okay. Are you willing to risk losing half of your money 3 _____ double it?

Customer: Yeah, but I couldn't handle losing much more than that.

Advisor: All right. You have a fairly 4 _____ of risk aversion.

Customer: So, what should I invest in?

Advisor: There are a number of options. A mutual fund is a fairly 5 _____ investment.

Customer: I've heard of those. They aren't 6 _____?

Advisor: They involve some risk, but nothing that would put you out of your comfort zone.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

The first thing to consider is ...

You have a ...

There are a ...

Student A: You are a financial advisor. Talk to Student B about:

- his/her level of risk aversion
- an appropriate investing style
- possible investments

Student B: You are a new investor. Talk to Student A about investing and risk.

Writing

9 Use the conversation from Task 8 to fill out the risk aversion worksheet for the client.

Jackson Investments

New Client Risk Aversion

Client Name: _____

How much of an investment is the client willing to risk? _____

Client's risk aversion level: _____

Suggested investments: _____

**CAREER
PATHS**

Construction I

Buildings

Virginia Evans
Jenny Dooley
Jason Revels



Express Publishing

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SUE GABLE

Expert Mason

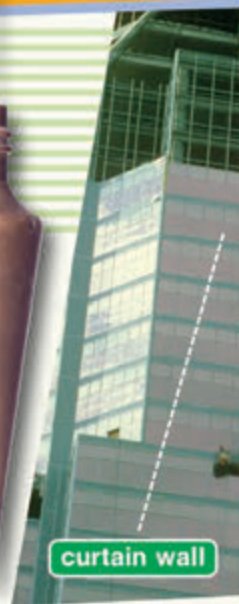
Whether you want a decorative brick wall or a complete brick building, I am the **mason** for you. I have over 20 years of **masonry** experience. My recent work includes:

- leading the installation of the exterior **bearing wall** at the Two Oaks Shopping Center
- designing and installing numerous **curtain walls** in the Fair Meadows housing project
- installing a complex **multiwythe cavity wall** at the Jefferson Government Building

With my experience, I can recommend the right design for your needs. For example, do you need room for drainage but still want a brick wall? A **single wythe veneer** wall with airspace backing is right for you.

I've used every type of **masonry unit**, including brick, concrete, and limestone. I can make the perfect **mortar** mix for any material to guarantee a strong, long-lived wall. I am also familiar with using **grout** to embed steel reinforcement in a wall.

I would be happy to visit your building site for a free consultation. Please call me at (797) 555-2356 or email sue@gablemasonry.com.



Vocabulary

3 Match the words (1-6) with the definitions (A-F).

- | | |
|--------------------|--------------------|
| 1 ___ cavity wall | 4 ___ veneer |
| 2 ___ single wythe | 5 ___ curtain wall |
| 3 ___ bearing wall | 6 ___ multiwythe |

- A a wall with a thickness of one block
 B a wall that bears a weight down to a foundation structure
 C a wall with a thickness of two or more blocks
 D a wall that has one masonry layer backed by an airspace
 E a wall that is non-structural and only serves to keep out the weather
 F a wall that has two skins made from brick or concrete separated by a hollow space

4 Fill in the blanks with the correct words and phrases from the word bank.

Word BANK

masonry unit mortar
 masonry mason grout

- Use a special _____ to embed the rebar in this wall.
- The construction company is hiring a new _____.
- Use standard _____ to join the bricks together.
- This concrete _____ weighs eight kilograms.
- _____ involves the use of many materials other than bricks and cement.

Get ready!

1 Before you read the passage, talk about these questions.

- What material does a mason work with?
- What connects bricks in a brick wall?

Reading

2 Read the ad for a mason. Then, mark the following statements as true (T) or false (F).

- ___ The mason recently completed a single wythe veneer wall.
- ___ The mason mixes her own mortar.
- ___ Grout is used to embed brick into a wall.

- 5 Listen and read the ad for a mason again. What types of walls has the mason recently created?

Listening

- 6 Listen to a conversation between a mason and a potential customer. Choose the correct answers.

- What is the conversation mainly about?
 - the benefits of masonry
 - when construction can begin
 - how masonry can lower construction costs
 - why masonry is being used more often
- Why does the woman recommend using masonry?
 - It is less expensive.
 - It looks more attractive.
 - It lasts longer than other materials.
 - It can be constructed faster than other materials.

- 7 Listen again and complete the conversation.

Customer: Hi, Sue. My name is Dave Chandler. I'm considering a new office for my business. I'm thinking of going with masonry.

Mason: That's a great idea. What can I tell you?

Customer: Well, I don't know too much about it. Is it really 1 _____ than a timber or concrete frame?

Mason: I think so. Masonry has a lot of benefits.

Customer: How so?

Mason: For one, masonry structures 2 _____ than other kinds of structures.

Customer: Oh, yeah? How much longer?

Mason: A well-built brick structure has a life of more than fifty years. That's 3 _____ thirty years for steel or reinforced concrete.

Customer: That's impressive. But 4 _____, I won't need this building in fifty years.

Mason: 5 _____. But it will increase the value of your property. That could be important if you decide to sell it.

Customer: I guess that 6 _____.

Speaking

- 8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

I'm considering ...

For one, masonry structures ...

To be honest, ...

Student A: You are a mason. Talk to Student B about:

- masonry and other frame types
- the strength of masonry
- the value of masonry

Student B: You are considering masonry for a new building. Talk to Student A about masonry.

Writing

- 9 Use the ad and the conversation from Task 8 to write an informational brochure about masonry walls. Write about:

- types of masonry walls
- materials used
- benefits of masonry



**CAREER
PATHS**

Plumbing

Virginia Evans
Jenny Dooley
Samuel Wright



Express Publishing

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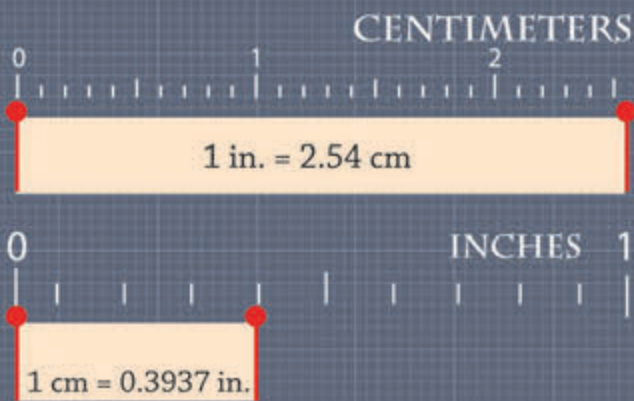
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Aplumb Supply

Measurements and Sizing

Aplumb is proud to serve clients around the world. We know that not all customers use the same measurements. For our North American clients, we provide **imperial** measurements. All pipe sizes are listed in **inches**. Weight measurements appear in **pounds**.

For clients outside North America, we also provide **metric** measurements. Pipe sizes are listed in **millimeters**. Weight measurements appear in **kilograms**.

Each region has its own page. Just click the link for the measurements you need. To convert measurements between systems, use our **conversion** calculators. Click 'Conversions'. You can convert inches to **centimeters** in an instant.

IMPERIAL

INCHES

POUNDS

METRIC

METERS

KILOGRAMS

CONVERSIONS

1 pound = 0.43 kilos

Note: Pressure measurements appear in both pounds per square inch (PSI) and kPa (kiloPascals) on all pages.

Get ready!

1 Before you read the passage, talk about these questions.

- 1 What are the two major measurement systems? Where are they used?
- 2 What are some common measures in the two systems?

Reading

2 Read the website for a pipe supplier. Then, mark the following statements as true (T) or false (F).

- 1 PSI is used in the metric system.
- 2 Kilograms are provided with the imperial product listings.
- 3 Aplumb lists two types of pressure measurement for each product.

Vocabulary

3 Match the words (1-6) with the definitions (A-F).

- | | |
|---------------------------------------|---------------------------------------|
| 1 <input type="checkbox"/> pound | 4 <input type="checkbox"/> centimeter |
| 2 <input type="checkbox"/> inch | 5 <input type="checkbox"/> kilogram |
| 3 <input type="checkbox"/> conversion | 6 <input type="checkbox"/> millimeter |

- A a metric measure of distance equal to 1/100 of a meter
- B the act of changing a measurement from one system to another
- C an imperial measure of distance
- D a metric measure of distance equal to 1/1000 of a meter
- E a metric measure of weight
- F an imperial measure of weight

4 Read the sentence pair. Choose where the words best fit the blanks.

1 **imperial / metric**

- A The _____ system uses pounds, not kilograms.
- B An inch is not a(n) _____ measurement.

2 **psi / kPa**

- A Metric pressure is measured in _____.
- B Imperial pressure is measured in _____.

- 5 Listen and read the pipe supplier's website again. What do the different systems use to measure length?

Listening

- 6 Listen to a conversation between two plumbers. Choose the correct answers.

- What is the conversation mainly about?
 - the length of a pipe
 - the weight of a pipe
 - the location of a pipe
 - the pressure a pipe can contain
- What is true of the man?
 - He used the wrong type of pipe.
 - He made a similar mistake before.
 - He used to work in North America.
 - He had never used metric measurements.

- 7 Listen again and complete the conversation.

Supervisor: Bill, can I talk to you 1 _____ ?

Plumber: Sure, boss. What is it?

Supervisor: This pipe is 2 _____ .

Plumber: It is? But I measured it twice. It was twenty-five 3 _____ each time.

Supervisor: That explains it. You measured in inches. We need the measurement in 4 _____ .

Plumber: Oh, my mistake. I'm so used to the 5 _____ .

Supervisor: That 6 _____ with plumbers who worked in North America.

Plumber: It won't happen again. I'll cut a new pipe to twenty-five centimeters.

Speaking

- 8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

Can I talk to you?

This pipe is ...

You measured in ...

Student A: You are a supervisor. Talk to Student B about:

- a problem with a pipe
- the measurement system used
- why the problem occurred

Student B: You are a plumber. Talk to Student A about a problem with a pipe.

Writing


- 9 Use the conversation from Task 8 to fill out the memo.

Jackson Plumbing

Employee MEMO

Recently, an employee cut several pipes using the wrong system of measurement. Review the list below to be sure you're familiar with the correct units for each system.

| | Imperial | Metric |
|-----------|----------|--------|
| Weight: | _____ | _____ |
| Pressure: | _____ | _____ |
| Length: | _____ | _____ |



**CAREER
PATHS**

Architecture

Virginia Evans

Jenny Dooley

Dave Cook, AIA



Express Publishing

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DeGrasse Museum Presents

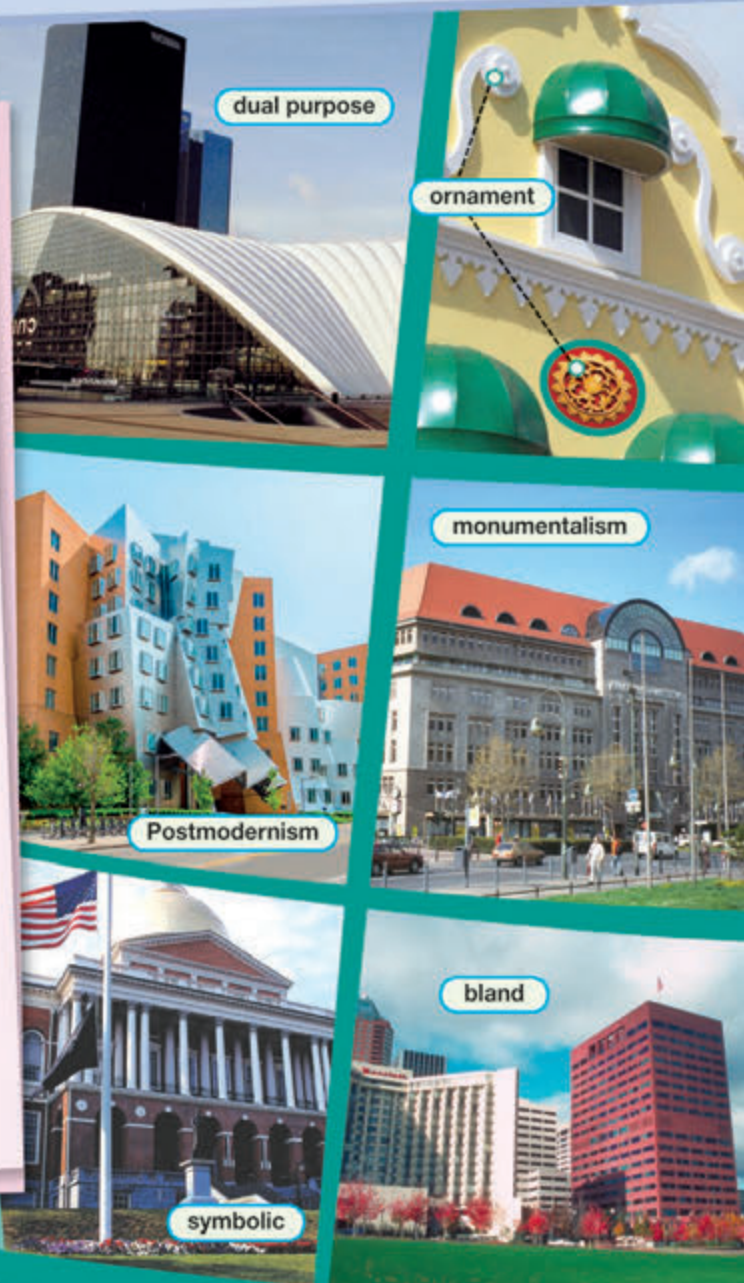
Postmodern Images: Reintroducing Beauty into Architecture

The DeGrasse Museum invites you to explore **Postmodernism** at a new exhibit. See 25 physical models and more than 100 photographs of notable Postmodern buildings.

This fascinating architectural style is a direct **countermovement** to early twentieth-century Modernism. While Modernism featured stark, **bland** designs, Postmodernism embraces color and **ornaments**. Its followers believe that architecture should be **dual purpose**, having both function and visual appeal. This **reactionary** attitude revived ideas from styles before Modernism.

Unexpected images and bold shapes **characterize** Postmodern architecture. **Monumentalism** is also apparent in the featured model of the Fadner Building. The building's **primary** design is based on Modernism, and from the ground to the fifteenth floor, it features simple lines and boxes. However, the top is a dramatic example of **double coding**. Neoclassical columns support a grand, asymmetrical structure that overhangs the street.

Don't miss two lectures by architectural historian Greta Moss. On Saturday, she will discuss the reasons for popular architecture's departure from Modernism. She will also address arguments from late twentieth-century Modernists. During her Sunday lecture, Moss will talk about the art and philosophy of Postmodernism. Learn about the importance of **symbolic** elements in Postmodern construction. This session will focus on the use of **icons** in several famous Postmodern buildings. Visit www.degrassemuseum.com for details and tickets.



Get ready!

1 Before you read the passage, talk about these questions.

- 1 What is the difference between Modern and Postmodern architectural features?
- 2 What is the artistic philosophy behind Postmodernism?

Reading

2 Read the brochure. Then, mark the following statements as true (T) or false (F).

- 1 ___ According to the brochure, foundations of Postmodernism came before Modernism.
- 2 ___ The exhibit's featured model is a blend of different architectural styles.
- 3 ___ One of the lectures will focus on similarities between Modern and Postmodern symbolism.

Vocabulary

3 Match the words (1-6) with the definitions (A-F).

- | | |
|---------------|---------------------|
| 1 ___ icon | 4 ___ characterize |
| 2 ___ bland | 5 ___ dual purpose |
| 3 ___ primary | 6 ___ Postmodernism |

- A an image that is associated with a particular idea
 B an architectural movement featuring functional and decorative elements
 C considered plain or uninteresting
 D most basic or important
 E to be a fundamental feature or quality of something
 F serving multiple functions

- 4 Fill in the blanks with the correct word or phrase from the word bank.

WORD BANK

monumentalism symbolic
double coding ornament
countermovement reactionary

- In a(n) _____, one set of ideas directly opposes another set of ideas.
 - The carving of a sword is _____ of the people's resistance to the government.
 - The fireplace is not real; it's just a(n) _____.
 - The blend of classical features with contemporary features is an example of _____.
 - "Advocates for Function" is a(n) _____ group of Modernists.
 - _____ usually features very large buildings with bold façades.
- 5 Listen and read the brochure again. What is the Postmodern view of functionalism?

Listening

- 6 Listen to a conversation between a museum guide and a visitor. Choose the correct answers.
- What is the conversation mainly about?
 - how to interpret Postmodern icons
 - notable Postmodern architects in the region
 - the differences between Postmodernism and previous styles
 - when Postmodernism became popular
 - According to the woman, what is a feature of the Fadner Building?
 - It is not functional.
 - It displays monumentalism.
 - It is very bland.
 - It features symbolism.

- 7 Listen again and complete the conversation.

Guide: Before we start the tour, does anyone have any questions?

Visitor: Are we going to 1 _____ of the Grasswood Center?

Guide: No. The Grasswood Center is actually not 2 _____.

Visitor: Really? It's so simple. I was 3 _____ be part of the exhibit.

Guide: I think you're confusing Postmodernism 4 _____.

Visitor: But the primary purpose of Postmodern buildings is to be functional. Isn't that why they're 5 _____?

Guide: Actually, it's the 6 _____. Strict functionalism is a feature of Modernism.

Speaking

- 8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

I was sure it would ...

Actually, it's the other ...

Let's look at ...

Student A: You are a museum guide. Talk to Student B about:

- a Postmodern exhibit
- the features of Postmodernism
- architectural styles of local buildings

Student B: You are a museum visitor. Talk to Student A about architectural styles of local buildings.

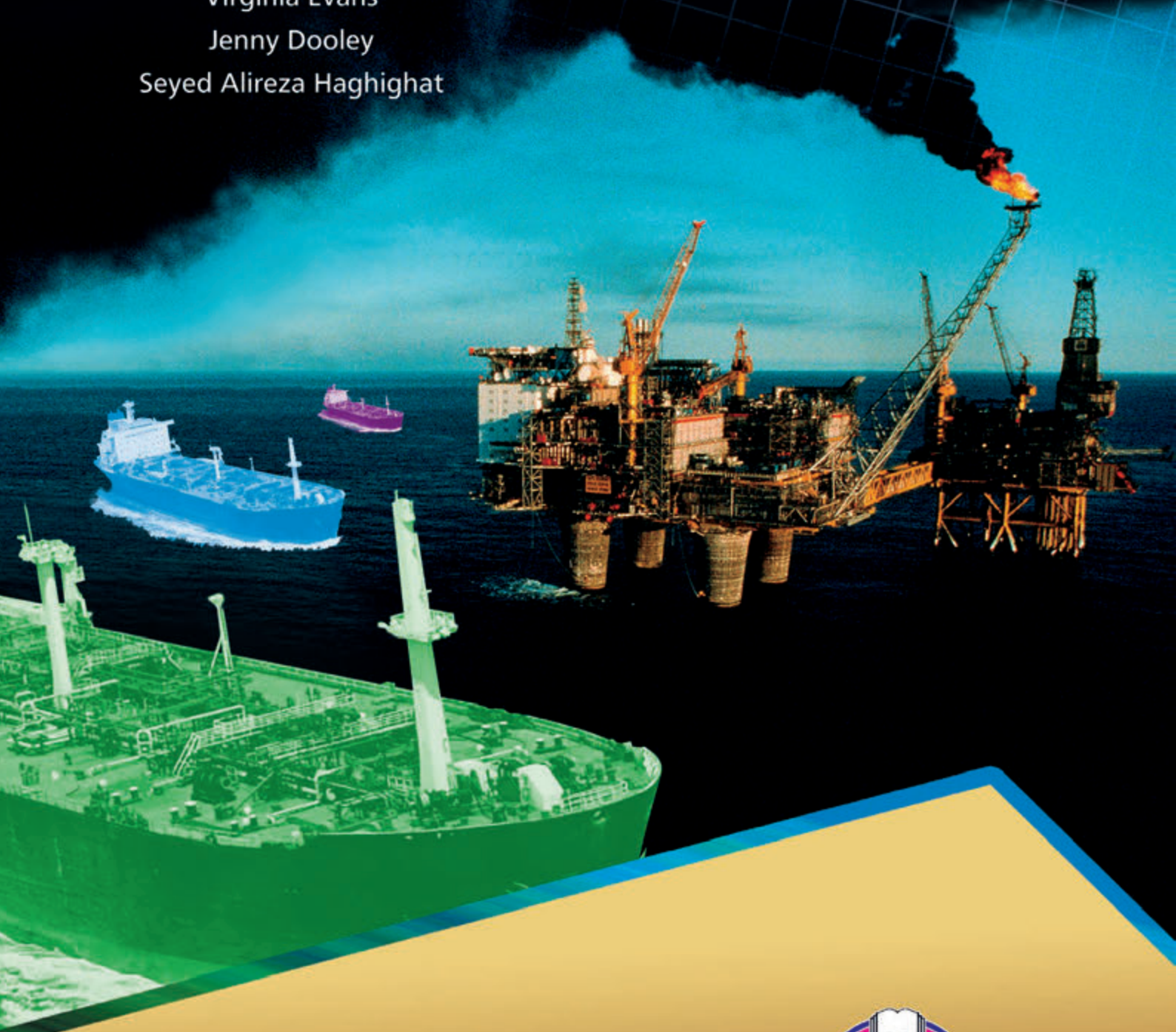
Writing

- 9 Use the reading passage and conversation to complete a feedback form about your museum tour. Include: the exhibit you visited, the information that the tour guide covered, and the most interesting fact you learned on the tour.

**CAREER
PATHS**

Petroleum I

Virginia Evans
Jenny Dooley
Seyed Alireza Haghigat



Express Publishing

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RIGWORKERWEEKLY

Slingsing Slang

One challenge new rig workers face is language. **Hands** don't think twice about using words like **possum belly**, **pill** or **flare**. They might think it's funny when the new guy confuses a **catwalk** with a **catline** or **wildcat**.

Most new workers get the idea of **fish** and **fishing**. However, other terms are not as clear. **Doghouse** and **knowledge box** are two such terms. In addition, most new hires do not know that **joint** is a length of pipe. Take the time to explain rig slang to new employees. It makes things easier when everyone is on the same page.

Get ready!

- 1 Before you read the passage, talk about these questions.
 - 1 What is the slang word for an experienced worker on an oil rig?
 - 2 What is slang for a platform on a rig?

Reading

- 2 Read the magazine article from *Rig Worker Weekly*. Then mark the following statements as true (T) or false (F).
 - 1 New rig workers can be confused by slang.
 - 2 It is hard to guess the meaning of some terms.
 - 3 New workers need to figure out the slang on their own.

Vocabulary

- 4 Fill in the blanks with the correct words and phrases from the word bank.

word BANK

catline doghouse fishing
flare knowledge box pill

- 1 The rig crew stayed in the _____ during the storm.
- 2 The toolpusher took some paperwork out of the _____.
- 3 The roughneck used a _____ to stop a leak.
- 4 Denise used a _____ to move the smaller equipment.
- 5 The worker tried _____ for the broken drill bit.
- 6 Bruce used a _____ to burn off the gas.

4 Read the sentences and choose the correct terms.

- 1 The **hand** / **fish** worked hard to finish the job.
- 2 The rig had a large **catwalk** / **possum belly** that was used for storing fluid.
- 3 The crew working on the **wildcat** / **joint** well hoped to find oil.
- 4 The workers ran out of pipe, so they had to order more **joints** / **hands**.
- 5 The men tried to retrieve the **possum belly** / **fish** but it was out of reach.
- 6 The roughneck crossed the **catwalk** / **wildcat** to talk to the toolpusher.

5 Listen and read the magazine article from *Rig Worker Weekly* again. How should an experienced rig worker help a new hire?

Listening

6 Listen to a conversation between two rig workers. Choose the correct answers.

- 1 What can be inferred about the new worker?
A He is confused by terms used on the rig.
B He is not dressed for bad weather.
C He is familiar with some slang terms.
D He is going to go inside the doghouse.
- 2 What will the workers likely do next?
A fasten together the joints C go to the doghouse
B take a tour of the rig floor D move the drilling pipe

7 Listen again and complete the conversation.

Experienced Worker: Hey, can you help me move some joints?
New Worker: Uh ... 1 _____ joints?
Experienced Worker: You must be new.
New Worker: Yes, I've never 2 _____ a rig before.
Experienced Worker: Okay. Well, joints are pieces of 3 _____
_____.
New Worker: Thanks. I'd be 4 _____ help. So ...
is the weather usually this bad?
Experienced Worker: Today's not so great, but we can always
go in the 5 _____ if it starts to rain.
New Worker: What's that?
Experienced Worker: It's a shelter on the 6 _____ . Now
let's get to work.

Speaking

8 With a partner, act out the roles below based on Task 7. Then switch roles.

USE LANGUAGE SUCH AS:

Can you help me ...?
What are ...?
Do you know what ...?

Student A: You are an experienced rig worker. Talk to Student B about:

- the kind of help you need
- oil rig language
- how to deal with bad weather

Student B: You are a new worker. Talk to Student A about working on the rig.

Writing

9 Use the conversation from Task 8 to fill out the rig worker's notes below.



Rig Worker's Notes

Slang
to remember

Knowledge box: _____

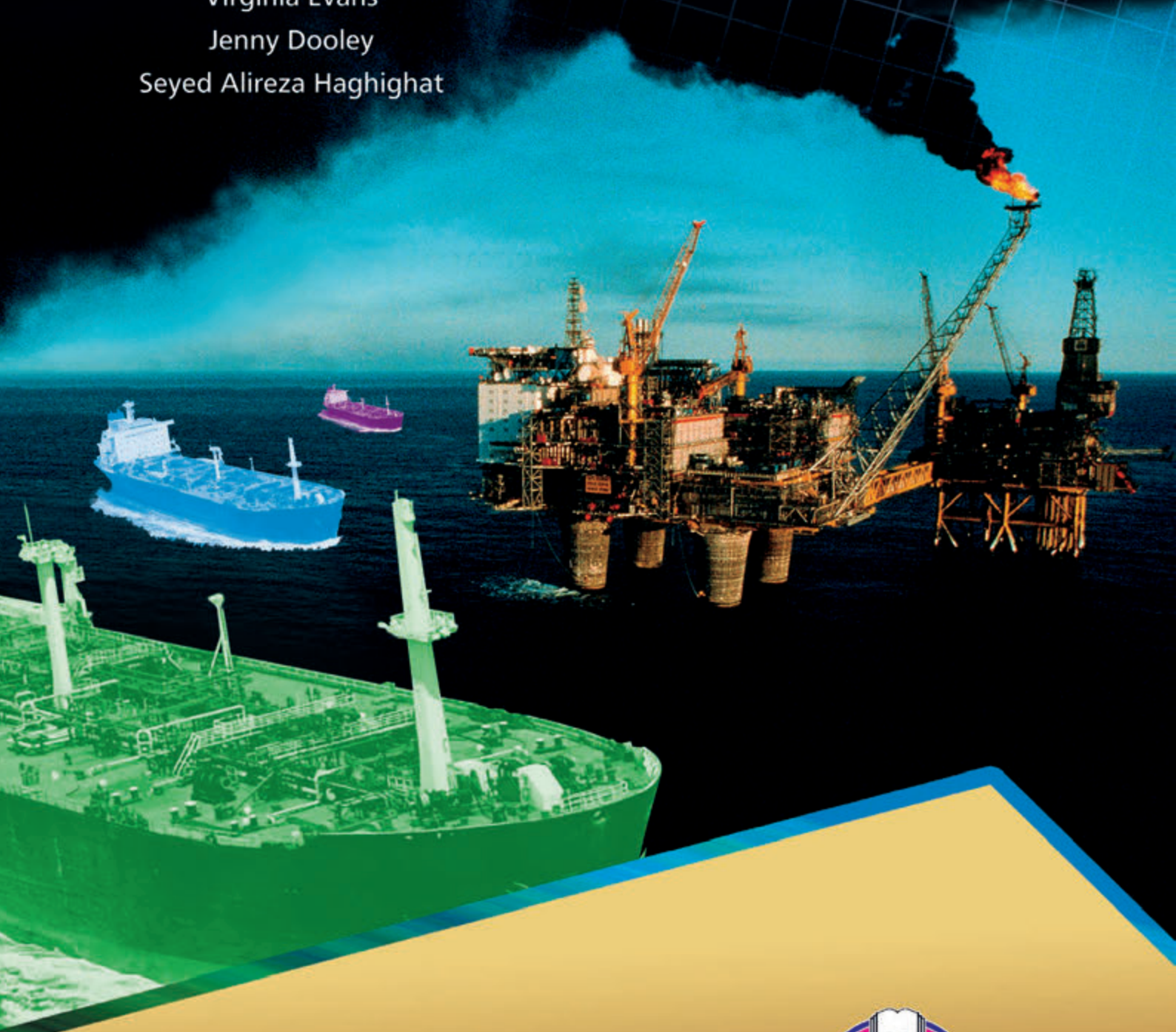
Pill: _____

Wildcat: _____

**CAREER
PATHS**

Petroleum II

Virginia Evans
Jenny Dooley
Seyed Alireza Haghigat



Express Publishing

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A petroleum **seal** is an important part of a reservoir. If seals are not present, petroleum traps are not created. Instead the petroleum migrates to the surface. Seals are made from rocks and minerals such as **limestone**, **halite**, and **mudrock**. These make good seals because they have small pores. The petroleum cannot flow through them easily. **Faults** can also be seals if they occur in the right kind of rock.

Capillary seals do not let petroleum pass through unless pressure in the reservoir causes leakage. There are two types of capillary seals. The types are based on how petroleum leakage occurs. **Membrane seals** leak when the pressure becomes too great. The pressure pushes petroleum through the rock pores. After the pressure level drops, the seal closes up again. **Hydraulic seals** leak when the pressure in the reservoir **accumulates**. This causes **fractures** in the seal. Once enough pressure is released, the fractures mend and the rock reseals.

Vocabulary

3 Place the words from the word bank under the correct heading.



halite hydraulic membrane
capillary mudrock limestone

| Seal types | Rock/Mineral types |
|------------|--------------------|
| _____ | _____ |
| _____ | _____ |
| _____ | _____ |

4 Match the words (1-4) with the definitions (A-D).

- 1 ___ fracture 3 ___ fault
- 2 ___ seal 4 ___ accumulate

- A a break that occurs in a rock
- B a divide in a rock formation caused by the earth's movement
- C a rock that keeps petroleum moving upward to the surface
- D to grow or increase over a period of time

Get ready!

1 Before you read the passage, talk about these questions.

- 1 What are some types of rock where seals form?
- 2 What does excessive pressure cause to happen to seal rock?

Reading

2 Read the webpage. Then, mark the following statements as true (T) or false (F).

- 1 ___ Seals need to be present for petroleum traps to form.
- 2 ___ Hydraulic seals leak when the seal fractures.
- 3 ___ Faults are a type of capillary seal.

- 5 🎧 Listen and read the webpage again. What causes a membrane seal to leak?

Listening

- 6 🎧 Listen to a conversation between a geologist and an oil field worker. Choose the correct answers.

- What is the purpose of the conversation?
 - to explain how faults work as seals
 - to describe how faults are created
 - to compare the structure of petroleum traps
 - to discuss the types of rocks that form seals
- What will the software show the woman?
 - where the fault is located
 - how much petroleum is in the trap
 - which kind of rock is creating the seal
 - how the petroleum is moving

- 7 🎧 Listen again and complete the conversation.

Oil Field Worker: Hey, Sasha. What are you doing out in the field?

Geologist: I'm conducting an analysis of the 1 _____.

Oil Field Worker: I just don't understand how a fault can be a seal. I mean, it's a 2 _____ in the ground.

Geologist: Well, faults are often in rocks that are already seals, 3 _____.

Oil Field Worker: So how does that help?

Geologist: If the rock is 4 _____, even with the fault, it remains a seal.

Oil Field Worker: Okay, that makes sense.

Geologist: But faults change the structure of the 5 _____.

Oil Field Worker: Is that why you're analyzing it?

Geologist: Yes, the computer software shows how the hydrocarbons are 6 _____ around the fault. It also shows the potential for the fault seal to leak.

Speaking

- 8 With a partner, act out the roles below based on Task 7. Then switch roles.

USE LANGUAGE SUCH AS:

I'm doing an analysis of ...
What kind of ...?
The computer software shows ...

Student A: You are an oil field worker. Talk to Student B about:

- what work is going on
- the seal type
- why he or she is analyzing the seal

Student B: You are a geologist. Talk to Student A about seals.

Writing

- 9 Use the webpage and the conversation from Task 8 to fill out the geologist's notes.



Field Notes

Location: _____

Type of seal: _____

Type of rock: _____

Reason for analysis: _____

Equipment used: _____

**CAREER
PATHS**

Civil Aviation

Virginia Evans
Jenny Dooley
Jacob Esparza



Express Publishing

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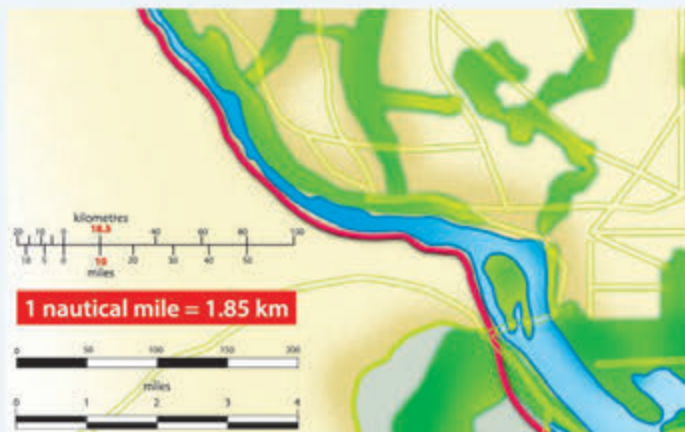
CHAPTER III

TYPES OF AIRSPEED



There are many types of **airspeed**. Remember that **indicated airspeed** is what your instrument reads. **Calibrated airspeed** is corrected for errors and is more accurate. **True airspeed** and **equivalent airspeed** are also different. True airspeed refers to the air around the aircraft. Equivalent airspeed refers to the air at sea level. **Groundspeed** is speed relative to the ground. Always know which type of airspeed you are using.

Be aware of different units of measurement. A **knot** measures speed. A **nautical mile** measures distance. Some places use **mph** (miles per hour) and others use **kph** (kilometers per hour). Always indicate your units of measurement.



Get ready!

1 Before you read the passage, talk about these questions.

- 1 What are some measures of speed?
- 2 What unit is air distance measured in?

Reading

2 Read the chapter on airspeed. Then, choose the correct answers.

- 1 What is the main purpose of this chapter?
 - A to explain how pilots measure airspeed
 - B to describe different types of airspeed
 - C to help a pilot calculate airspeed
 - D to compare different airspeed instruments
- 2 Which of the following is often inaccurate because it is not corrected for errors?
 - A calibrated airspeed
 - B groundspeed
 - C true airspeed
 - D indicated airspeed
- 3 Which of these is NOT explained in the chapter?
 - A different types of airspeed
 - B different instruments for reading airspeed
 - C the difference between indicated airspeed and calibrated airspeed
 - D different units used to measure airspeed

Vocabulary

3 Fill in the blanks with the words and phrases from the word bank.

word BANK

airspeed groundspeed knot
nautical mile true airspeed
equivalent airspeed

- 1 The pilot measured his aircraft's speed based on one nautical mile per hour, or one _____.
- 2 The pilot had to decide which type of _____ to measure.
- 3 1,852 meters is the same as one _____.
- 4 The co-pilot measured _____ to see how fast the plane was moving in relation to the ground.
- 5 Pilot Rogers used _____ to see how fast his craft would be flying at sea level.
- 6 Pilot Stevens measured _____ based on the air immediately around his aircraft.

4 Read the sentence pair. Choose where the words best fit the blanks.

1 indicated / calibrated

A _____ airspeed is usually accurate because it is corrected for errors.

B _____ airspeed is not always accurate because it is not corrected for errors.

2 mph / kph

A A measurement that is based on miles is _____.

B A measurement that uses kilometers is _____.

5 Listen and read the chapter on airspeed again. What does equivalent airspeed refer to?

Listening

6 Listen to a conversation between a student and an instructor. Mark the statements true (T) or false (F).

1 ___ The woman is confused about indicated and calibrated airspeeds.

2 ___ Indicated airspeed is more accurate than calibrated airspeed.

3 ___ Changes in air pressure create calibrated airspeed errors.

7 Listen again and complete the conversation.

Student: Mr. Henry, I have a few questions about 1 _____.

Instructor: Of course, Linda. What do you 2 _____?

Student: Indicated airspeed and calibrated airspeed 3 _____ a little.

Instructor: Well, do you know which one is more 4 _____?

Student: 5 _____ airspeed, because it's corrected for errors.

Instructor: 6 _____. So what are you confused about?



Speaking

8 With a partner, act out the roles below based on Task 7. Then switch roles.

USE LANGUAGE SUCH AS:

I have a few questions about ...

I'm confused about ...

Do you know ...

Student A: You are a student. Talk to Student B about:

- indicated airspeed
- calibrated airspeed
- why you feel confused

Student B: You are an instructor. Talk to Student A about errors that might occur in indicated airspeed.

Writing

9 Use the conversation from Task 8 to complete the exam questions.

Part III

Indicated VS calibrated airspeed

Indicated airspeed is: _____

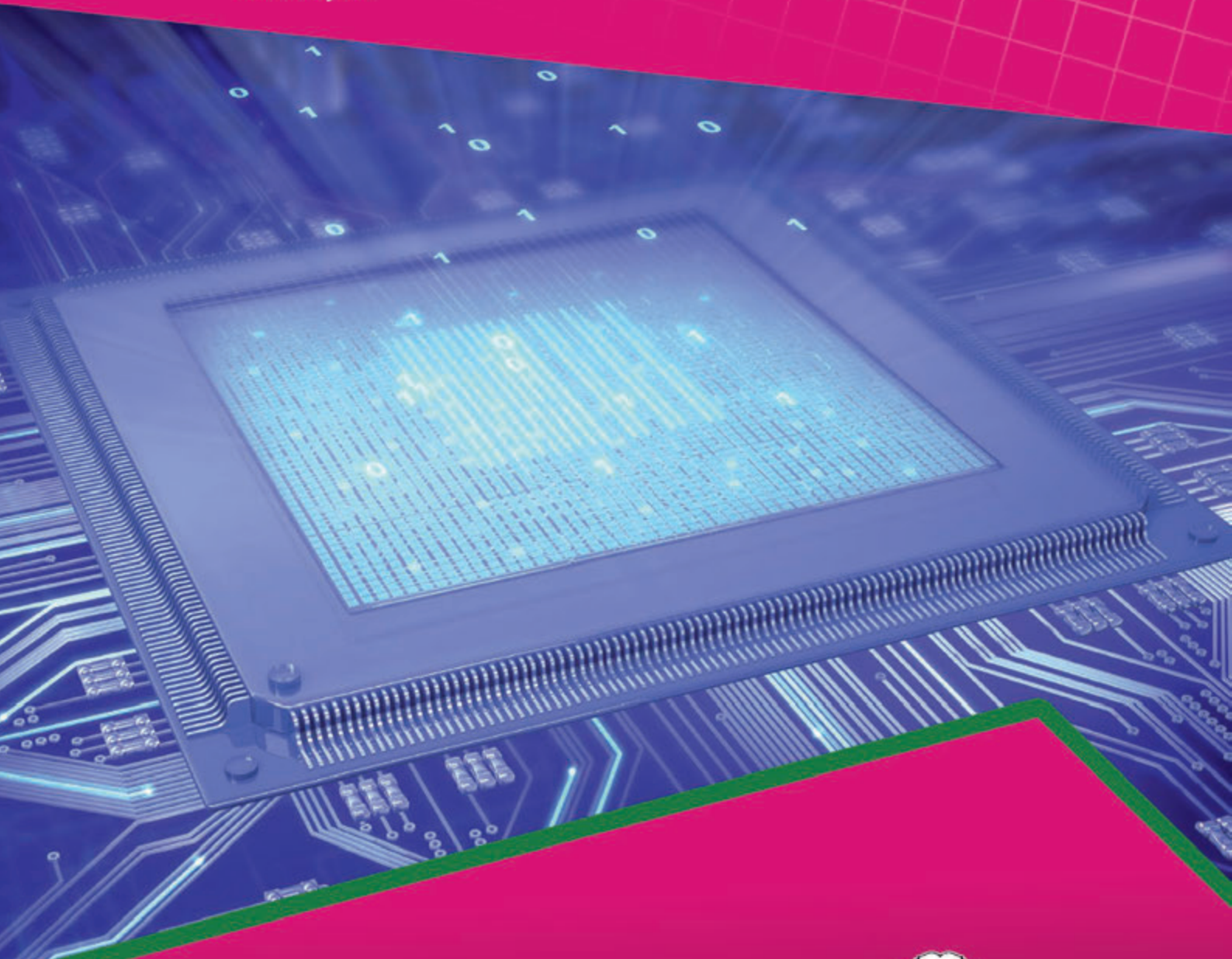
Calibrated airspeed is: _____

Which one is more accurate? _____

**CAREER
PATHS**

Electronics

Virginia Evans
Jenny Dooley
Carl Taylor



Express Publishing

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4 Replacing components

Removing components

In the past it was simple to remove components. Circuits had one layer. You just had to remove the solder and pull the lead through the hole in the board. Nowadays, boards are **multi-layered**, and component removal requires lots of skill and patience.

molten

clip

chop off

multi-layered

First, **double-check** that you have disconnected the power source. Then, **clear** the solder from the hole using a soldering iron and solder wick. Heat the solder. The **molten** solder will **flow** into the wick. Then you can pull the lead through. For large pieces, **suck** the solder away using a solder sucker. This may leave a **coating** of solder. Remove this using wick.

Some parts of the circuit are made of copper, which absorbs heat. **Thermal absorption** makes it hard to melt solder. The thick, **multi-**

layered boards also produce a **heat-sinking** effect. If you can't melt the solder, don't use a higher wattage iron. This can **deform** the boards and damage the circuit lands. It can also **delaminate** multi-layered circuit board lands and some components' pads. If you can't remove all the solder, **clip** the leads close to the components. Then you can solder the new component to the old component's leads. If you can't reach the leads, **chop off** the component close to its base.

Get ready!

1 Before you read the passage, talk about these questions.

- 1 What are some ways a circuit board can be damaged by heat?
- 2 What are two ways to disconnect leads or wires?

Reading

2 Read the article on removing components. Then, mark the following statements as true (T) or false (F).

- 1 ___ Solder wick is used to remove small pieces of solder.
- 2 ___ A higher wattage iron is good to use on multi-layered boards.
- 3 ___ Remove the solder before cutting the component leads.

Vocabulary

3 Match the words (1-8) with the definitions (A-H).

- | | |
|------------------|--------------------|
| 1 ___ flow | 5 ___ suck |
| 2 ___ deform | 6 ___ double-check |
| 3 ___ delaminate | 7 ___ clear |
| 4 ___ chop off | 8 ___ clip |

- A check something twice
B remove obstacles from a passage
C remove the coating
D cut through something small and thin
E remove using a vacuum
F move in liquid form
G change shape in a bad way
H cut and remove something

4 Write a word that is similar in meaning to the underlined part.

- 1 These days most circuit boards are made of several boards on top of each other.
m _ _ _ _ _ a _ _ r _ _
- 2 The fact that some parts take away the heat often makes it hard to melt solder.
_ h _ _ _ _ l _ b _ _ _ _ i _ _
- 3 The thickness of the boards creates a fast cooling effect. h _ _ _ _ _ n _ _ _ g
- 4 You can remove the lead once the solder is hot and in liquid form. _ _ l _ _ n
- 5 You don't need to add a thick layer of paint. A thin layer is enough. _ o _ _ _ n _

5 Listen and read the article again. How do you remove components from a multi-layered board?

Listening

6 Listen to a conversation between two technicians. Mark the following statements as true (T) or false (F).

- 1 ___ The woman is using a solder sucker.
- 2 ___ The man and woman decide to use a higher-wattage iron.
- 3 ___ The man suggests clipping the wires.

7 Listen again and complete the conversation.

- Tech 1: Can you help me? I can't remove this 1 _____.
- Tech 2: Sure. Removing pieces from 2 _____ is really difficult.
- Tech 1: I know. I can't 3 _____.
- Tech 2: What are you using?
- Tech 1: A soldering iron and wick. But the solder isn't melting, so it won't 4 _____ the wick.
- Tech 2: Maybe the iron isn't hot enough.
- Tech 1: The iron is hot, but the thermal absorption from the copper parts is producing a 5 _____.
- Tech 2: You could try using a higher wattage iron.
- Tech 1: No, I don't think we should do that. We could 6 _____.

Speaking

8 With a partner, act out the roles below based on Task 7. Then switch roles.

USE LANGUAGE SUCH AS:

I can't remove this ...

You could try ...

No, I don't think ...

Student A: You are a technician. Talk to Student B about:

- clearing the hole
- the equipment you are using
- other methods of removing the component

Student B: You are a technician. Talk to Student A about how to remove a component.

Writing

9 Use the article on removing components and the conversation from Task 8 to write a memo about the proper way to remove components. Include what type of equipment to use, what equipment shouldn't be used, and when to clip wires.

what equipment shouldn't be used

proper way to remove components

when to clip wires

what type of equipment to use

**CAREER
PATHS**

Electrician[⚡]

Virginia Evans

Jenny Dooley

Tres O'Dell



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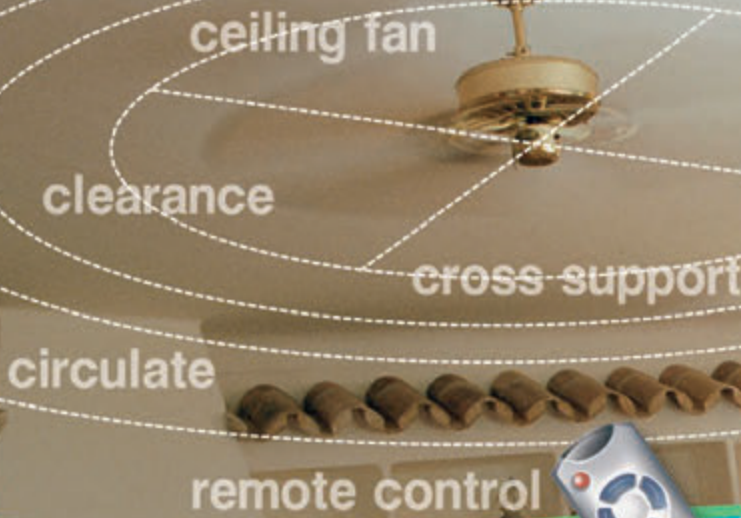
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7 Ceiling fans

Homebreeze Installation Guide

Model: Ceiling Fan UJ790



Important: Failure to **follow** these instructions during installation may present a safety hazard.

- 1 Before you begin, make sure you have enough space to install your **ceiling fan**. Without proper **clearance**, the fan may break or cause damage to surrounding walls and fixtures when operated.
- 2 Locate an appropriate **cross support**. We recommend mounting the fan **independently** from the included ceiling box so it stays **stable**. A fan towards the middle of the room will **circulate** the air most effectively.
- 3 Hang the fan with the included metal ceiling box (see page 4 for detailed instructions). Homebreeze Model UJ790 is a **swing-up** fan, so you will be able to wire the fan easily after you hang it.
- 4 Wire the fan, or have an electrician wire it for you (see page 6 for detailed instructions).
- 5 Swing the fan into place and secure the final screws in the ceiling box.
- 6 Test the fan to make sure that it does not **wobble**. The UJ790 is a **variable-speed** fan, so use the highest speed setting to perform this test. You will need two AA batteries to operate the **remote control**.

Get ready!

1 Before you read the passage, talk about these questions.

- 1 How does a ceiling fan work?
- 2 What should be considered when installing a ceiling fan?

Reading

2 Read the instruction manual on a ceiling fan. Then, complete the table using information from the manual.

| Step | Description |
|---------------------|-------------|
| Before Installation | _____ |
| Installation | _____ |
| After Installation | _____ |

Vocabulary

3 Write a word that is similar in meaning to the underlined part.

- 1 This light fixture should be installed without relying on other parts to the ceiling beam.
_ n d _ _ _ n d _ _ t l _
- 2 If the fan moves back and forth unsteadily, it is not installed correctly. w _ _ b l _ s
- 3 We need a fan that is capable of operating fast or slow to use in the wintertime.
_ _ r i _ b l _ _ _ p _ _ d
- 4 Before installation, the electrician located the solid beam in the ceiling.
c _ _ s s _ u _ _ o r _
- 5 Tighten the screws to keep each fixture securely in one place. _ t _ b _ e

- 4 Fill in the blanks with the correct words and phrases from the word bank.

Word BANK

circulate remote control swing-up
follow ceiling fan clearance

- Do you have enough _____ to install a fan here?
 - You must always _____ the instructions.
 - The bedroom lights are operated by _____.
 - The purpose of a fan is to _____ air.
 - This _____ fan is easy to wire after hanging.
 - The _____ makes the kitchen cooler.
- 5 Listen and read the instruction manual on a ceiling fan again. What is the final step after installation?

Listening

- 6 Listen to a conversation between two electricians. Mark the following statements as true (T) or false (F).
- ___ The wrong type of light fixture was installed.
 - ___ The woman's mistake caused a serious electrical malfunction.
 - ___ The woman forgot to test the fans after installation.
- 7 Listen again and complete the conversation.

Electrician 1: There seems to be something wrong with the way the 1 _____ are attached.

Electrician 2: Really? I tested the lights and they seem okay.

Electrician 1: Well, the wiring is fine, but 2 _____ when I turn on the fan at high speed.

Electrician 2: Oh, I see what you mean. The whole thing 3 _____.

Electrician 1: A fan wobbling like that won't 4 _____ properly. Or it could cause more serious problems, like electrical malfunction or damage to the fan.

Electrician 2: I know, I know. That was my fault. I should have 5 _____ right away to make sure they were stable.

Electrician 1: That's okay, Karen. Now that you've seen what happens, I'm sure you'll remember next time.

Electrician 2: I will. And I'll 6 _____ right away to tighten those light fixtures and make sure they're secure.

Speaking

- 8 With a partner, act out the roles below based on Task 7. Then switch roles.

USE LANGUAGE SUCH AS:

I tested the ...

The ... is fine, but look what happens ...

I should have ...

Student A: You are an electrician. Talk to Student B about:

- an error while installing fan
- possible consequences
- what action is needed

Student B: You are an electrician. Talk to Student A about a fan installation error.

Writing

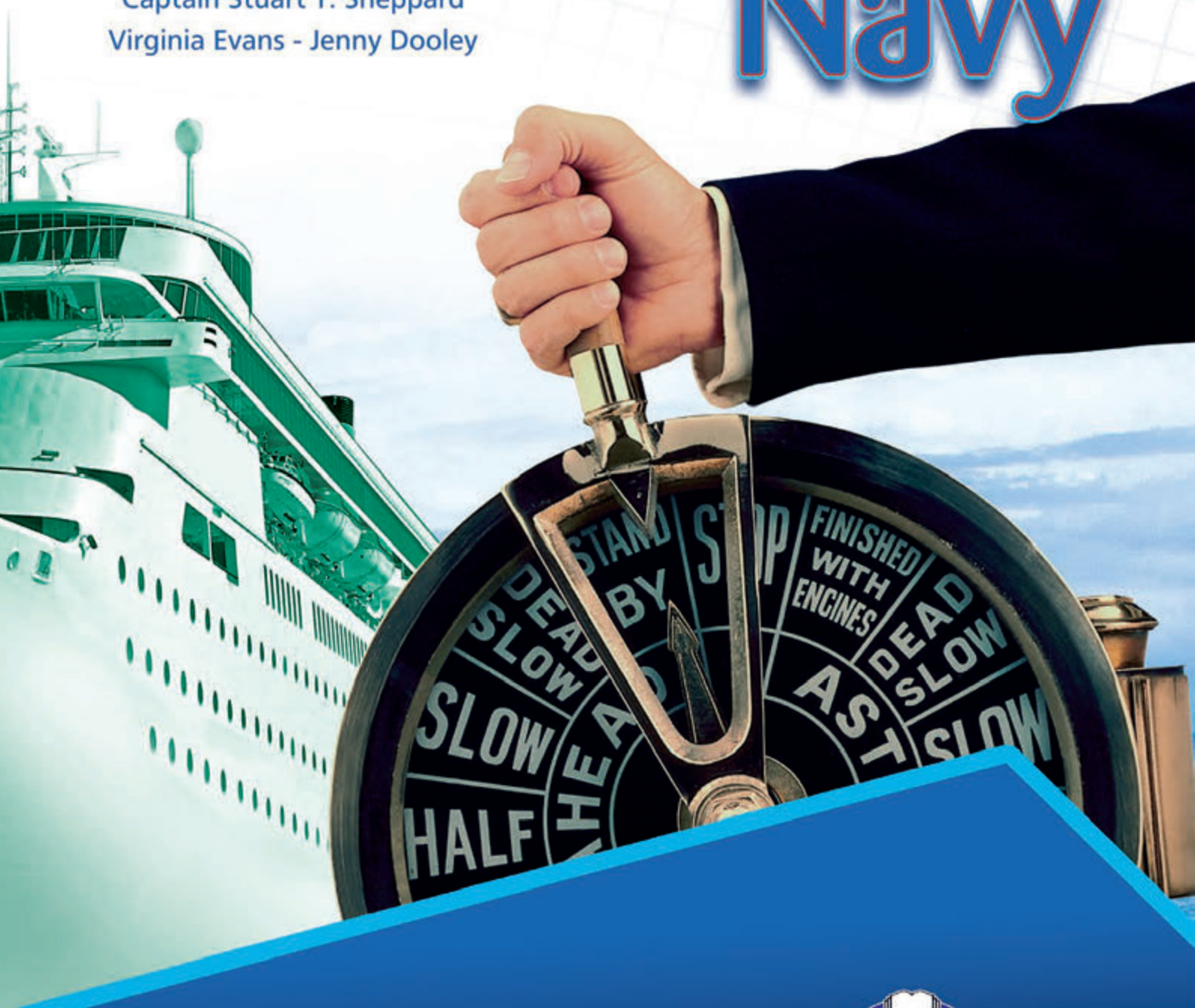
- 9 Use the conversation from Task 8 to write the electrician's work report. Write about:
- item installed
 - nature of installation error
 - why hazardous
 - steps taken to correct problem



**CAREER
PATHS**

Merchant Navy

Captain Stuart T. Sheppard
Virginia Evans - Jenny Dooley



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9 Nautical measurements



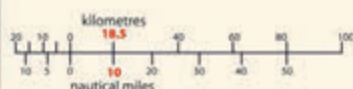
Seaman's Guide

As an up-and-coming seaman, you'll be flooded with new words. Some will seem odd, or difficult to remember. Given time, these terms will become second nature. Words for measurements show how different the language can be:

- **Distances** are measured in **nautical miles**, or 6,076 feet.
- Use **fathoms**, not **feet**, to measure **depths**. A fathom is equal to six feet, or 1.8 meters.
- The word **cable**, referring to measurement, equals 100 fathoms.
- To measure **speed** use **knots**, not miles or kilometers per hour.
- Some terms are mistaken for land-based measurements. For example, a **gross ton** doesn't refer to the **weight** of a ship's mass. It measures a vessel's internal volume.

1 nautical mile = 1.15 miles

1 nautical mile = 1.85 km



Get ready!

1 Before you read the passage, talk about these questions.

- 1 What are some challenges of learning nautical measurements?
- 2 How are measurements at sea different from those used on land?

Reading

2 Read the guide for new seamen on measurements. Then, choose the correct answers.

- 1 What is the article mainly about?
A what words are used for measurements at sea
B a comparison of the metric system and imperial system of measurement
C the origin of nautical words for measurement
D the importance of using nautical terms for distance
- 2 Which of the following is NOT a nautical measurement?
A knot C fathom
B gross ton D miles per hour
- 3 What can you infer about the term "gross ton"?
A It is no longer in use.
B It changes with higher speeds.
C It is often used incorrectly as a measure of weight.
D It is the most difficult measurement to calculate.

Vocabulary

3 Match the words (1-6) with the definitions (A-F).

- | | |
|--------------|---------------------|
| 1 ___ fathom | 4 ___ gross ton |
| 2 ___ knot | 5 ___ nautical mile |
| 3 ___ cable | 6 ___ foot |

- A a measurement equal to 100 fathoms
- B a measurement of depth
- C a distance measurement
- D a measurement of volume
- E a measure of speed
- F a measurement equal to 12 inches

4 Read the sentence pairs. Choose which word or phrase best fits each blank.

1 gross ton / depth

- A The _____ of the water is 6 fathoms.
 B A _____ measures volume, not weight.

2 distance / speed

- A The _____ to the next port is 150 nautical miles.
 B A ship's _____ is measured in knots.

5 Listen and read the guide for new seamen on measurements again. How is depth measured at sea?

Listening

6 Listen to a conversation about navigation. Mark the following statements as true (T) or false (F).

- ___ The ship is behind schedule.
- ___ The ship is traveling at twelve knots.
- ___ The ship will reach the port at 1500 hours.

7 Listen again and complete the conversation.

Officer: Roberts, 1 _____ finish your watch we should review our course.
Navigator: Sure thing. I've updated the ship's log already. It 2 _____ we're on schedule
Officer: We need to reach Newton by 1500 hours. What's our distance?
Navigator: We're about ninety nautical miles out 3 _____.
Officer: And 4 _____?
Navigator: We're traveling at fifteen knots.
Officer: By my calculations, it'll 5 _____ six hours to get there.
Navigator: I reckon the same thing. We'll be 6 _____.

Speaking

8 With a partner, act out the roles below based on Task 7. Then switch roles.

USE LANGUAGE SUCH AS:

How far ...
 We're traveling at ...
 It'll take about ...

Student A: You are a ship's captain. Talk to Student B about:

- when you must arrive at port
- the distance to port
- how fast you are traveling

Student B: You are a navigator. Talk to Student A about when you will reach your next port.

Writing

9 Use the guide for new seamen on measurements and the conversation from Task 8 to fill out the log entry.



Navigator's Log

Officer: _____
 Date: _____
 Time: _____
 Current Speed: _____
 Distance to Destination: _____
 Estimated Time to Arrival: _____



1 fathom = 6 feet = 1.8 meters

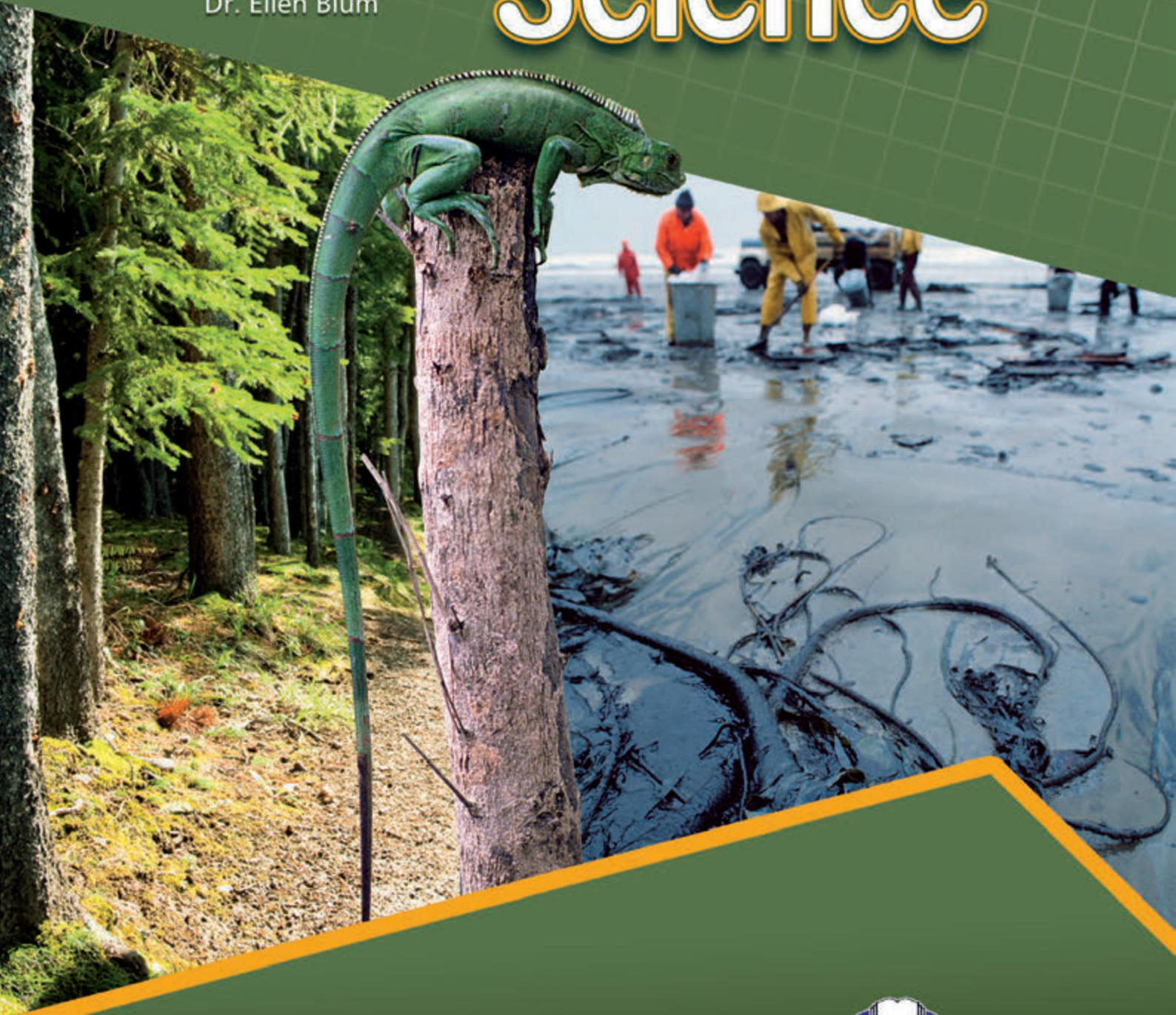


1 foot = 12 inches

**CAREER
PATHS**

Environmental Science

Virginia Evans
Jenny Dooley
Dr. Ellen Blum



Express Publishing

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Protecting our Oceans

Saltwater systems are a vital part of the Earth's biosphere. Don't let human waste destroy our **oceans**! Trash often piles up in **coastal zones**. It washes in and out with the tide in **intertidal zones**. Creatures that live in **estuaries** and **coastal wetlands** are especially affected. **Coral reefs** are also in danger. These active areas support about 25% of all ocean life. Trash from humans usually starts at the coasts. However, it is a threat to every **aquatic life zone**, from the surface to the **ocean bottom**. It floats out to **open sea** with the tide. There, the plastics and chemicals harm many varieties of aquatic life.

coral

ocean

human waste

estuary

coastal zone



Get ready!

1 Before you read the passage, talk about these questions.

- 1 In what area does a river meet the sea?
- 2 What area in an ocean is home to a wide variety of life?

Reading

2 Read the brochure. Then, mark the following statements as true (T) or false (F).

- 1 ___ Trash typically stays in intertidal zones.
- 2 ___ Coral reefs contain about half of all ocean life.
- 3 ___ Only the ocean bottom is unaffected by trash.

Vocabulary

3 Match the words (1-6) with the definitions (A-F).

- | | |
|-----------------|-------------------------|
| 1 ___ ocean | 4 ___ coral reef |
| 2 ___ open sea | 5 ___ intertidal zone |
| 3 ___ saltwater | 6 ___ aquatic life zone |

- A a large body of water
 B an underwater area with particular characteristics
 C an area of deep water away from the coast
 D bodies of water containing salt
 E an area made up of mineral structures
 F an area that is sometimes underwater and sometimes exposed

4 Read the sentences and choose the correct words.

- 1 The debris sank from the surface down to the **intertidal zone / ocean bottom**.
- 2 Most sea life lives in the warm waters of the **open sea / coastal zone**.
- 3 The **estuary / ocean** contains some saltwater and some freshwater.
- 4 Many trees grow in the **coastal wetlands / coral reef**.

- 5 Listen and read the brochure again. What kind of waste pollutes oceans?

Listening

- 6 Listen to a conversation between two scientists. Choose the correct answers.

- What is the main idea of the conversation?
 - which organisms live in a coral reef
 - differences between aquatic life zones
 - the condition of different ocean areas
 - methods for cleaning coastal zones
- What is the woman's good news?
 - The industrial waste was cleaned up.
 - The coral reef recovered.
 - The chemical spill was not harmful.
 - The crab population increased.

- 7 Listen again and complete the conversation.

- Scientist 1: How did your 1 _____ go?
- Scientist 2: Well, there's good news and bad news.
- Scientist 1: Uh oh. What was 2 _____ it?
- Scientist 2: We found a large patch of industrial waste. It's right above the northeastern 3 _____.
- Scientist 1: That's not good. Coral reefs develop slowly. It could take years to 4 _____.
- Scientist 2: I know. But on the 5 _____, the Seaborn Estuary is much cleaner.
- Scientist 1: Isn't that where they had that nasty chemical spill? A lot of crabs were killed, right?
- Scientist 2: That's right. Now the 6 _____ is almost back to normal.

Speaking

- 8 With a partner, act out the roles below based on Task 7. Then switch roles.

USE LANGUAGE SUCH AS:

How did ... go?

We found ...

On the other hand ...

Student A: You are a scientist. Talk to Student B about:

- his or her findings on a research trip
- a problem in an aquatic life zone
- an improvement in an aquatic life zone

Student B: You are a scientist. Talk to Student A about your findings on a research trip.

Writing

- 9 Use the brochure and the conversation from Task 8 to fill out the research report.

Summary of

Aquatic Research Expedition

I found a problem in _____

The problem was _____

I found an improvement in _____

The improvement was _____

coral
reef

**CAREER
PATHS**

Sports

Virginia Evans
Jenny Dooley
Alan Graham



Express Publishing

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1 Tennis: Rules



Beginner's Guide to Tennis

Tennis is a popular game played around the world. However, it may be confusing to newcomers. Here are the basics of the game to help get you started.

Tennis is played on a **tennis court**. It can be played on three kind of surfaces: clay, grass, and hard court. The court is divided by a **net** into two sections. Each section is further divided by the **service line**. Between this line and the net is the **service box**.

Tennis players require only a **tennis racket** and **tennis balls** to play. Players hit the ball back and forth across the court over the net. They score points when their opponents hit the ball out of bounds or against the net or when the ball bounces twice in the opponent's court.

Play begins with a **serve**. The serving player stands behind the **baseline**. The player must hit the ball diagonally to land it inside his opponent's service area. If the server makes two **faults** or a **net service**, their opponent scores a point.

Players begin at **love**, or zero points. The first point is counted as **fifteen**, the second **thirty**, and the third **forty**. At **deuce**, or tie, the server must score the last two points to win. A game ends when the server scores his final **game point** or their opponent the **break point**. A **set** is usually won by the first player to win six games.

Get ready!

1 Before you read the passage, talk about these questions.

- 1 What are some areas of a tennis court?
- 2 What equipment is used when playing tennis?

Reading

2 Read the tennis guide. Then, mark the following statements as true (T) or false (F).

- 1 Players serve from behind the service line.
- 2 A serving player gets one chance to get the ball over the net.
- 3 "Love" indicates that a player has not scored any points.

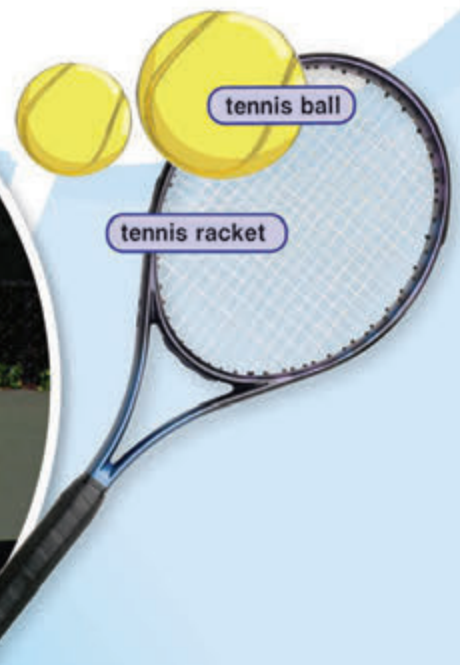
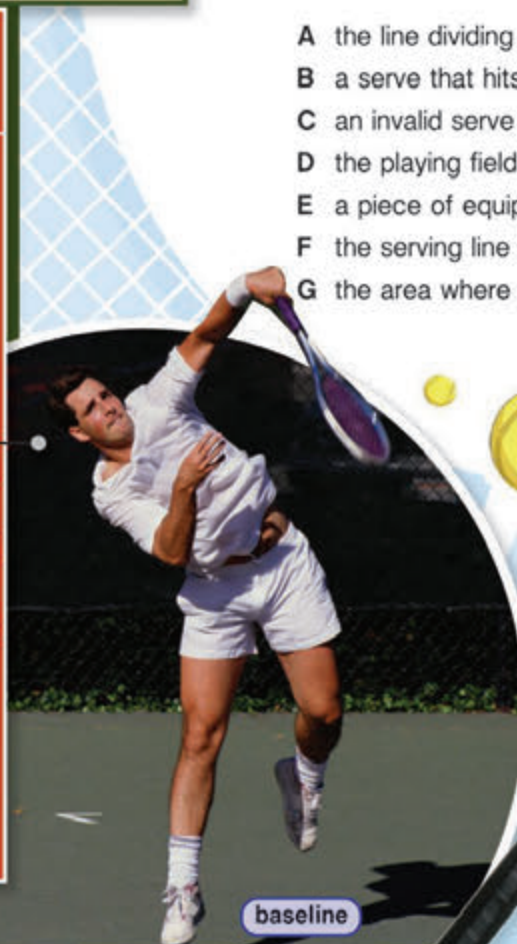
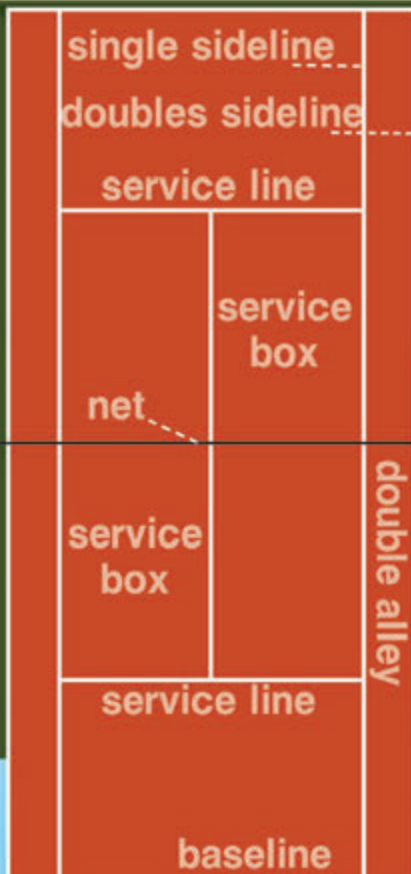
Vocabulary

3 Match the words (1-7) with the definitions (A-G).

- | | |
|---|--|
| 1 <input type="checkbox"/> tennis court | 5 <input type="checkbox"/> fault |
| 2 <input type="checkbox"/> baseline | 6 <input type="checkbox"/> tennis racket |
| 3 <input type="checkbox"/> service box | 7 <input type="checkbox"/> service line |
| 4 <input type="checkbox"/> net service | |

- A the line dividing a player's side of the court
- B a serve that hits the net
- C an invalid serve in tennis
- D the playing field in tennis
- E a piece of equipment used to hit a tennis ball
- F the serving line on a tennis court
- G the area where a player must land a serve

tennis.court



- 4 Fill in the blanks with the correct words and phrases from the word bank.

Word BANK

set love game point deuce
forty break point fifteen

- 1 When the player scored at _____ he won the game.
 - 2 With a score of _____, the player had not yet made a point.
 - 3 A daring play won the game for the server's opponent at _____.
 - 4 With scores of _____, both players had made one point.
 - 5 At _____, the server must score two points to win.
 - 6 Both players were very tired after playing a _____ of tennis.
 - 7 After scoring three points, the player's score was _____.
- 5 Listen and read the tennis guide again. Why is deuce a special score in tennis?

Listening

- 6 Listen to a conversation between two spectators. Mark the following statements as true (T) or false (F).
- 1 ___ The man doesn't understand how tennis scoring works.
 - 2 ___ The player has only scored once.
 - 3 ___ The woman compares the deuce score to a tie-breaker situation.

- 7 Listen again and complete the conversation.

Spectator 1: In tennis, points are worth 1 _____.

Spectator 2: So, one point is scored as 2 _____?

Spectator 1: That's right. Players start at zero, which is called 3 _____. The first point is still only one point, but it's scored as fifteen.

Spectator 2: What comes after that?

Spectator 1: The 4 _____ is scored thirty, and the third point is scored forty.

Spectator 2: That's the 5 _____?

Spectator 1: One more point is needed to win, unless the 6 _____ forty-fourty. They call that deuce.

Speaking

- 8 With a partner, act out the roles below based on Task 7. Then switch roles.

USE LANGUAGE SUCH AS:

I'm confused about ...

It's split ...

What don't you ...

Student A: You are a tennis fan. Talk to Student B about:

- the tennis court
- how it's divided
- where to serve from

Student B: You are new to the game of tennis. Talk to Student A about how a tennis court is arranged.

Writing

- 9 Use the tennis guide and the conversation from Task 8 to write an article on the structure of a tennis court and serving. Include: the net, the service box, and the baseline.



COMMAND

& CONTROL

CAREER
PATHS



John Taylor - Jeff Zeter



Express Publishing

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6 The Soldier's Life: Radio Basics

Radios are vital military tools. They allow soldiers to **stay in contact** during combat and other operations.

Most radios are made to **hop frequencies**. This prevents the enemy from listening to the full conversation.

The **SINCGARS (man-pack)** and **AN/PRC-148 (handheld)** are common military radios.

The man-pack can be worn as a **backpack**. This portable type of radio handles both voice and data **transmissions**.

The handheld is the most widely used radio. It permits easy **two-way** contact.

Most modern radios use **rechargeable lithium-ion batteries**.



Using a SINCGARS man-pack radio in the field

Comprehension

1 Read, listen and fill in the blanks to complete the sentences.

- 1 Radios hop frequencies in order to
- 2 There are two basic types of radios: the and the
- 3 The SINCGARS radio can handle not only but also voice transmissions.
- 4 The handheld is most useful for
- 5 Today's portable handheld radios are powered by

2 a) Read again and choose the correct answers.

- 1 What can be inferred about the SINCGARS radio?
A It cannot hop frequencies automatically.
B It is mostly used for data transmissions.
C It has a better battery than the AN/PRC-148.
D Soldiers wear it like a backpack.

- 2 According to the text, what is true of the AN/PRC-148 handheld radio?
A It can receive but not send data messages.
B It is too large to fit into a soldier's pocket.
C It uses a rechargeable battery.
D It has a longer range than man-pack radios.


b) In pairs, talk about how many types of radios there are and how they can be used.

Vocabulary

3 Choose the correct definition for each word.

- 1 **man-pack**
A a radio worn on the back
B a message sent through a radio
C a type of radio transmission
- 2 **two-way**
A moving in two directions
B consisting of two parts
C using voice and data
- 3 **stay in contact**
A to replace batteries
B to have communication
C to turn off a radio

4 Study the table below.

| RADIO VOICE PROCEDURE  | |
|---|---|
| WORDS | MEANING |
| Affirmative | Yes. |
| Roger | I understand / I received your transmission. |
| Negative | No. |
| Wilco | I will comply; I will do what you have asked. |
| Standby | Wait. |
| Over | I'm finished speaking and waiting for a reply. |
| Out | I'm finished speaking and don't expect a reply. |
| Go ahead | Please send your next transmission. |
| Say again | Repeat the last transmission. |
| You're breaking up | I cannot hear you / your voice. |

5 Complete the conversation with appropriate words or phrases from the word bank.

negative **wilco** **say again**
over **out**



- D77: Echo one-three, I didn't hear your last transmission. Please (1)
- E13: I repeat, please advise. Is air reconnaissance available for this area? (2)
- D77: (3) We do not have air recon at this time. Please wait for further instructions.
- E13: (4) I will await your next transmission. (5)

6 Complete the word or short phrase that is similar in meaning to the underlined part.

- I understood your last transmission. I am moving toward the objective now.
 _ _ g _ _
- Yes. All units have reported back to base.
 _ f _ _ _ _ t _ _
- You're going to have to repeat the last transmission, soldier. I couldn't understand you.
 _ o _ ' _ _ _ e _ _ _ _ _ p

- This is Delta Actual. Please proceed with your transmission.
 _ o a _ _ _ _
- I'm verifying that information for you now. Please wait until my next transmission.
 S _ _ _ _ _ y

Listening

-  Listen to a radio conversation between a soldier in the field and his commander. Write down any key vocabulary (in bold in the reading passage) that you hear.
-  Listen again to the conversation. Then answer the questions.

1 Why does the man contact the woman on the radio?

.....

2 What does the woman order the unit to do?

.....

3 Why does the man ask the woman to "say again?"

.....

Speaking

- In pairs, act out short radio exchanges using the procedure words in Ex. 4.



AIR FORCE

**CAREER
PATHS**



Gregory L. Gross Col USAF (Ret) - Jeff Zeter



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5 On Base: Rank Structure



The Chief Master Sergeant of the Air Force (left) talks to a Senior Airman

A recruit may hope to become a **general** someday, but he or she will start at the lowest **rank**. All enlisted airmen begin duty in the **airmen** tier. Eventually, they can work their way up to the **Noncommissioned Officer Tier**. Such a move requires more leadership and responsibility. Exceptional airmen can reach the highest level for enlisted airmen, the **Senior Noncommissioned Officer Tier**.

On the other hand, **officers** are commissioned, based on their education, experience and qualifications. They begin as **company grade officers**, who are either **lieutenants** or **captains**. Like airmen, officers also have potential to increase their rank. Officers who show the most promise become **field grade officers**, such as majors and colonels. A very select few become **flag officers**, or generals.

Comprehension

1 Read, listen, and mark the statements as true (T) or false (F). Correct the false statements.

- 1 ___ Airmen start in the Noncommissioned Officer Tier.
.....
- 2 ___ A captain is a senior noncommissioned officer.
.....
.....
- 3 ___ Company grade officers are lower in rank than field grade officers.
.....

Vocabulary

2 List the types of rank, from highest to lowest.

Noncommissioned Officers
Senior Noncommissioned Officers
Company Grade Officer Flag Officers
Field Grade Officers Enlisted Airmen

- 1
- 2
- 3
- 4
- 5
- 6

INSIGNIA: Enlisted Ranks

Airmen

(No insignia)

Airman Basic



Airman



Airman First Class

Noncommissioned Officers



Senior Airman



Staff Sergeant



Technical Sergeant

Senior Noncommissioned Officers



Master Sergeant



Senior Master Sergeant



Chief Master Sergeant



Command Chief Master Sergeant



Chief Master Sergeant of the Air Force

INSIGNIA: Officer Ranks

Company grade Officers



Second Lieutenant



First Lieutenant



Captain

Field grade Officers



Major



Lieutenant Colonel



Colonel

General Officers



Brigadier General



Major General



Lieutenant General



General

3 Label each insignia.



1



2



3



4



5

Listening

4 Listen to a conversation between an officer and an airman, and answer the questions.

1 What is the airman's new rank?

.....

2 Where will the airman transfer to?

.....

3 Why must the airman transfer?

.....

.....

Speaking

5 You are speaking to new recruits. Explain the difference between NCOs and commissioned officers.

POLICE

CAREER
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John Taylor - Jenny Dooley



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1 Equipment: Basic equipment



badge



duty belt

multi-tool

handcuffs

bulletproof vest

Get ready!

1 Before you read the passage, talk about these questions.

- 1 What are some tools police use?
- 2 What equipment does a police officer typically carry in your country?

Reading

2 Read the page from a police equipment company's website. Then, choose the correct answers.

- 1 What is the purpose of the webpage?
 - A to list products available
 - B to show a completed order
 - C to state required equipment
 - D to describe a business
- 2 Which item is NOT sold with all its needed parts?
 - A zip tie
 - B multi-tool
 - C handcuffs
 - D flashlight
- 3 What is true of the bulletproof vest?
 - A It is the most expensive item.
 - B It includes plates in all models.
 - C It is available in multiple sizes.
 - D It can only be ordered by phone.

Strong Arm Police Equipment Suppliers

Current Inventory

| Item Code | Description | Cost |
|-----------|---|------------|
| P141 | Badge: standard five point star. Engraving extra. | \$8 |
| P198 | Boots: black, leather, reinforced toe and sole. Avail. sizes M 7-13 W 4-12. | \$110 |
| P509 | Bulletproof vest: adjustable size, fits over uniform. Optional reinforced front/back plates extra. Call for details. | \$400 |
| P040 | Duty belt: adjustable, holds up to ten items. | \$70 |
| P588 | Flashlight: lightweight, 20 cm length, uses C batteries (not included). | \$15 |
| P422 | Gloves: black leather. Avail sizes S, M, L, XL. | \$20 |
| P188 | Handcuffs: stainless steel. | \$30 |
| P454-P499 | Holster: all leather. Locking belt clip. Specify gun make and model when ordering. | \$45-\$200 |
| P098 | Multi-tool: 9 useful tools in one! Case included. | \$65 |
| P905 | Radio: five channels. Rechargeable. | \$100 |
| P112 | Restraint (pair): nylon web. 12 cm. | \$8 |
| P113 | Zip tie (pack of 12): white. | \$6 |

Click [here](#) to place an order.

Strong Arm is committed to complete customer satisfaction. Call 1-888-499-5999 or [email](#) us for assistance at any time.

Vocabulary

3 Match the words (1-5) with the definitions (A-E).

- 1 __ zip tie
- 2 __ duty belt
- 3 __ multi-tool
- 4 __ radio
- 5 __ boot

- A a device with many uses
- B a strap that holds an officer's tools
- C a device used for communication
- D equipment that protects the foot
- E an item that binds suspects' hands



zip tie

4 Choose the correct word for each blank.

- 1 badge / handcuffs
 A The criminal couldn't move because of the _____.
 B Robert wears his _____ on his uniform.
- 2 gloves / bulletproof vests
 A These _____ protect officers' hands.
 B Modern _____ can stop most bullets.
- 3 flashlight / restraints
 A The _____ prevented him from moving.
 B Use your _____ if it is too dark outside.

5 Listen and read the website again. Where does a police officer keep his or her pistol?

Listening

6 Listen to a conversation between two officers. Mark the statements as true (T) or false (F).

- 1 ___ Handcuffs cost much more than zip ties.
 2 ___ The woman thinks zip ties break easily.
 3 ___ Using a zip tie requires both hands.

7 Listen again and complete the conversation.

Officer 1: You don't think they're our best option? They're so lightweight you can carry a dozen at a time.

Officer 2: True, that's their main advantage.

Officer 1: That and they're cheap. We can buy fifty or sixty for the price of one pair of handcuffs.

Officer 2: Sure, that's something else they have 1 _____.

Officer 1: And they're 2 _____. I could go on and on. So, what are their downsides then?

Officer 2: The biggest downside is that they're difficult to put on correctly when you only have 3 _____.

Officer 1: I see your point.

Officer 2: I can slap 4 _____ on a suspect with one hand and have my other one free. I feel a lot safer and more in control that way.

Officer 1: True, that's 5 _____.

Officer 2: And 6 _____, that outweighs all their negatives.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

That's its main advantage.
That's something they have going for them.
One downside is ...

Student A: You are a police officer. Talk to Student B about a piece of equipment. Talk about:

- its most useful feature
- other advantages
- comparison with other equipment

Student B: You are a police officer. Talk to Student A about police equipment.

Writing

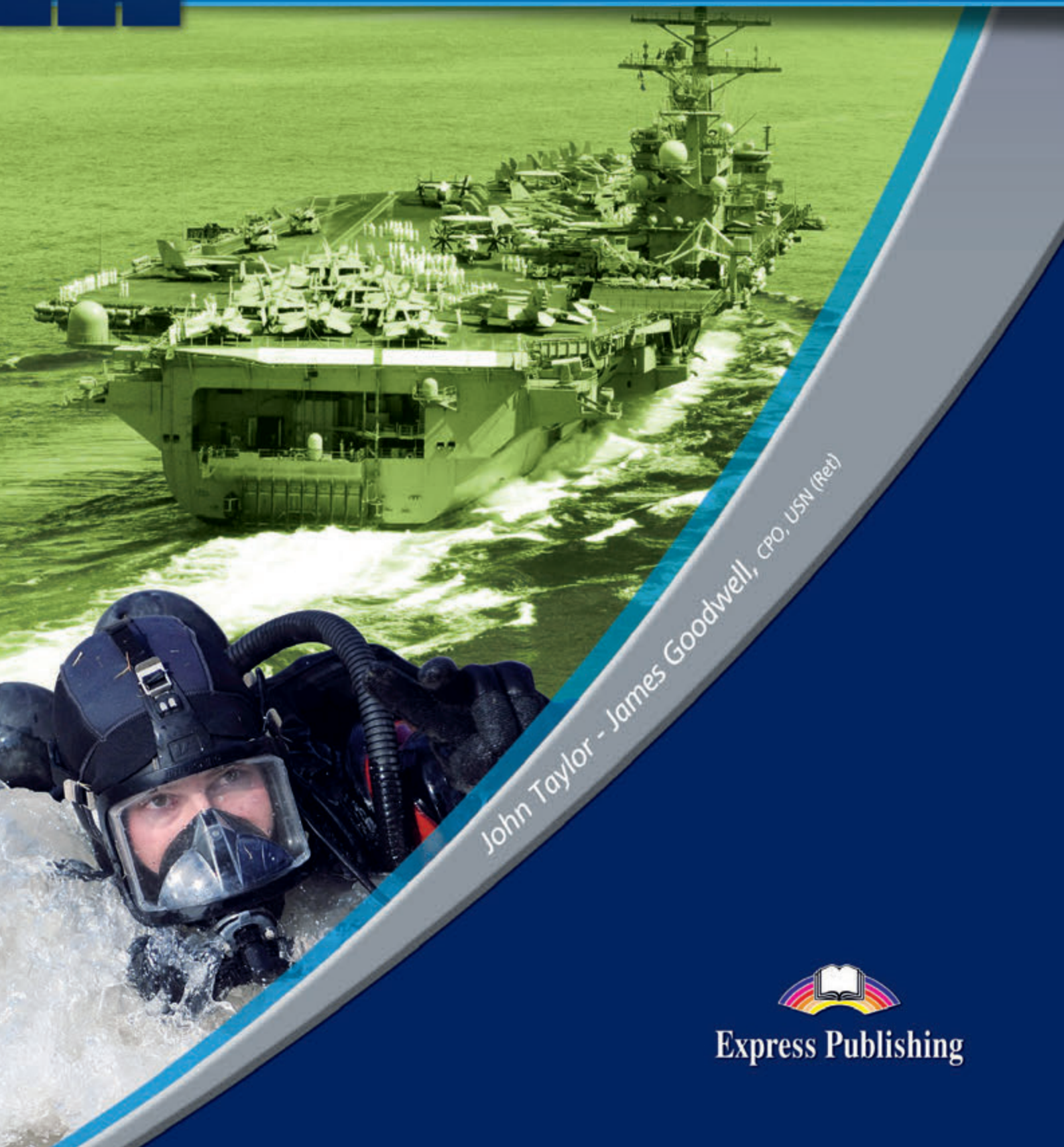
9 Use the website and the conversation from Task 8 to fill out the customer feedback form.

Strong Arm Police Equipment Suppliers Customer Feedback Form

Item ordered: _____
 Item Strengths: _____
 Item Weaknesses: _____
 Would you recommend this item to a friend? Y N
 Why or why not? _____

NAVY

CAREER
PATHS



John Taylor - James Goodwell, CPO, USN (Ret)



Express Publishing

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7 Aircraft: Support Aircraft



A NATO E-3A Airborne Warning and Control System (AWACS) aircraft flies over the aircraft carrier USS George Washington



An MH-60S Sea Hawk helicopter during a vertical replenishment



A C-2A Greyhound launches from the aircraft carrier USS Ronald Reagan

Naval aircraft do not just engage enemy planes and attack air- or ground-based targets. They also perform a variety of support functions that are equally important to naval missions.

Some aircraft undertake **patrol** missions over long distances, looking for enemy ships or submarines. **Unmanned aerial vehicles (UAVs)** can perform these functions without putting pilots at risk. Others provide **Command and Control**. Flying high above the battle group, these aircraft use powerful radar systems to provide **airborne early warning** of approaching enemies. They also maintain communication among the fleet. Yet some aircraft prevent the enemy from communicating. Such aircraft **jam** enemy signals in **electronic warfare** operations.

Aircraft also provide several **transport** functions. Land- and carrier-based **helicopters** provide **vertical replenishment (VERTREP)** operations. The C-2 transport can carry 10,000 pounds of cargo, yet still land on a carrier. The best-known transport plane, the C-130, moves everything from personnel and cargo to tanks and helicopters. Specially modified units also provide **aeromedical evacuation**.

Search and rescue (SAR) missions are another function of support aircraft, though they are only undertaken by rotary wing aircraft. When someone is lost at sea, when a plane crashes, or when a ship sinks, these aircraft launch to save those left behind.

Comprehension

1 Read, listen, and mark the statements as true (T) or false (F).

- 1 ___ Patrol missions can be completed without pilots on board.
- 2 ___ The C-2 can be outfitted to serve as an airborne medical station.
- 3 ___ Airplanes and helicopters are both involved in SAR operations.

Vocabulary

2 Match the definitions to the correct words.

- | | |
|-----------------|------------------|
| 1 ___ transport | 4 ___ helicopter |
| 2 ___ patrol | 5 ___ VERTREP |
| 3 ___ jam | |

- A an aircraft that is lifted and kept in the air by rotating wings
- B to block an electronic signal from being transmitted
- C the transfer of cargo to ships using helicopters
- D to conduct an operation in an area for observation and maintaining order
- E to carry something from one place to another

3 Complete the sentences with the terms below.

Word BANK

*aeromedical evacuation electronic warfare
command and control search and rescue
airborne early warning UAV*

- 1 The system failed to notify the fleet of the approaching attack.
- 2 The Navy used a(n) to scout the combat zone.
- 3 Both ships and aircraft were used in the operation to find the missing sailors.
- 4 A(n) operation was ordered to take the injured personnel to a hospital.
- 5 Officers on the aircraft were able to view the entire battlefield.
- 6 The Navy uses sophisticated jamming systems to conduct

4 Read the passage again. Why are helicopters used for SAR and VERTREP missions?

Listening

5 Listen to a conversation between an officer and a pilot, and answer the questions.

- 1 What type of operation did the pilot just complete?
 - A patrol
 - B search and rescue
 - C VERTREP
 - D command and control
- 2 What will the man most likely do next?
 - A Refuel a helicopter.
 - B Resupply a destroyer.
 - C Attend a mission briefing.
 - D Go to the maintenance department.

Speaking

6 Listen again, and then act out the dialogue from Task 5 with a partner. Then switch roles.

USE LANGUAGE SUCH AS:

*What is the status ... ?
We're putting you up again.
Just make sure ...*

Student A: You are an officer. Talk to Student B about:

- results of a SAR mission
- an upcoming mission
- how to prepare

Student B: You are a pilot. Talk to Student A about support missions.

Writing

7 Use the conversation in Task 5 to describe the support functions of naval aircraft. Include: transport, patrol, and rescue operations.

**CAREER
PATHS**



Flight Attendant

Virginia Evans
Jenny Dooley
Lori Coocen



Express Publishing

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Get ready!

1 Before you read the passage, talk about these questions.

- 1 Why are announcements before landing important for flight attendants to make?
- 2 What are some important things that passengers may be asked to do as they approach the airport for landing?



Good morning ladies and gentlemen. We hope you have enjoyed your flight on Chambliss Airways. We will be landing at JFK International Airport shortly. Before we do, we need to take care of a few items. Please return to your seats and **collect** your belongings. Flight attendants are coming around to collect any **trash**. **Pass** any items you wish to **discard** to them. Did you **recline** your seat? Please, return your **seatback** to its original **upright** position. Also, **lower** any **armrests**. **Tray tables** should be **locked** into place. Also, we ask that you **turn off** and stow any electronics. Carry-ons go in the overhead bins or under the seat. Finally, please **buckle** your seatbelt and prepare to land. We hope you enjoyed your flight from Athens to New York. We look forward to flying with you again soon.



Reading

2 Read the announcement script. Then, mark the following statements as true (T) or false (F).

- 1 ___ Passengers are asked to recline their seats before landing.
- 2 ___ The armrests need to be lowered before landing.
- 3 ___ Carry-on items can be placed in overhead bins.

Vocabulary

3 Match the words or phrases (1-9) with the definitions (A-I).

- | | |
|----------------|------------------|
| 1 ___ seatback | 6 ___ tray table |
| 2 ___ collect | 7 ___ buckle |
| 3 ___ pass | 8 ___ discard |
| 4 ___ recline | 9 ___ lower |
| 5 ___ turn off | |

- A to gather objects together
 B to hand an object to someone else
 C to cause something to incline backwards
 D the part of the chair your back rests on
 E a small piece of plastic used to eat or work on that is used on an airplane
 F to power down electronic items
 G to throw something away
 H to attach two sides of something together in order to hold something
 I to move something closer to the ground





4 Read the sentences and choose the correct words or phrases.

- 1 The flight attendant collected our **seatback/ trash** before we landed.
- 2 The **tray tables/armrests** make the airplane seats more comfortable.
- 3 It is important for your seat to be **upright/ buckled** before we take off.
- 4 I **locked/discarded** my tray table in the correct position.

5 Listen and read the announcement again. Where can carry-ons and electronics be placed before landing?

Listening

6 Listen to a conversation between a flight attendant and a passenger. Mark the following statements as true (T) or false (F).

- 1 The man asks the woman to recline her seat.
- 2 The man says that the woman can leave her phone on.
- 3 The woman says she will put her carry-on item under her seat.

7 Listen again and complete the conversation.

Flight Attendant: We are getting ready to land. Do you have any **1** _____ ?

Passenger: No, I **2** _____ already.

Flight Attendant: Then please **3** _____ into position.

Passenger: Okay, sure. Sorry about that.

Flight Attendant: You will also have to return your seat back to an **4** _____ .

Passenger: Do I need to **5** _____ my phone?

Flight Attendant: Please. Electronics sometimes interfere with our radios. Can I put **6** _____ - _____ in the overhead bin?

Passenger: No, thank you. I will just put it under the seat.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

We are getting ready to ...

You will also ...

Can I put ...?

Student A: You are a flight attendant. Talk to Student B about:

- discarding trash
- changing their seat position for landing
- stowing his or her carry-on item

Student B: You are a passenger. Talk to Student A about what you need to do to prepare for landing.

Writing

9 Use the conversation from Task 8 to fill in a checklist of flight attendant duties before landing.



Chambliss Airways

Checklist Before Landing

- 1 Trash: _____
- 2 Tray tables: _____
- 3 Seat position: _____
- 4 Electronics: _____
- 5 Carry-on items: _____

**CAREER
PATHS**

Virginia Evans
Jenny Dooley
Kenneth Rodgers



ENVIRONMENTAL ENGINEERING



Express Publishing

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10 Waste Management 1



open dump

WASTE MANAGEMENT

The Good and the Bad

Waste management is critical for human and environmental health. Without proper waste management, people would just throw garbage in **open dumps**. Fortunately, many places have better ways to handle waste. However, even the best facilities face challenges.

Liquid **hazardous** waste is often stored in **surface impoundments**. However, these can leak and contaminate groundwater. Fumes may also add to air pollution. A better solution is **deep-well disposal**. This method is permanent and environmentally sound if managed properly.

Solid waste landfills are sites that handle municipal and **industrial solid waste**. A **composite liner** is placed under the landfill. The intention is to prevent water pollution. However, environmental agencies suggest that this is only a temporary barrier. On top of the liners is a series of **cells** which have **daily cover** over them. **Lifts** lead to multiple layers of cells.

Solid waste landfills are extremely common. But they are not without problems. Many of them have reached or are close to **disposal capacity**. As the population grows, this will become a bigger problem. In addition, landfills release flammable **toxic** gases as waste **decomposes**. **Methane recovery** can be accomplished with a series of pipes that suck the gas out. Meanwhile, underground **carbon storage** can prevent CO₂ from entering the atmosphere.

Get ready!

1 Before you read the passage, talk about these questions.

- 1 Why is waste management important?
- 2 How do solid waste landfills handle waste?

Reading

2 Read the magazine article. Then, choose the correct answers.

- 1 What is the purpose of the article?
 - A to compare types of waste management facilities
 - B to describe waste management problems and solutions
 - C to explain how solid waste landfills are created
 - D to highlight the harmful effects of open dumps
- 2 What can be inferred about solid waste landfills?
 - A They can be difficult to operate.
 - B They often have hazardous liquids.
 - C They may eventually pollute water.
 - D They have too many cell layers.
- 3 Which of the following is NOT a problem with waste facilities?
 - A They are quickly filling up.
 - B They emit hazardous gases.
 - C They are not compacted well.
 - D They can catch fire.

Vocabulary

3 Match the words or phrases (1-8) with the definitions (A-H).

- | | |
|----------------------|---------------------------|
| 1 ___ toxic | 5 ___ composite liner |
| 2 ___ cell | 6 ___ methane recovery |
| 3 ___ lift | 7 ___ disposal capacity |
| 4 ___ carbon storage | 8 ___ surface impoundment |
-
- A the collection of a gas so that it can be used for another purpose
 - B an area of compacted waste
 - C a hole that holds liquid waste
 - D a synthetic material placed over compacted soil
 - E poisonous
 - F the largest amount of waste a facility can hold
 - G a layer put over cells when they are full
 - H the capture and storage of CO₂ so that it doesn't pollute the atmosphere



4 Choose the sentence that uses the underlined part correctly.

- 1 Injecting liquid into underground rock is one way to get rid of waste permanently.
_ _ _ p _ _ e _ _ _ s p _ _ a _
- 2 The manufacturing process creates a lot of garbage from industrial facilities.
_ _ d u _ _ _ a _ s _ _ _ d _ a _ _ _
- 3 Many poor countries have lots of large, unregulated areas where people throw trash.
_ _ e _ _ u _ _ s
- 4 Methane is an extremely dangerous greenhouse gas.
_ _ _ a r _ _ _ s
- 5 Some items in landfills may never break down.
_ _ c _ _ _ o _ _
- 6 The layer of soil put over cells prevents the wind from blowing waste around.
d _ _ _ _ o _ _ r
- 7 Most of the city's waste goes to a(n) place where waste is dumped and buried.
_ o _ _ _ _ s _ _ l _ _ _ _ l _

5 Listen and read the magazine article again. What are some ways to manage hazardous liquid waste?

Listening

6 Listen to a conversation between an environmental engineer and a city planner. Mark the following statements as true (T) or false (F).

- 1 ___ The city's solid waste landfill already has a methane recovery system.
- 2 ___ The landfill's daily covers keep garbage in place and control odors.
- 3 ___ The engineer will make plans for a carbon storage system.

7 Listen again and complete the conversation.

Engineer: Okay. I think that a system for 1 _____ would be very beneficial.

City Planner: I was under the 2 _____ that we had a system to do that.

Engineer: No, not 3 _____.

City Planner: I can't believe that. What safety features do we have in place?

Engineer: There's an impermeable 4 _____ to protect the groundwater supply.

City Planner: Okay, but that's pretty standard with solid waste landfills. What else do we have?

Engineer: There's a system of applying 5 _____.

City Planner: I'm not 6 _____ with that.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

*I was under the impression that ...
Yes, that's right./No, not at this time.
Let's get going on ...*

Student A: You are an environmental engineer. Talk to Student B about:

- what waste disposal methods your city currently uses
- what safety features the facilities have

Student B: You are a city planner. Talk to Student A about your city's waste management methods.

Writing

9 Use the magazine article and the conversation from Task 8 to complete an informational flyer about your city's waste management programs. Include: the methods the city uses, their benefits, and their safety features.

**CAREER
PATHS**

Management I

Virginia Evans - Jenny Dooley
Henry Brown



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11 Pay and Benefits

Get ready!

1 Before you read the passage, talk about these questions.

- 1 What are some benefits given to employees?
- 2 Why do businesses offer benefits?



health insurance



retirement plan

Benefits Package Entry-Level Positions

Pay and benefits for entry-level employees increase with time at the company. Entry-level employees receive **minimum wage** for one year. After that time, employees earn a **salary** of \$40,000 a year.

New employees are not eligible for **overtime** without managerial approval. Overtime benefits begin after six months. **Health insurance** and **dental** benefits begin after three months. Employees earn **vacation time** after one year with the company. **Stock options** are also offered after one year of employment.

Harrison Manufacturing offers several **retirement plans**. After six months, employees may enroll in the plan of their choice.



vacation time



overtime



dental



pay

HARRISON MANUFACTURING - Employee Handbook - Section 3:

Reading

2 Read the benefits package from the handbook. Then, choose the correct answer.

- 1 What is the article mainly about?
A the benefit of retirement plans
B benefits for certain employees
C how stock options work
D an overview of health insurance
- 2 Which of the following must be approved by a supervisor?
A overtime C health insurance
B dental D retirement plans
- 3 Which benefit begins after one year?
A dental C overtime
B salary D stock options

Vocabulary

3 Match the words or phrases (1-8) with the definitions (A-H).

- | | |
|-------------------|----------------------|
| 1 — vacation time | 5 — retirement plans |
| 2 — salary | 6 — health insurance |
| 3 — stock options | 7 — benefits |
| 4 — overtime | 8 — minimum wage |

- A the services provided by employers in addition to being paid
 B a policy to set money aside from one's paycheck to be spent when employment ends
 C the paid time away from work that is allotted to employees
 D the time worked and paid beyond an employee's normal hours
 E the insurance against paying for the cost of medical care
 F a benefit given to employees to purchase company stocks at a discounted price
 G the lowest pay that employers can legally pay employees
 H a set amount of money made during the year as determined by the employer that is paid in installments

4 Read the sentence pairs. Choose which word or phrase best fits each blank.

1 **benefits / salary**

- A Fortunately, my job has really good _____ to cover medical expenses.
 B Susan's yearly _____ is too low for her to purchase a house.

2 **dental / health insurance**

- A This job includes _____, so you won't have to worry about your teeth.
 B Most jobs offer _____ to cover medical expenses.

5 Listen and read the benefits package from the handbook again. When does Harrison Manufacturing begin offering benefits to its employees?

Listening

6 Listen to a conversation between an HR representative and an employee. Mark the following statements as true (T) or false (F).

- 1 ___ The woman wants to talk about overtime benefits.
 2 ___ The man is not eligible for dental yet.
 3 ___ The man is very interested in the retirement plan.

7 Listen again and complete the conversation.

Representative: Hi, Mike. You've been here now for six months. So let's discuss some 1 _____ you may want.
Employee: What are my options?
Representative: Let's see, you're now eligible for 2 _____ and our retirement plan.
Employee: That's great. What's the 3 _____ like?
Representative: Well, it's pretty simple. The company withholds money from your paycheck. That money is 4 _____ for your retirement.
Employee: That 5 _____ enough.
Representative: Is that something you'd like to sign up for?
Employee: Oh, yes. I 6 _____ do.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

Let's discuss ...
What's the ... like?
I definitely ...

Student A: You are an HR representative. Talk to Student B about:

- benefit options
- benefit details
- interest in benefits

Student B: You are a new employee. Talk to Student A about what benefits interest you.

Writing

9 Use the conversation from Task 8 and the handbook to complete the questionnaire about benefits.

Benefits Questionnaire

Which benefit(s) interest you the most?

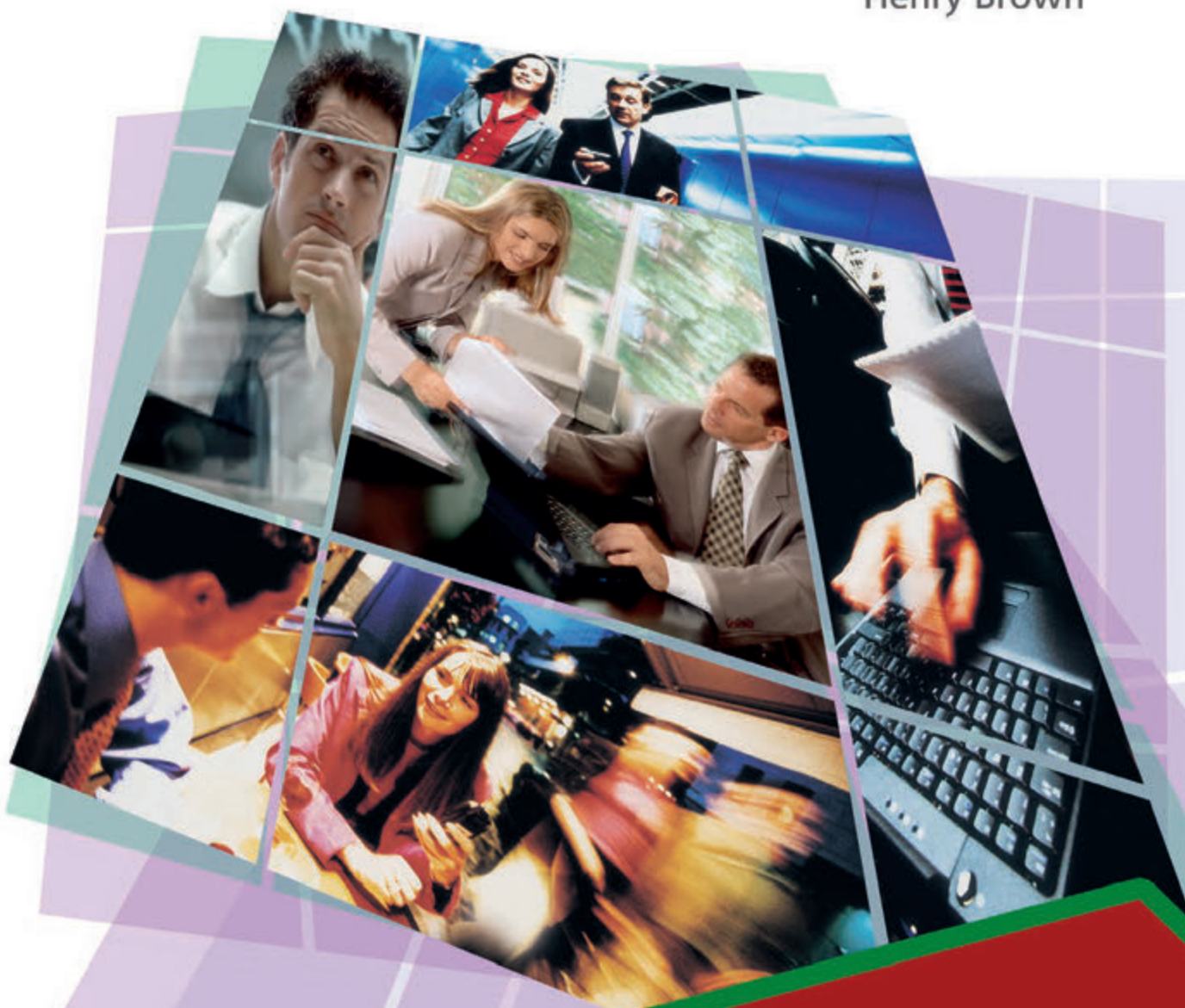
Would you choose to sign up for a retirement plan? Explain.

Which benefit(s) do you think are unnecessary?

**CAREER
PATHS**

Management II

Virginia Evans - Jenny Dooley
Henry Brown



Express Publishing

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Ready to trade in your old phone?
Get a Satellite XK50 Smartphone!

TechWare just **developed** its latest state-of-the-art device. It **features** a lightning-fast processor and a sleek design. It's lightweight, but it doesn't sacrifice **durability**! And it has tons of great **qualities**, including:

- An 8 megapixel camera
- Voice and face recognition
- A crystal-clear touch screen with **dimensions** of 5.5 inches by 2.75 inches
- 64GB of storage – take your pictures, music, and videos with you wherever you go!

With the Satellite XK50, you'll get all these **upgrades** and more!

TechWare **releases** its newest creation on July 1.

Global Wireless will **distribute** this **make** and **model** exclusively.

To order yours, visit www.globalwireless.com.

Get ready!

1 Before you read the passage, talk about these questions.

- 1 What types of information can you find in a product description?
- 2 What general qualities do people look for in products like electronic devices?

Reading

2 Read the advertisement. Then, complete the table.

| Product Information | Details |
|---------------------|---------|
| Make/Model | 1 _____ |
| Dimensions/Storage | 2 _____ |
| How to get it | 3 _____ |

upgrade

1990-2000-2013

GLOBAL WIRELESS
distributes exclusively
Satelite XK50
Smartphone!

Developed by TechWare

TechWare

model

make

distribute

Vocabulary

3 Match the words (1-5) with the definitions (A-E).

- 1 ___ make 4 ___ quality
2 ___ model 5 ___ develop
3 ___ feature

- A to possess a certain characteristic as an important element
B the brand or company that manufactures an item
C to create something new or make an existing thing better
D a characteristic of something
E a specific item that is distinctive from other items of the same type

4 Read the sentences and choose the correct word.

- 1 The company is **releasing/featuring** its newest video game next month.
2 Only one company can **develop/distribute** the product to customers.
3 The picture frame's **qualities/dimensions** are five inches by seven inches.
4 This truck is known for its **durability/model**. It will run for years and years.
5 The new phone has several **makes/upgrades** that make it easier to use.

5 Listen and read the advertisement again. What are the Satellite XK50's key features?

Listening

6 Listen to a conversation between two managers. Mark the following statements as true (T) or false (F).

- 1 ___ The Alloy 760 has had problems with durability.
2 ___ It will take about three months to fix the design problems.
3 ___ The woman expects to distribute the phone in December.

7 Listen again and complete the conversation.

- Manager 1: So we're getting ready to 1 _____ the Alloy 760.
Manager 2: Yeah, when do you think it'll 2 _____?
Manager 1: Well, we're having some design problems. 3 _____ has been an issue.
Manager 2: 4 _____ will it take to fix it?
Manager 1: I think it'll be about a 5 _____.
Manager 2: Okay. But the other 6 _____ are working fine?
Manager 1: Yeah, they are.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

*When do you think the ... will be ready?
It'll be about ... / It will be ready around ...
How long will it take to ...?*

Student A: You are a manager at a cell phone manufacturer. Talk to Student B about:

- problems with an upcoming smartphone
- upgrades on the new phone
- when it will be ready

Student B: You are another manager at a cell phone manufacturer. Talk to Student A about the progress of a new smartphone.

Writing

9 Use the conversation from Task 8 to fill out the advertisement.

Ready for a new phone?

Get the _____!

This state-of-the-art smartphone features _____.
It has _____, _____, and _____.

This new _____.

Order one today!

**CAREER
PATHS**

Call Centers

Virginia Evans
Jenny Dooley
Sarah Miranda



Express Publishing

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Get ready!

1 Before you read the passage, talk about these questions.

- 1 How can a customer service representative help with customer issues?
- 2 What other kind of work might a customer service representative have to do?

Reading

2 Read the webpage. Then, choose the correct answers.

- 1 What is the main idea of the webpage?
 - A the customer service provided by a company
 - B the skills required to become a customer service representative
 - C a list of available jobs in customer service
 - D the problems customer service representatives face
- 2 Which of the following is NOT offered on the webpage?
 - A record of accounts
 - B call back service from tech support
 - C telephone support
 - D in-store consultations
- 3 According to the webpage, what is the purpose of keeping account records?
 - A to help customers transfer data between computers
 - B to remind customers when to update their systems
 - C to keep representatives informed about previous service requests
 - D to aid customers who lose their receipts

Tech Unlimited
COMPUTER DEALERS

HOME

ABOUT US

SERVICES

CONTACT

research
decision
support
inquiry

customer
service



All of our purchases come with live **customer service** over the phone. If you experience any **issues** with your computer, let one of our representatives help you. They can **guide** you through a number of solutions for a variety of problems. Our representatives offer telephone **support** for most issues.

For more advanced problems, our tech support team will **research** the situation. In most cases, tech support will call back with a solution within three business days. We also keep a record of your **account**. That way, representatives know exactly which hardware you are calling about. They can also view your previous **requests** for **service**.

We understand that our representatives are the **link** between our company and customers. We believe our customers deserve excellent service. We are committed to addressing **inquiries** quickly and professionally.

Make the smart **decision** and buy your new computer from Tech Unlimited Computer Dealers.

We **process** all orders in just two business days.

Vocabulary

3 Match the words or phrases (1-8) with the definitions (A-H).

- | | |
|----------------------|--------------|
| 1 _ account | 5 _ research |
| 2 _ customer service | 6 _ request |
| 3 _ issue | 7 _ service |
| 4 _ link | 8 _ support |

- A something that someone asks for
- B a record of a customer's orders and information
- C a problem or concern encountered by a customer
- D to investigate something thoroughly
- E a company's department that gives customers help and guidance
- F advice or instructions that someone provides
- G a connection between two people or things
- H work performed for a business purpose

4 Read the sentences and choose the correct words or phrases.

- 1 A representative's responsibility is to **request/ process** orders correctly.
- 2 A customer with a question can make an **issue/ inquiry** with customer service representatives.
- 3 Customers often ask representatives for help making **accounts/decisions** about products.
- 4 Tech support representatives have to **research/ guide** customers through solutions.

5 Listen and read the webpage again. What kind of support does the company offer?

Listening

6 Listen to a conversation between a representative and a customer. Mark the following statements as true (T) or false (F).

- 1 ___ The woman reached the wrong department.
- 2 ___ The woman would like to cancel an order.
- 3 ___ The man adjusted the woman's order.

7 Listen again and complete the conversation.

Represent.: Hello. You've 1 _____ . How can I assist you today?

Customer: I have a couple questions. I'm not sure if I called the 2 _____ .

Represent.: That's not a problem. What can I do for you?

Customer: Well, I have a question about my account. I also want to place 3 _____ .

Represent.: Don't worry, I can help you with both of those. Let's start with the question about 4 _____ .

Customer: Okay. When I look at my order history online, I don't see my latest order. I'm worried that it didn't get 5 _____ .

Represent.: 6 _____ did you place the order?

Customer: I placed the order yesterday.

Speaking

8 With a partner, act out the roles below based on Task 7. Then switch roles.

USE LANGUAGE SUCH AS:

How can I help you?
I have a question about ...
Don't worry ...

Student A: You are a representative. Talk to Student B about:

- problems he or she is having with an account
- what you can do to help
- your recommendation

Student B: You are a customer. Talk to Student A about questions you have about your account.

Writing

9 Use the webpage and the conversation from Task 8 to fill out the notes on a customer's account.

Account #: 004995-234

Customer: _____

Reason for call: _____

Resolution: _____

CAREER
PATHS

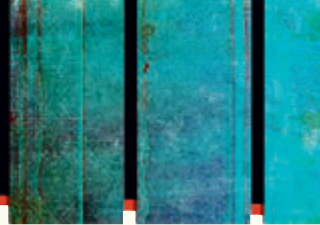
Art & Design

Virginia Evans - Jenny Dooley - Henrietta P. Rogers



Express Publishing

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HOME

SUPPORT

SERVICES

CONTACT



Photography is harder than it looks.

Good **photographers** need practice. Here are some tips for dealing with common problems.

Problem: I'm trying to **shoot** a moving subject. The photographs are blurry and I can't see the details.

Solution: Your **exposure** is probably taking too long. Try a camera with a shorter **shutter speed**.

Problem: My subject isn't moving, but my photographs are blurry.

Solution: You might need to **focus** your **lens**. Make small adjustments until the image looks right. If that doesn't work, try using a **tripod**. It will help you keep the **camera** steady.

Problem: My night-time pictures are too dark.

Solution: To take a good night-time picture, you need light. Use a camera with a **flash**.

Problem: My local camera store closed down. Where can I turn my **negatives** into photographs?

Solution: Learn to **develop** your own **film**. This is more satisfying than taking it to a store, anyway.

Vocabulary

3 Write a word that is similar in meaning to the underlined part.

- The photographer needs to take a picture of the new city hall for the newspaper article. s _ _ _ t
- The material that stores images was damaged, so the photographs were ruined. _ _ _ m
- If the piece of curved glass is dirty, the pictures will not look right. _ e _ _
- The new device for taking pictures is much more advanced than the old one. _ a _ e _ a
- The artist studied the act of creating pictures with a camera. _ _ o t _ g _ _ _ h _
- The magazine hired a new person who takes pictures. p _ _ _ _ g _ a _ _ e _
- The proper process of allowing light into a camera helps a photographer achieve the desired effect. e _ _ o s _ _ _

Get ready!

1 Before you read the passage, talk about these questions.

- What are pictures stored on?
- What is necessary when taking a photograph in dark conditions?

Reading

2 Read the webpage. Then, mark the following statements as true (T) or false (F).

- The webpage offers multiple solutions for blurry pictures.
- The webpage advises that short shutter speeds cause dark pictures.
- The webpage recommends getting film developed at a store.





4 Read the sentence pairs. Choose which word or phrase best fits each blank.

- 1 focused / developed**
 A The photographer _____ the camera before he took the photograph.
 B The photographer _____ the film into photographs.
- 2 shutter speed / negative**
 A The _____ shows the image with the colors reversed.
 B Adjust the _____ so the picture won't be so blurry.
- 3 flash / tripod**
 A To keep the camera steady, use a _____.
 B To add more light to the subject, use a _____.

5 Listen and read the webpage again. How can a photographer take a clear picture of a moving subject?

Listening

6 Listen to a conversation between a photographer and an assistant. Choose the correct answers.

- 1** What is the purpose of the conversation?
 A to identify an error while developing negatives
 B to choose an easier photography subject
 C to determine why a batch of photographs came out badly
 D to explain the need for a flash on the next project
- 2** What does the woman plan to do next on the next project?
 A shoot another type of subject
 B use the camera's flash
 C develop the negatives differently
 D use a faster shutter speed

7 Listen again and complete the conversation.

Photographer: Let me take a look. Yeah, they're **1** _____.

Assistant: What do you think happened? Did I **2** _____ incorrectly?

Photographer: No, I don't think it was your fault. I bet I just used a **3** _____.

Assistant: That could make the pictures blurry?

Photographer: Oh, definitely. Especially since my **4** _____.

Assistant: I see. Would it help to **5** _____ next time?

Photographer: Not in **6** _____. There was plenty of sunlight out there.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

They didn't come out ...
I bet I just ...
Would it help to ...?

Student A: You are a photographer. Talk to Student B about:

- a problem with a batch of photographs
- the cause of the problem
- what you will do differently next time

Student B: You are an assistant. Talk to Student A about a problem with a batch of photographs.

Writing

9 Use the conversation from Task 8 and the webpage to complete the project reshoot request.



Northwestern Images
Request to Reshoot Form

What was the problem with the original photographs?

How will you avoid this problem again?



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Cloud Computing

Cloud computing

is a new approach to software. It offers benefits to businesses and customers alike. In a cloud system, resources and products are hosted in a central location. Businesses either host the system on their own network servers or hire a company to manage the resources. Customers can access the product from anywhere over a standard Internet connection.

Typically customers who access these **public clouds** interact only with a system's **front end** software. They no longer deal with the more complex **back end** implementation. Because many customers use a single service, the costs are shared between them. Customers pay a **metered fee**, which covers only what they use. As a result, cloud computing is usually less expensive for users.

Businesses may also want to implement internal cloud systems. They can establish **private clouds** exclusively for their employees. **Community clouds**, which share resources with other users, are another option. They may even build **hybrid cloud** systems to permit complex interactions across group boundaries.

Businesses will conclude that their investment in cloud computing is a good one. Cloud services are designed to be flexible and long lasting. The **scalability** and **elasticity** of cloud computing makes it the right choice for large or small businesses.

Reading

2 Read the magazine article. Then, choose the correct answers.

- What is the main idea of the article?
 - to describe the benefits of cloud computing
 - to explain how cloud computing developed
 - to compare cloud computing providers
 - to recommend a cloud computing service
- Why are customer costs lower with cloud computing?
 - Networks are faster.
 - Cloud services are shared.
 - There is less maintenance.
 - Cloud systems are more flexible.
- Which is NOT a benefit of cloud computing?
 - scalability
 - metered fees
 - simple modification
 - guaranteed access

Get ready!

1 Before you read the passage, talk about these questions.

- What kind of cloud computer services can you name? What makes them cloud services?
- What is the difference between a document created on the Internet and one on your computer?

Vocabulary

3 Match the words or phrases (1-6) with the definitions (A-F).

- 1 ___ public cloud 4 ___ back end
2 ___ community cloud 5 ___ elasticity
3 ___ cloud computing 6 ___ hybrid cloud

- A a shared computer service
B a cloud accessible to customers
C a cloud for many kinds of groups
D the part of a program not seen by users
E the ability to be easily modified
F a cloud shared by many businesses

4 Choose the sentence that uses the underlined part correctly.

- 1 A A metered fee charges only for the services used.
B Community clouds are the least-accessible cloud type.
- 2 A If a system has scalability, it can be altered for large or small users.
B A software program with elasticity cannot be adapted to different systems.
- 3 A People use cloud computing so they can focus on back end implementation.
B A front end program is what users access.
- 4 A A private cloud is designed for only one group.
B Programs in the public cloud are designed for employees of a specific company.

5 Listen and read the magazine article again. Where are cloud computing systems hosted?

Listening

6 Listen to a conversation between an IT employee and a co-worker. Mark the following statements as true (T) or false (F).

- 1 ___ Cloud software must be downloaded.
2 ___ The woman's e-mail program is on her computer.
3 ___ The man prefers web-based e-mail.

7 Listen again and complete the conversation.

- IT Employee:** Well, let's use a 1 _____. You know the new e-mail service we have?
- Co-worker:** Sure. It's all 2 _____ - _____ now.
- IT Employee:** That's right. Previously, everyone had software 3 _____ on their computer.
- Co-worker:** Yes, I had to 4 _____ and download my e-mails every morning.
- IT Employee:** Exactly – but now the software is 5 _____.
- Co-worker:** Right. I can just use my Internet browser. I don't have to 6 _____.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

- Can you help me out with ...?*
How is it different from ...?
You can access your ...

Student A: You are an office employee. Talk to Student B about:

- cloud computing software
- how it differs from desktop software
- where cloud data is saved

Student B: You are an IT specialist. Explain cloud computing to your colleague.

Writing

9 Use the magazine article and the conversation from Task 8 to complete a report about cloud computing. Include: the difference between a public cloud and a private cloud, metered fees, and front end programs.

**CAREER
PATHS**

TAXI Drivers

Virginia Evans - Jenny Dooley
Daniel Wilson



Express Publishing

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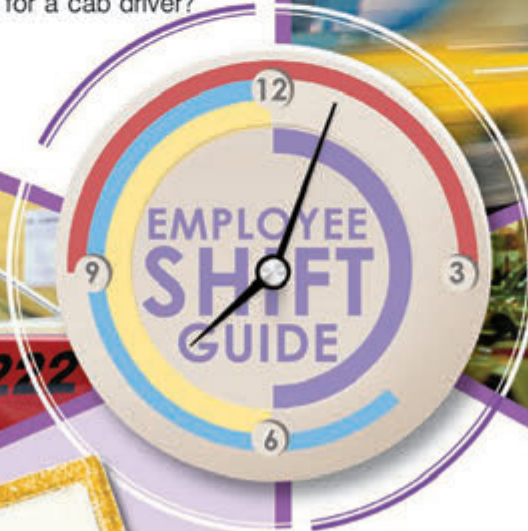
Get ready!

1 Before you read the passage, talk about these questions.

- 1 What are some typical working shifts for cab drivers?
- 2 Why are breaks important for a cab driver?



break



daytime shift



evening shift



shift

Busy B's Cabs: Employee Guide

Working Your Assigned Shift

We know that most drivers prefer **morning** and **daytime** shifts. However, our busiest time is later in the day. This means some employees will work the **evening** and **graveyard** shifts. We will accommodate special requests whenever possible. We let **full-time** employees choose their shifts first. You will probably get a **weekend** shift if you are a **part-time** employee. You may work longer than your assigned **shift**. However, please remember to get enough rest. Company policy allows you to work a **maximum** of 14 hours in a 24-hour **period**. Then, you must take a **break** for a **minimum** of ten hours.

Reading

2 Read the employee guide from a cab company. Then, mark the following statements as true (T) or false (F).

- 1 The cab company is busiest in the morning.
- 2 Part-time employees choose shifts after full-time employees.
- 3 Employees are allowed to work a 15 hour shift.

Vocabulary

3 Match the words or phrases (1-7) with the definitions (A-G).

- | | |
|------------------------------------|--|
| 1 <input type="checkbox"/> shift | 5 <input type="checkbox"/> full-time |
| 2 <input type="checkbox"/> daytime | 6 <input type="checkbox"/> minimum |
| 3 <input type="checkbox"/> morning | 7 <input type="checkbox"/> graveyard shift |
| 4 <input type="checkbox"/> weekend | |

- A working for a period during the night
- B occurring early in the day
- C the lowest amount of something that is allowed
- D a set time when someone works
- E occurring while the sun is out
- F occurring on Saturday and Sunday
- G working a standard number of hours

4 Read the sentences and choose the correct words or phrases.

- The driver worked the **morning/evening** shift so she could attend school earlier in the day.
- Employees are not allowed to work for an entire 24-hour **graveyard shift/period**.
- The driver took a **shift/break** to eat his lunch.
- Drivers are not allowed to work more than the **minimum/maximum** number of hours.
- An employee who works one day per week is considered **part-time/full-time**.

5 Listen and read the employee guide from a cab company again. What can an employee do if he or she needs to work a particular shift?

Listening

6 Listen to a conversation between two cab drivers. Choose the correct answers.

- What is the main idea of the conversation?
 - why the woman cannot work her shift
 - what time a particular shift starts
 - which shift is the most popular
 - whether the man will work the woman's shift
- What is the man's concern about working the evening shift?
 - It is later in the day than his usual shift.
 - It would require him to work on his day off.
 - It is more stressful than the graveyard shift.
 - It would require him to work more than the maximum number of hours allowed.

7 Listen again and complete the conversation.

Cab Driver 1: Hey, Lou. Are you working on Wednesday?

Cab Driver 2: I work the 1 _____ that night. Why do you ask?

Cab Driver 1: I need 2 _____ my evening shift. Do you think you could help me out?

Cab Driver 2: I don't know. I can't work both shifts. That's more than the 3 _____ of fourteen hours.

Cab Driver 1: Oh, right. How about 4 _____ the graveyard shift?

Cab Driver 2: I guess that'll work. Then I just work 5 _____.

Cab Driver 1: Great! I'll tell the dispatcher 6 _____ in the schedule.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

- Are you working ...?*
- I can't work ...*
- How about if ...?*

Student A: You are a cab driver. Talk to Student B about:

- your shift
- his or her shift
- changing shifts

Student B: You are a cab driver. Talk to Student A about changing shifts.

Writing

9 Use the employee guide from Busy B's Cabs and the conversation from Task 8 to fill out the shift change request form.



Busy B's Cabs
Shift Change Request

Employee requesting change: _____

Your current shift: _____

Please describe the change you want to make:

**CAREER
PATHS**

Construction II

Roads & Highways

Virginia Evans
Jenny Dooley
Mark Chavez



Express Publishing

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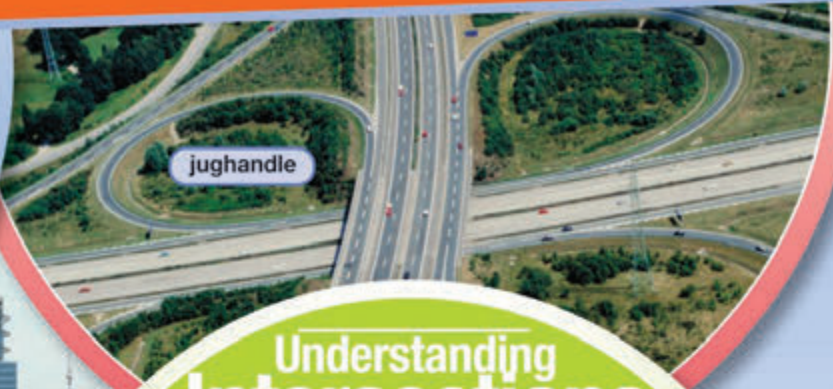
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Types of Intersections

Get ready!

1 Before you read the passage, talk about these questions.

- 1 What are some common types of intersections?
- 2 What types of intersections do not require full stops?



Understanding Intersections

It's important to understand the different types of **intersections**. Intersections can be grouped into two main categories. The first category is intersections that require vehicles to come to a full stop. These include **4-ways**, **T-junctions**, and **box junctions**. The second type of intersection allows traffic to flow without stopping. This group includes **roundabouts**, **traffic circles**, **continuous flow intersections**, and **jughandles**. At any type of intersection, you should know the regulations that apply. For example, it's important to know which vehicle has the **right of way**. This changes by nation and region. Likewise, check how to enter a **turn lane** and whether or not **U-turns** are permitted.

*Driving Around the World
Chapter 10*



Reading

2 Read the chapter. Then, choose the correct answers.

- 1 What is the purpose of the passage?
 - A to describe the safety features of intersection types
 - B to give the pros and cons of full stop intersections
 - C to list different types of intersections
 - D to explain right of way in different intersections
- 2 Which intersection requires a driver to stop?
 - A roundabout C traffic circle
 - B T-junction D jughandle
- 3 Which of the following does NOT change by region or nation?
 - A how to enter turn lanes
 - B whether U-turns are allowed
 - C if box junctions require stops
 - D which vehicle has the right of way

Vocabulary

3 Match the words or phrases (1-7) with the definitions (A-G).

- | | |
|---------------------|-----------------------------------|
| 1 __ roundabout | 5 __ box junction |
| 2 __ traffic circle | 6 __ 4-way |
| 3 __ jughandle | 7 __ continuous flow intersection |
| 4 __ T-junction | |
- A an intersection where one road ends at a right angle
 - B an intersection where vehicles follow a gradual bend
 - C an indirect route over an intersection
 - D an intersection that contains yellow cross-hatching
 - E a road that eliminates left turns at intersections by leading drivers to another turn location
 - F an intersection where traffic coming from all four directions must stop
 - G a circular area at an intersection that allows for vehicles to pass between two roads

- 4 Fill in the blanks with the correct words or phrases from the word bank.

WORD BANK

intersection the right of way
U-turn turn lane

- At the next _____, take a left
 - At a 4-way intersection, the vehicle on the right has _____.
 - It's illegal to make a(n) _____ on this road.
 - This street has a(n) _____ for both left turns as well as right turns.
- 5 Listen and read the chapter again. What are the two main types of intersections?

Listening

- 6 Listen to a conversation between a city planner and a construction manager. Mark the following statements as true (T) or false (F).
- The design calls for a T-junction at 10th Street and Route 9.
 - A roundabout will not fit in the area.
 - The man suggests using a jughandle.

- 7 Listen again and complete the conversation.

Planner: Ms. Reed, I have an idea for the 1 _____ 10th Street and Route 9.

Manager: Sure, James. What is it?

Planner: Well, the plan 2 _____ a four-way stop.

Manager: Yes, that's correct.

Planner: I think that will 3 _____ traffic.

Manager: It will. But there's no room for a 4 _____ there.

Planner: I know. But I think we could fit a 5 _____.

Manager: You know, that's a good idea. Let's 6 _____ at the plans.

Speaking

- 8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

I have an idea for ...
I think that will ...
We could fit a ...

Student A: You are a city planner. Talk to Student B about:

- a planned intersection
- the current plan
- a change to the plan

Student B: You are a project manager. Talk to Student A about an intersection.

Writing

- 9 Use the conversation from Task 8 to complete the construction manager's email.

To: _____
From: _____
Subject: _____

Dear _____,

The Route 9 plan calls for a _____ intersection. I think this will _____. A _____ will not fit. Instead, I suggest we use _____. Let me know what you think.

Sincerely,



roundabout



T-junction

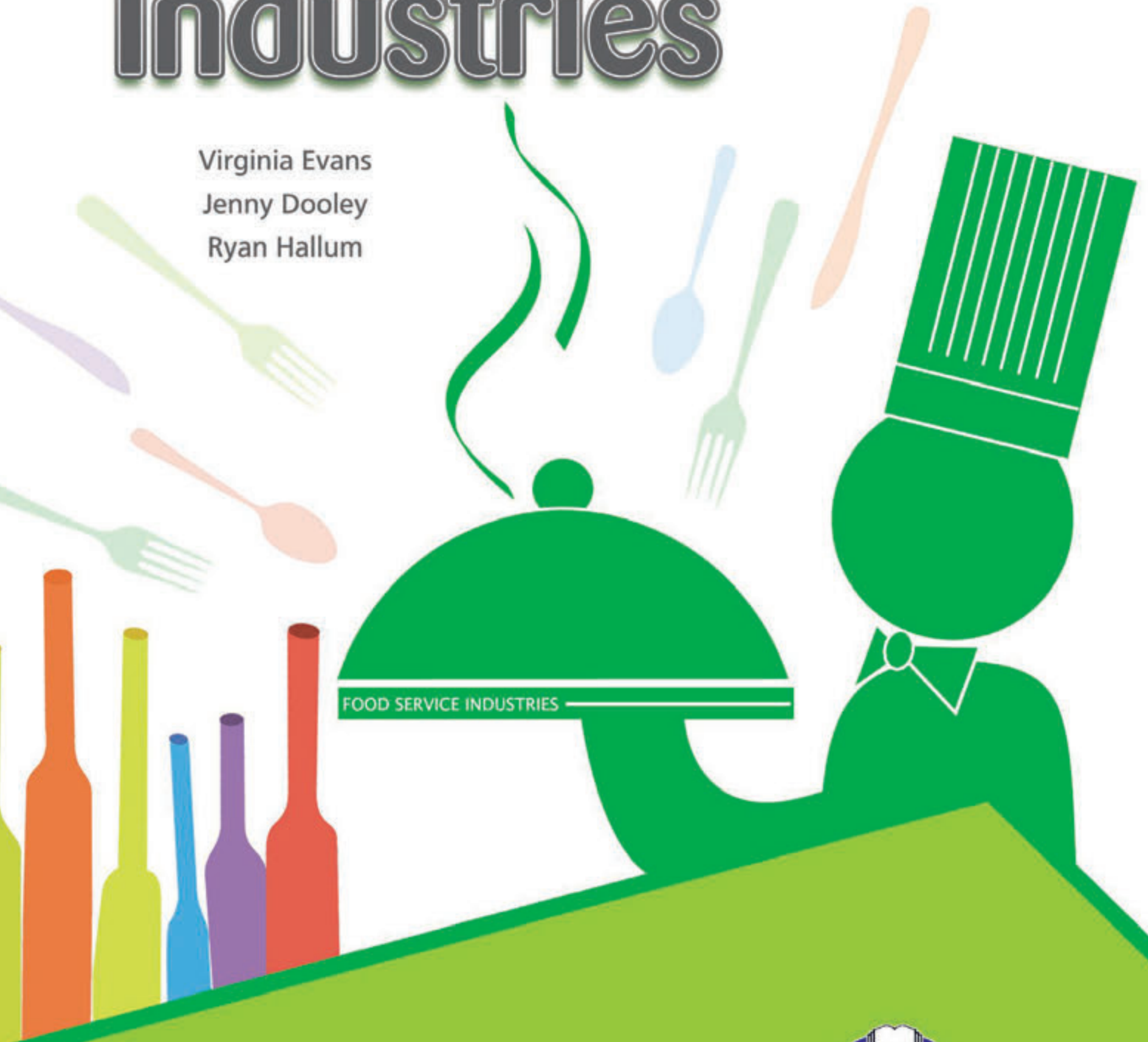


U-turn

**CAREER
PATHS**

FOOD SERVICE Industries

Virginia Evans
Jenny Dooley
Ryan Hallum



Express Publishing

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2 Types of Menu

Get ready!

1 Before you read the passage, talk about these questions.

- 1 Why do restaurants have menus?
- 2 What are some different types of menus?

POWERFUL PRINT DESIGNS ◀ www.powerfulprints.com/menus

HOME ABOUT US SERVICES CONTACT



We create print designs for a variety of businesses, including restaurants. Choose from several **menu** templates, or let us custom design one for you. Just provide us with a list of menu items for **meal periods**. We'll create the perfect **fixed menus** or **cycle menus** for your eating establishment.

If you need **specialty menus**, look no further. We create **children's menus** that are so entertaining, adults want them, too. **Ethnic menus** are no problem. We can design them in English and the ethnic language of your choice. Does your diner offer hamburgers for breakfast and pancakes for dinner? We can devise a casual **California menu** for you.

Powerful Print Designs also creates elegant **banquet menus** for hotels, caterers, and restaurants. We'll even customize designs for special occasions like weddings or birthdays.

We also offer **door-knob menus** for hotels that offer room service.

Click [here](#) to see some of our great menu designs.

Reading

2 Read the webpage. Then, mark the following statements as true (T) or false (F).

- 1 ___ The website is advertising a restaurant's different menus.
- 2 ___ Specialty menus, such as children's menus, are available.
- 3 ___ Menus can be specially designed or based on a template.

Vocabulary

3 Write a word or phrase that is similar in meaning to the underlined part.

- 1 The restaurant had a menu focusing on traditional meals associated with a specific kind of cuisine. _ t _ ni _ _ e _ u
- 2 The man looked at the list of dishes that the restaurant was able to prepare for customers. m _ n _
- 3 The restaurant introduced a menu that altered daily for a specific time period, that repeats. _ _ c l _ _ me _ _
- 4 The customers ordered from the menu that is used daily or during a meal period. f _ _ e _ _ _ en _

4 Fill in the blanks with the correct phrases from the word bank.

WORD BANK

banquet menu California menu
children's menu door-knob menu
meal period specialty menu

- 1 The hotel guest hung the room service _____ outside her hotel room.
- 2 The customers asked for a _____ as they wanted to order dessert.
- 3 The man liked the idea of breakfast at night, so he ordered from the _____.
- 4 We arrived late for the lunch _____, so we used the dinner menu.
- 5 The conference attendees could select between a few preset items on the _____.
- 6 The six-year old girl enjoyed the puzzles and games on the _____.

- 5 Listen and read the webpage again. What large event menus does the print shop handle?

Listening

- 6 Listen to a conversation between two restaurant owners. Choose the correct answers.

- Why were the customers disappointed?
 - A because the pancakes did not taste good
 - B because the kitchen ran out of bacon
 - C because the menu did not have enough dishes
 - D because they wanted burgers for breakfast
- What will the man most likely do next?
 - A create a specialty burger menu
 - B remove the breakfast menu
 - C switch to a California menu
 - D print out a new fixed menu

- 7 Listen again and complete the conversation.

Owner 1: I think we should change our menu.

Owner 2: Why? 1 _____ right now.

Owner 1: Oh, I don't mean changing 2 _____ we're offering.

Owner 2: Then what do you mean?

Owner 1: Just changing from a 3 _____ to a California menu.

Owner 2: That might not be a bad idea. But 4 _____ think of it?

Owner 1: Some customers were disappointed because they couldn't get our famous burgers 5 _____.

Owner 2: Burgers for breakfast? Yuck!

Owner 1: Okay, look at it this way ... did you ever have pancakes for dinner when you were 6 _____?

Speaking

- 8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

Oh, I don't mean ...

That might not be ...

I bet ...

Student A: You are a restaurant co-owner. Talk to Student B about:

- a menu change
- disappointed customers
- childhood memories

Student B: You are also a restaurant co-owner. Talk to Student A about the menu.

Writing

- 9 Use the conversation from Task 8 to fill out a notice explaining the menu change to the restaurant staff.



Notice

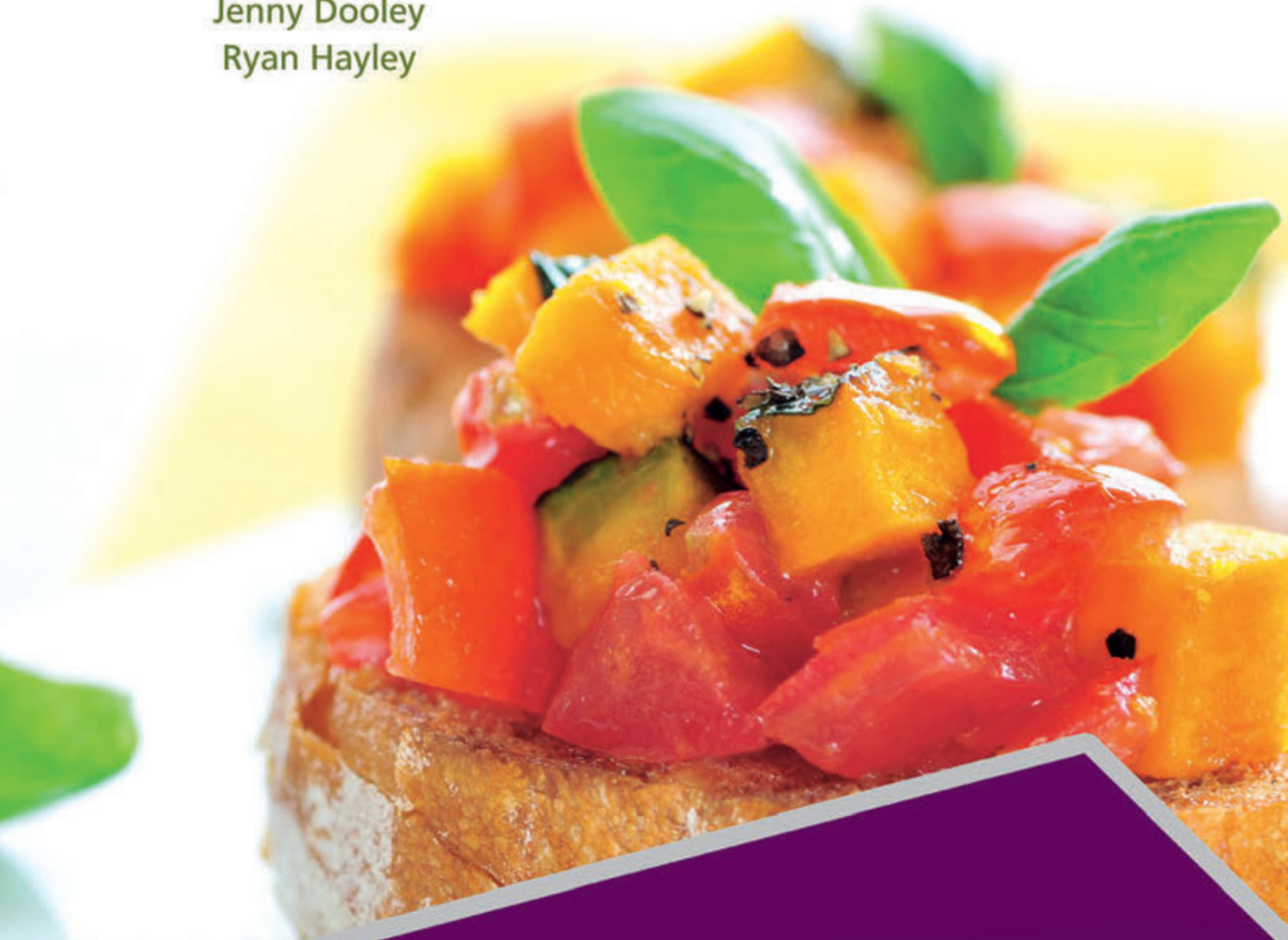
Attention Staff: _____

New Menu Launch Date: _____

**CAREER
PATHS**

Cooking

Virginia Evans
Jenny Dooley
Ryan Hayley



Express Publishing

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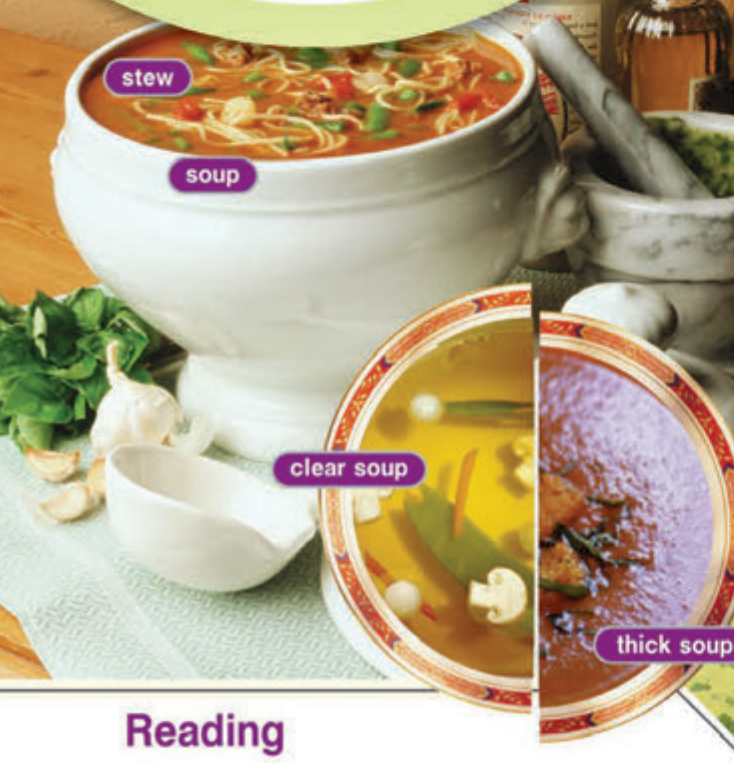
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Get ready!

1 Before you read the passage, talk about these questions.

- 1 What kinds of soups are made with vegetables?
- 2 What kinds of soups are made with meat and seafood?



The "Mailman" Newspaper



The Style Diner

with Food Critic Allison Dale

Westside Café on Bayside Drive advertises their chef as "The King of **Soups**." I visited the restaurant last weekend to find out what they mean. The soups weren't all perfect, but most of them were pretty close.

I was pleased to find that every soup at Westside Café includes home-made **broth** and fresh, local ingredients. The chef told me that he's always willing to pay extra for high-quality ingredients.

Their **thick soups** were excellent. The broccoli **cream soup** was so rich that it almost seemed like a dessert. The tomato **puree** was much simpler, but still delightful. I don't usually enjoy shellfish, but the clam **chowder** and lobster **bisque** were both nicely

seasoned. If you're visiting Westside Café for the first time, I recommend starting with the hearty chicken-potato **stew**. I only tried a few bites, but it was clearly the most filling meal on the menu.

The **clear soups** were not nearly as charming. I tried a beef **consommé** that seemed more like canned **bouillon**. The chef explained that this was due to the process of **clarification**, but I found it watery and uninteresting. It was the only soup I would not recommend.

Reading

2 Read the newspaper article about a soup restaurant. Then, choose the correct answers.

- 1 What is the main idea of the article?
 - A best soups for different occasions
 - B ingredients in a particular kind of soup
 - C ways to maintain freshness of soups
 - D recommendations about various soups
- 2 Which soup did the reviewer dislike?
 - A tomato puree
 - B clam chowder
 - C lobster bisque
 - D beef consommé
- 3 Which is NOT offered by the restaurant?
 - A home-made broth
 - B fresh, local ingredients
 - C thick, rich clear soups
 - D chicken-potato stew

Vocabulary

3 Write a word or phrase that is similar in meaning to the underlined part.

- 1 The thick soup with pieces of meat and vegetables is very filling. s _ _ _
- 2 The restaurant specializes in foods made by heating ingredients in liquid. _ o _ _ s
- 3 The last step in making a consommé is the process for removing solids and impurities. _ l a _ _ _ i c _ _ _ _ n
- 4 The chef created a new recipe for a soup with the solids strained out. c _ _ _ r _ _ o _ _
- 5 The restaurant makes its liquid bases for soups in-house. _ _ _ t h s
- 6 The customer prefers soups made with a mixture of solids. _ h _ _ k s _ _ _ s

- 4 Place the words or phrases from the word bank under the correct headings.

Word BANK

chowder bouillon puree
cream soup consommé bisque

| Thick soups with vegetables | Thick soups with shellfish | Clear soups |
|-----------------------------|----------------------------|-------------|
| _____ | _____ | _____ |
| _____ | _____ | _____ |

- 5 Listen and read the newspaper article about a soup restaurant again. What did the reviewer like about both the chowder and the bisque?

Listening

- 6 Listen to a conversation between a restaurant server and a customer. Mark the following statements as true (T) or false (F).

- ___ The beef consommé was not prepared correctly.
- ___ The woman would prefer a soup made with shellfish.
- ___ The man recommends cream soup.

- 7 Listen again and complete the conversation.

Server: Would you prefer the chicken-potato stew instead? It's 1 _____ than this one.

Customer: No, that sounds too heavy. I'd rather have something a little lighter, but still 2 _____.

Server: If that's what you're looking for, I'd recommend the 3 _____.

Customer: No, I 4 _____. Do you have something with vegetables?

Server: Let's see. Oh, of course. We have 5 _____ broccoli cream soup.

Customer: That 6 _____. Bring me that instead.



Speaking

- 8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

How do you like ...?
It's too ... for my taste.
I'd recommend ...

Student A: You are a restaurant server. Talk to Student B about:

- a problem with soup
- why he or she doesn't like the soup
- your recommendations

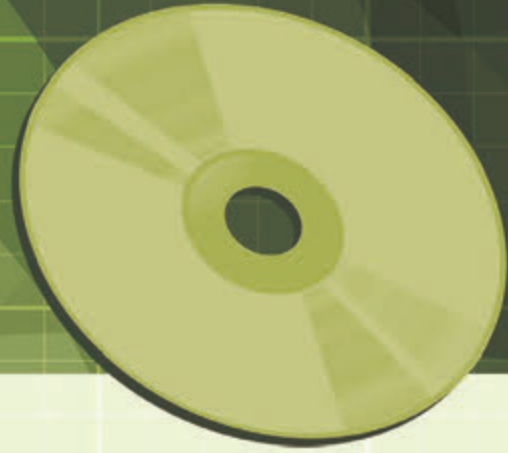
Student B: You are a customer. Talk to Student A about a problem with your soup.

Writing

- 9 Use the newspaper article about a soup restaurant and the conversation from Task 8 to write a customer satisfaction report. Include: a product that a customer ordered, why the customer was not satisfied, and actions taken to resolve the problem.

**CAREER
PATHS**

Virginia Evans
Jenny Dooley
Enrico Pontelli



SOFTWARE ENGINEERING



Express Publishing

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Get ready!

1 Before you read the passage, talk about these questions.

- 1 What are some ways that software is distributed?
- 2 How do users pay for cloud computing services?



Computer World:

Specialized Software

Cloud computing is changing the **distribution** of computing and storage services. Cloud computing is a network of companies and users sharing resources. Software engineers must be ready to meet demands for this specialized software.

One model of cloud computing is **SaaS**, or Software as a Service. In this model, software is hosted by a provider and accessed over a network. Another example is **PaaS**, or Platform as a Service. In this model, computer hardware and software are rented. **Software on demand** falls under the PaaS category.

To provide their services, companies purchase **software licenses**. Then they charge users for access to the software. Some companies charge users by **metered fees**. This means that users pay afterwards for whatever they used. Others support **pay-as-you-go** systems. In these cases, **software as a product** is purchased in advance, when it is needed.

Several requirements of the **computer platform** are necessary to access cloud technology. The computer must be **online**. The **bandwidth** of the system needs to be large in order to quickly send and receive information. But if the specifications are right, cloud computing is a tremendously useful tool. Users can easily access data from web **browsers**, among other methods. A tip to software engineers: get into this expanding industry!

Reading

2 Read the journal article. Then, choose the correct answers.

- 1 What is the main idea of the article?
 - A the challenges of developing cloud computing software
 - B recent changes in cloud computing technology
 - C the history of the development of cloud computing
 - D an overview of cloud computing models
- 2 What is true of SaaS users?
 - A They access software that is provided by a network host.
 - B They rent software from a cloud computing provider.
 - C They purchase software from the developer.
 - D They need a specialized web browser.
- 3 Which of the following is NOT required for users to access a cloud?

| | |
|--------------------|---------------------|
| A web browser | C a fee |
| B software license | D a large bandwidth |

Vocabulary

3 Match the words (1-8) with the definitions (A-H).

- | | |
|-------------------------|--------------------------|
| 1 ___ cloud computing | 6 ___ online |
| 2 ___ distribution | 7 ___ bandwidth |
| 3 ___ software license | 8 ___ software on demand |
| 4 ___ computer platform | |
| 5 ___ browser | |
- A a software system that is used to gain access to information on the internet
 - B being connected to the internet
 - C a measure of a computer system's capacity to send and receive information
 - D a combination of hardware and system software that allows an application to run
 - E a model in which software is rented from a provider
 - F a legal agreement which grants the buyer of a program the right to use it
 - G the action of supplying a product or service
 - H a model in which computing is delivered as a service rather than as a product

4 Choose the sentence that uses the underlined part correctly.

- 1 **A** In PaaS, computer software can be rented.
B A computer must be equipped with SaaS to access a web browser.
- 2 **A** The company uses a pay-as-you-go system, requiring a set monthly fee.
B The customer pays a metered fee, so he only pays for the services he uses.
- 3 **A** To access data storage, a computer must have software on demand.
B Some software developers only supply software as a product.

5 Listen and read the journal article again. What must a computer have in order to access the cloud?

Listening

6 Listen to a conversation between a manager and an engineer. Mark the following statements as true (T) or false (F).

- 1 ___ The man had a negative experience with cloud computing
- 2 ___ The company recently requested a new software license.
- 3 ___ The woman recommends SaaS.

7 Listen again and complete the conversation.

Manager: Hey, Tonya. I'm thinking about upgrading the company's network, and I was wondering what **1** _____.

Engineer: SaaS is a networking model.

Manager: I don't know much about computers. What does that mean?

Engineer: Let me explain the basics. SaaS stands for Software as a Service. It is a model that **2** _____.

Manager: What's cloud computing?

Engineer: It's a **3** _____ services.

Manager: So it's a way to access information?

Engineer: Yes, partly. Clients purchase the right to a **4** _____ . Then they share that software with their users.

Manager: Okay. How **5** _____ for that, though?

Engineer: Clients typically pay regular fees. Some companies charge users metered fees, while others **6** _____ - _____ - _____. It just depends on your needs.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

I'm thinking of ...

What are your thoughts on ...

Some prefer ...

Student A: You are a manager. Talk to Student B about:

- elements of cloud computing
- how the services work
- his or her recommendation

Student B: You are an engineer. Talk to Student A about elements of cloud computing.

Writing

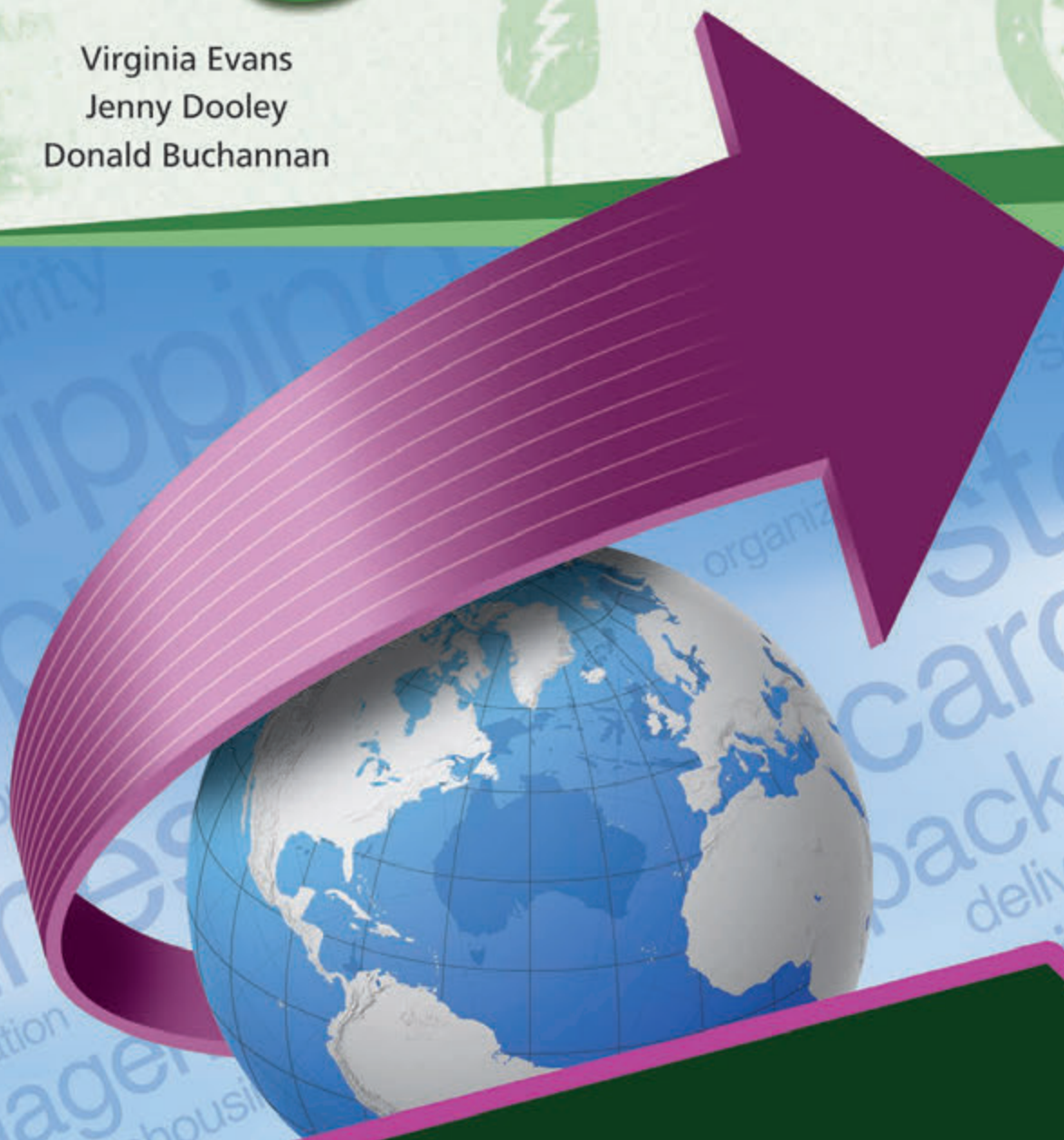
9 Use the journal article and conversation from Task 8 to write a review of SaaS and PaaS. Include: user options for accessing information, how users can pay for services, and what computer requirements users need to access the cloud.



**CAREER
PATHS**

Logistics

Virginia Evans
Jenny Dooley
Donald Buchannan



Express Publishing

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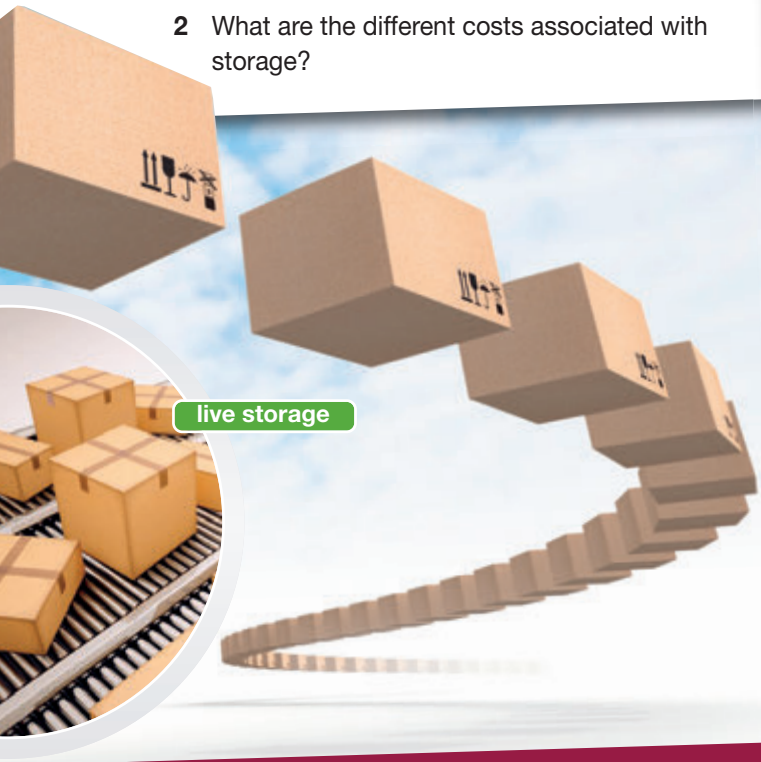
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14 Storage Analysis

Get ready!

1 Before you read the passage, talk about these questions.

- 1 What are the four classes of storage and handling?
- 2 What are the different costs associated with storage?



Storage Analysis

Storage equipment is used to hold and handle materials between operations. There are four handling methods. Each requires different equipment:

- **Simple storage** allows easy access for put-away, picking, and retrieval. Yet, it requires more space per unit. This is due to larger aisle **allowances** and less vertical space. Simple storage uses bin shelving and pallet racking.
- **Complex staging** is good for temporary **accumulation**, presentation, or picking. It is good for low-flow materials with large inventories. Sometimes, it is mechanized for speed. Complex staging often uses shuttle systems.
- **High-density storage** minimizes space by using more vertical space. However, it is slower and costlier than other methods. Bulk floor stacking is an example of high-density storage.
- **Live storage** uses conveyor belts and live rollers. Its purpose is to allow easier accumulation.

All storage methods require **handling costs**. **Holding costs** and **occupancy costs**, including **housekeeping**, may also be incurred. Logisticians also need to consider **intangibles**. These include needs for **expandability** and **versatility**.

Reading

2 Read the textbook excerpt. Then, choose the correct answers.

- 1 What is the purpose of the excerpt?
A to list examples of mechanical equipment
B to explain how to minimize space during storage
C to describe handling methods and their costs
D to contrast simple storage with complex staging
- 2 Which of the following is NOT a storage cost?
A handling C occupancy
B holding D accumulation
- 3 Why do logisticians sometimes use live storage?
A to permit easier accumulation of materials
B to include versatility and expandability
C to use more vertical space during storage
D to allow for larger aisle allowances

Vocabulary

3 Match the words or phrases (1-7) with the definitions (A-G).

- | | |
|----------------------------|----------------------|
| 1 ___ live storage | 5 ___ holding cost |
| 2 ___ simple storage | 6 ___ handling cost |
| 3 ___ complex staging | 7 ___ occupancy cost |
| 4 ___ high-density storage | |
- A a system that allows easy access for putting away items, picking, or retrieval
B the price that is paid to put an item in storage and to retrieve it
C the cost of using a space
D a system that is designed to reduce space per storage position
E the price that is paid to keep a stock of goods in storage
F the process of storing items on a conveyor belt or live rollers
G a mechanical system for short-term accumulation, presentation, and picking

- 4 Fill in the blanks with the correct words or phrases from the word bank.

Word BANK

intangibles allowances versatility
 accumulation housekeeping expandability

- A good storage method should include both adaptability and _____.
 - Unlike simple storage, complex staging allows for temporary _____.
 - The storage analysis guide considers costs and _____, such as safety.
 - High-density storage lowers aisle _____.
 - _____ allows for an increase in inventory.
 - Cleanliness and organization are key aspects of _____.
- 5 Listen and read the textbook excerpt again. Which handling system incurs higher costs?

Listening

- 6 Listen to a conversation between a professor and a student. Mark the following statements as true (T) or false (F).
- ___ The man explains the meaning of a handling cost.
 - ___ Occupancy costs include taxes, insurance, and housekeeping.
 - ___ Versatility and expandability are intangibles.

- 7 Listen again and complete the conversation.

Student: The first storage cost is a 1 _____.
 This is the price of putting an item in storage,
 then retrieving it at a later date.

Professor: Right. What else?

Student: There's a 2 _____. This is the cost of
 maintaining inventory. That basically means that the
 items will remain in storage until they are needed.

Professor: Right. And what else?

Student: I can't remember the last one.

Professor: No problem. It's an 3 _____.

Student: Right! That includes taxes, insurance, and 4 _____.

Professor: Yes, but a logistician must always consider
 5 _____. Such as ...?

Student: Such as the needs for 6 _____,
 both of which depend on space allowances.

Speaking

- 8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

This is the price of ...
That basically means that ...
Such as the needs for ...

Student A: You are a professor.
 Talk to Student B about:

- storage costs
- how to describe each cost
- intangibles

Student B: You are a student.
 Talk to Student A about storage
 costs and intangibles.

Writing

- 9 Use the conversation in Task 8 to complete the chart.



Storage Costs

Handling Costs: _____

Holding Costs: _____

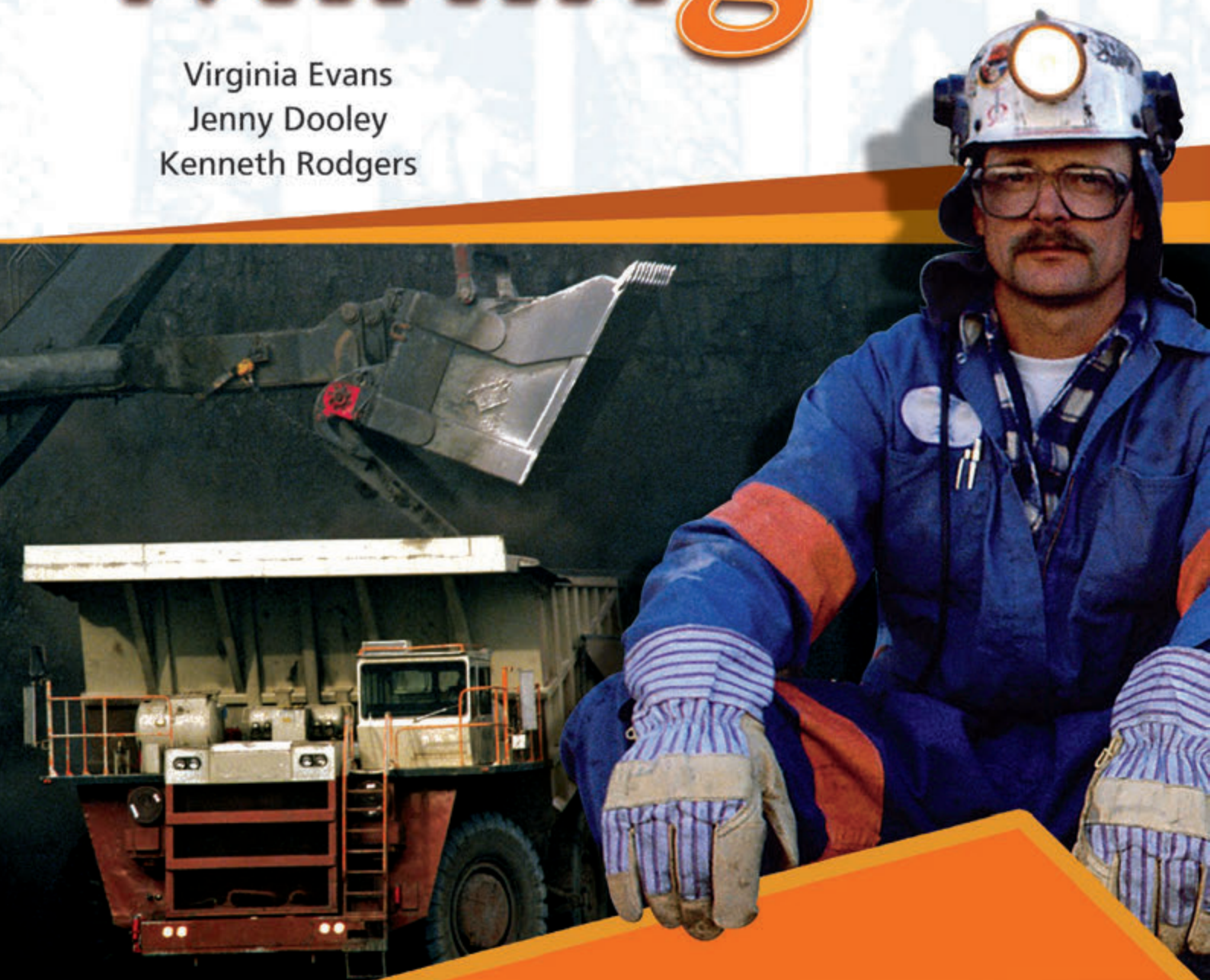
Occupancy Costs: _____

**CAREER
PATHS**

NATURAL RESOURCES II

Mining

Virginia Evans
Jenny Dooley
Kenneth Rodgers



Express Publishing

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Get ready!

1 Before you read the passage, talk about these questions.

- 1 Why are directions important in mining?
- 2 What does a foreman need to report?



Date: March 12

South Queens Mine

Foreman Reports

Regina Plumb, Foreman, Section 3

The **breast** is 20 meters farther **inby** today. We are continuing with a 10% **fall**. The **bottom** is at 1,200 feet. Our **underhand** progress is satisfactory. We have plenty of **head room**.

Max Ruiz, Foreman, Section 7

The breast is 25 meters farther inby today. We are continuing with a 5% **rise**. The **back** is at 800 feet. Have significant **overhand** progress. Head room is somewhat limited.

Dan Halloway, Foreman, Section 6

The breast is 5 meters farther inby today. We are doing **outby** work. We want to expand the mine. We need more head room. We also need more workers for the **steep** rock face.

Reading

2 Read the report. Then, choose the correct answers.

- 1 What information is NOT included in the report?
 - A The progress of different crews.
 - B The amount of head room in different sections.
 - C The direction of mining work progress.
 - D The cost of expanding a mine.
- 2 What is true about Max Ruiz's crew?
 - A They don't have enough head room.
 - B They are moving upwards.
 - C They are working at a surface mine.
 - D They need more workers.
- 3 What does Dan Halloway report?
 - A His crew is moving downwards.
 - B He doesn't have enough workers.
 - C His team has not made any progress.
 - D He wants to work in a different section.

Vocabulary

- 3 Read the sentence pairs. Choose which word or phrase best fits each blank.

1 inby / outby

- A Work going away from the mine entrance is _____.
- B Work going toward the mine entrance is _____.

2 underhand / overhand

- A Work advancing upward is _____.
- B Work advancing downward is _____.

- 4 Match the words (1-6) with the definitions (A-F).

- 1 __ back 4 __ steep
2 __ bottom 5 __ rise
3 __ breast 6 __ fall

- A having a slope of more than 45 degrees
B the highest point inside of a mine
C degree of downward slope
D degree of upward slope
E the working face inside of a mine
F the lowest point inside of a mine

- 5 Listen and read the report again. How do miners report the upward or downward slope in a mine?

Listening

- 6 Listen to a conversation between a foreman and a crew member. Mark the following statements as true (T) or false (F).

- 1 __ The man is a new employee.
2 __ The woman works in Section 3.
3 __ The speakers will continue outby work.

- 7 Listen again and complete the conversation.

Foreman: Hi, you must be Corey. This is your 1 _____, right?

Crew Member: That's right. I'm really excited to start.

Foreman: Wonderful. Well, I'm Regina. I'm the foreman in Section 3. You're 2 _____.

Crew Member: Great. So what are we doing today?

Foreman: We're working on 3 _____ the section.

Crew Member: Why is that?

Foreman: The workers need a bit more 4 _____.

Crew Member: What about 5 _____ with the expansion?

Foreman: We'll continue 6 _____ with a 10 percent rise.

Speaking

- 8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

*So what are we doing today? / We're working on ...
What about after we finish ...?*

Student A: You are a crew member. Talk to Student B about:

- what work you will be doing today
- why the work is necessary
- what work you will do after finishing

Student B: You are a foreman. Answer Student A's questions.

Writing

- 9 Use the conversation from Task 8 to complete the work progress report.

Work Progress Report

Foreman Name: _____

Description of Progress:

Today, our crew worked in Section _____.

First, we worked on _____.

This work was necessary because _____.

_____.

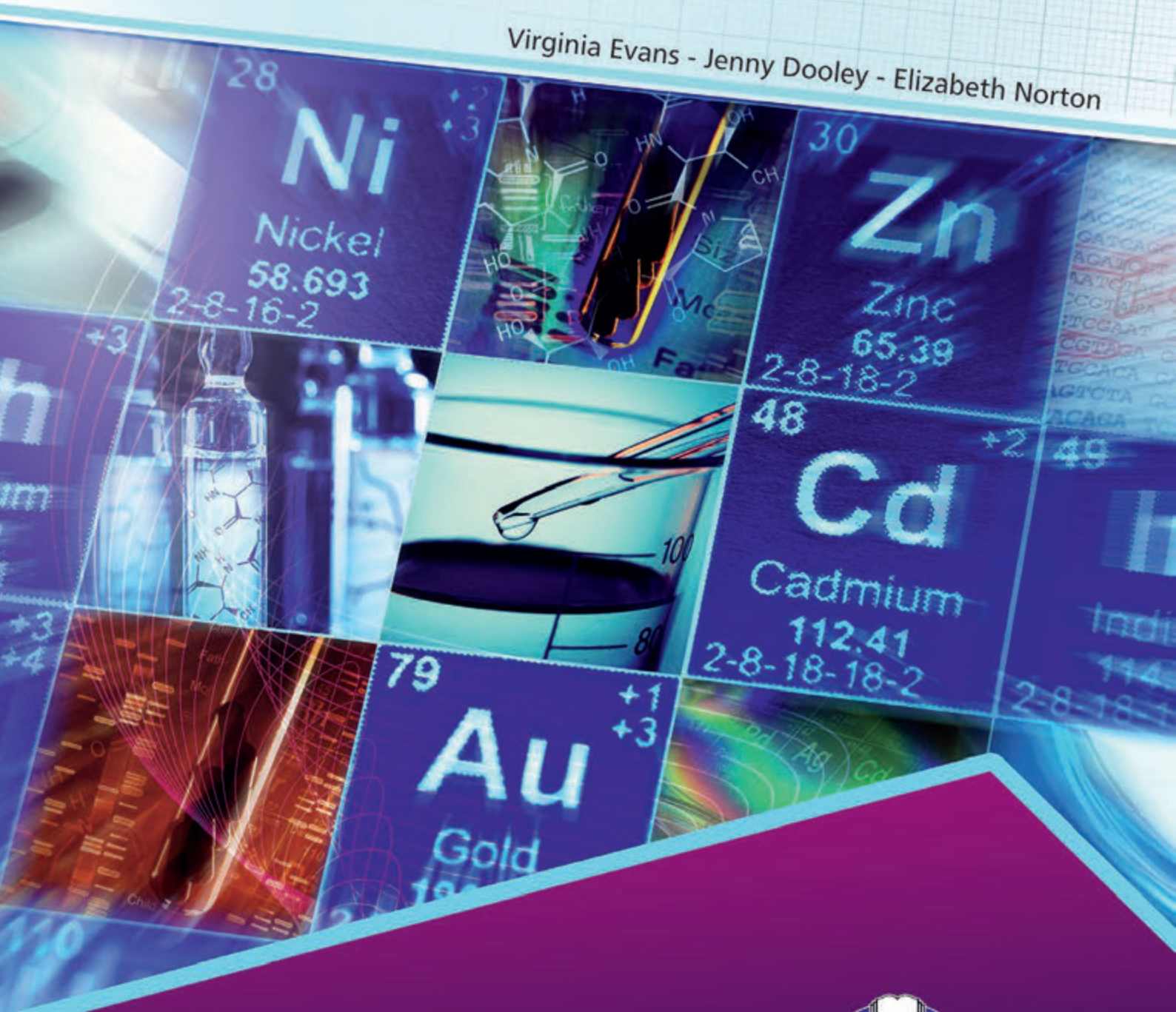
Afterwards, we _____.

_____.

**CAREER
PATHS**

Science

Virginia Evans - Jenny Dooley - Elizabeth Norton



Express Publishing

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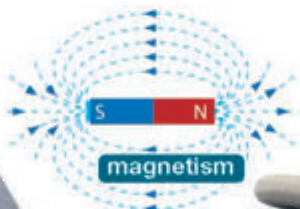
Get ready!

1 Before you read the passage, talk about these questions.

- How are physics and electromagnetism related?
- What are some examples of physics in everyday life?



motion



magnetism



equilibrium

COURSE DESCRIPTION

Physics 101: Intro to Physics

This course is a combined lecture and lab series. It's a survey of classical and modern physics, and the fundamental **laws** of nature. A standard physics course involves the movement of matter through space and time. We'll cover the traditional topics as well as related concepts. We'll focus on elements of physics in everyday life, such as **gravity** and energy. Students must complete the lecture series before beginning any labs. As an introductory course, there are no prerequisites to take this class. However, knowledge of secondary-level math and science is essential.

We'll briefly discuss the four laws of **thermodynamics**. This will prepare students for more detailed discussion in upper-level courses. In labs, we'll examine how these relate to **equilibrium** and other scientific phenomena.

In the lab component, students examine **motion** and its operation in nature. We'll identify **constants**, opposing forces, and rates of change. We'll address this with an emphasis on **momentum** and **conservation** of energy. Students interested in **electromagnetism** should pay close attention to the final lab. There, we'll create models demonstrating **magnetism** and motion. The lab instructor will demonstrate the effects of **waves** in self-contained environments. Students will see how the **vibrations** are practically visible.

This course is a prerequisite for all upper-level physics courses.



gravity

Reading

2 Read the course description. Then, choose the correct answers.

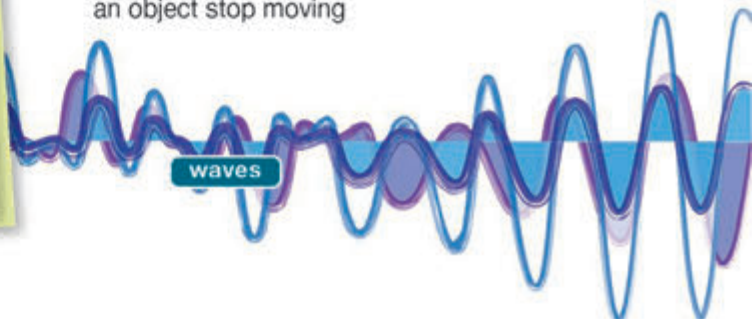
- What do students need to know before taking the class?
 - theories of thermodynamics
 - general physics concepts
 - secondary-level math and science
 - upper-level chemistry
- Which concept is addressed in the labs on equilibrium?
 - thermodynamics
 - electromagnetism
 - conservation of energy
 - momentum
- What is true about the lab component?
 - It requires students to attend the lectures first.
 - It applies theories from advanced physics.
 - It focuses on the ideas of gravity and energy.
 - It allows students to develop their own experiments.

Vocabulary

3 Match the words (1-6) with the definitions (A-F).

- | | |
|----------------|-----------------------|
| 1 __ law | 4 __ momentum |
| 2 __ wave | 5 __ thermodynamics |
| 3 __ vibration | 6 __ electromagnetism |

- a branch of science that studies heat and other forms of energy
- an explanation of a natural process that is always true
- the interaction between electrical currents and magnetic fields
- a disturbance that moves through a substance
- a repeated movement in a substance or field of energy
- a measurement of the force required to make an object stop moving



waves

- 4 Fill in the blanks with the correct words from the word bank.

Word BANK

motion **constant**
equilibrium **conservation**
magnetism **gravity**

- The experiment included a set of variables and one _____.
- The students applied equal force to each side of the table in order to demonstrate _____.
- The instructor used an apple dropping to the ground to demonstrate _____.
- The physics class used movement of toy cars to analyze _____.
- The section about _____ of energy covered ways to store it for future use.
- The positive attraction of the two objects was an example of _____.

- 5 Listen and read the course description again. Why is the conservation of energy important?

Listening

- 6 Listen to a conversation between a TA and a student. Mark the following statements as true (T) or false (F).

- ___ The man is unfamiliar with electromagnetism.
- ___ The woman offers the man her lecture notes.
- ___ The course primarily focuses on the laws of thermodynamics.

- 7 Listen again and complete the conversation.

TA: You look a bit worried. 1 _____?

Student: I'm concerned that I'm unprepared for this course.

TA: Why is that?

Student: The concepts the professor discussed today were completely 2 _____.

TA: I see. Is it physics in general 3 _____?

Student: Thermodynamics and electromagnetism, specifically. I think I might be in the wrong class.

TA: Don't worry. You're not expected to be familiar with those concepts initially. Also, we'll only 4 _____ in this class.

Student: How will I get through those sections, though?

TA: If you can understand equilibrium and motion, 5 _____.

Student: That doesn't 6 _____. I studied those in high school.

Speaking

- 8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

Why is that? / I don't really understand ...
In our class ...

Student A: You are a TA. Talk to Student B about:

- topics in a physics class
- concepts he or she is having trouble with
- how his or her current knowledge applies

Student B: You are a student. Talk to Student A about topics in a physics class.

Writing

- 9 Use the course description and the conversation from Task 8 to write an email to a TA. Include: course concepts, what you're familiar with, and what you'll need help with.



CAREER
PATHS

INSURANCE

Virginia Evans - Jenny Dooley - Stephen Leland Keel, JD, MBA



Express Publishing

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15 Credit Insurance

Get ready!

1 Before you read the passage, talk about these questions.

- 1 What are the risks of being a lender?
- 2 What are some types of credit insurance policies?



Reading

2 Read the advertisement. Then, mark the following statements as true (T) or false (F).

- 1 ___ According to the ad, offering trade credit increases a business's risk of financial loss.
- 2 ___ The ad recommends the Gold Plan for banks and other lenders.
- 3 ___ Mortgage insurance is part of the standard Platinum Plan.

Vocabulary

3 Match the words or phrases (1-6) with the definitions (A-F).

- 1 ___ debt
- 2 ___ lender
- 3 ___ default
- 4 ___ bankruptcy
- 5 ___ credit insurance
- 6 ___ accounts receivable

- A to fail to pay money that is owed
- B money that customers or clients owe to a company
- C coverage that protects a company from loss when it fails to receive a payment
- D any amount of money that someone owes to someone else
- E a person or company that gives people money with the promise of repayment
- F a legal status indicating that a person is insolvent

W&C Attention Business Owners!

Do you think **credit insurance** is a waste of money?

Think again!

Credit insurance is vital for any business that offers **trade credit**. Do your customers receive your services now and pay for them later? If so, you are at risk for financial loss. You need protection!

The W&C Business Gold Plan is great for small-to-medium sized businesses. It offers full coverage for your **accounts receivable**. In other words, you're protected if customers fail to pay their **debts**.

For banks and other **lenders**, we recommend the W&C Business Platinum Plan. It offers additional protection for businesses that handle large amounts of money. **Borrowers** can **default** on **loans** for a variety of reasons. Some declare **bankruptcy** due to financial **insolvency**. Others simply refuse to pay. Whatever the reason, the Platinum Plan is your best defense. It includes **payment protection insurance** in case the borrower becomes ill. You may also choose the **mortgage insurance** add-on if your business issues loans on real estate purchases.

Call **W&C** today for a free consultation!

4 Read the sentence pairs. Choose which word or phrase best fits each blank.

- 1 mortgage insurance / payment protection insurance
 A _____ specifically covers a borrower's illness or injury.
 B Real estate lenders particularly benefit from _____.
- 2 insolvency / trade credit
 A The borrower is on the verge of _____.
 B Many business customers purchase services on _____.
- 3 loan / borrower
 A The home buyer needed a _____ to afford the house.
 B The _____ repaid his debt at the required time.

5 Listen and read the advertisement again. Who is protected by mortgage insurance?

Listening

6 Listen to a conversation between two company managers. Choose the correct answers.

- 1 What is the conversation mostly about?
 A reasons to purchase a new credit insurance policy
 B the money that the speakers owe to other companies
 C debts to the company that have not been repaid
 D whether the speakers' company will become insolvent
- 2 What will the woman likely do next?
 A attempt to reach a bankrupt client
 B contact the insurer about a payment protection claim
 C review the coverage options in several credit insurance plans
 D calculate the amount owed from accounts receivable

7 Listen again and complete the conversation.

- Manager 1:** We have a couple of problems. The Miller account is still unpaid.
- Manager 2:** Still? That was a huge loan. Did the Millers 1 _____?
- Manager 1:** Not that I know of. I can't 2 _____ from them by phone or by mail.
- Manager 2:** We'd better contact our insurance agent. We might be able to file a claim under our 3 _____.
- Manager 1:** Ah, yes. That's a good idea. We might 4 _____ for another account, too.
- Manager 2:** Really? 5 _____?
- Manager 1:** The Kramer account. Mr. Kramer is extremely ill, and his company is 6 _____.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

Have you looked at ...?
We'd better ...
We might be able to ...

Student A: You are a company manager. Talk to Student B about:

- unpaid debts to your company
- the status of a particular account
- whether the insurance will cover the debt

Student B: You are a company manager. Talk to Student A about unpaid debts to your company.

Writing

9 Use the conversation in Task 8 to complete the meeting notes.

Notes

January 10

Meeting Topic:

Status of Accounts Receivable

Unfortunately, there are several unpaid debts to our company.

One unpaid account is _____

Reason for default: _____

Actions needed: _____

Another unpaid account is _____

Reason for default: _____

Actions needed: _____

**CAREER
PATHS**

FISHING & Seafood Industry

Virginia Evans
Jenny Dooley
Mark Glendale



Express Publishing

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1 Navigation



Introduction to Navigation



This course introduces students to the basics of nautical navigation. We will begin with the history of navigational techniques. The beginning of the course will cover early types of **celestial navigation** all the way to modern **electronic navigation**.

We will also focus on the terminology for understanding a nautical **chart**. We will cover core concepts like **latitude** and **longitude**. These concepts will help us understand basic locational techniques. Then we will study terms for calculating speed, distance, and location. These include **degrees**, **minutes**, and **seconds**. Terms like these have different meanings at sea than they do in other contexts.

By the end of this course, you will be able to **plot** a ship's **bearing**, **range**, or **position**. You'll learn to calculate the exact **fix** of a ship using tools such as **radar**, **radio beacons**, and **GPS**. Following that, you'll practice drawing accurate **LOPs**. You will be able to measure how many **nautical miles** a ship is from shore. Finally, you'll learn to estimate quickly how many **knots** it is traveling.

The final exam for this course tests your ability to read charts. You will also have to plot a fix using celestial navigation skills as well as electronic ones.

longitude

latitude

Get ready!

1 Before you read the passage, talk about these questions.

- 1 What is the difference between celestial and electronic navigation?
- 2 What are some technologies used in navigation?

Reading

2 Read the course description. Then, choose the correct answers.

- 1 What is the main purpose of the course?
A to teach experienced sailors about new electronic techniques
B to train students to draw their own nautical charts
C to introduce beginners to various navigation techniques
D to teach students to plot and follow a course at sea
- 2 Which of the following is NOT covered in the course?
A navigation techniques using the stars
B navigation techniques that rely on technology
C terminology for understanding nautical charts
D repairing navigation tools like radar and GPS
- 3 What does the course's final exam cover?
A calculating knots per hour C practical navigation skills
B charting terminology D navigational history

Vocabulary

3 Fill in the blanks with the correct words: *GPS, LOP, fix, range, minutes, seconds, chart, plot, knot.*

- 1 Nautical degrees are divided into 60 units called _____.
- 2 Sixty _____ make up a single unit of a nautical degree.
- 3 A(n) _____ indicates how many nautical miles you are traveling each hour.
- 4 You can _____ a course using technological or more traditional methods.
- 5 Many ships now use _____ technology to verify their exact location.
- 6 The captain drew a(n) _____ between the ship and the island to help determine our position.
- 7 You can determine a ship's _____, or its exact location, using several techniques.
- 8 The _____ between our ship and that lighthouse decreases as we approach it.
- 9 A good _____ includes a variety of information, including lines of longitude and latitude.

4 Read the sentence pairs. Choose which word or phrase best fits each blank.

1 celestial navigation / electronic navigation

- A _____ depends on the use of modern technology.
B People have used _____ since very early in human history.

2 latitude / longitude

- A The horizontal lines on the map indicate _____.
B The vertical lines on the map indicate _____.

3 radio beacons / radar

- A Many ships use _____, sending out radio waves to determine their speed.
B _____ broadcast from a stationary location.

4 position / degrees

- A The location of the shore will help us determine our exact _____.
B We are at 10 _____ latitude, about 600 nautical miles from the equator.

5 nautical miles / bearing

- A We need to know how far we've traveled in _____.
B We need to calculate our _____ in relation to the approaching ship.

5 Listen and read the course description again. What are some terms that have special meanings when used in navigation?

Listening

6 Listen to a conversation between a student and an instructor. Mark the following statements as true (T) or false (F).

- ___ The man needs help with an exam problem.
- ___ The man mixes up latitude and longitude.
- ___ The woman explains how to use GPS for navigation.

7 Listen again and complete the conversation.

Student: I'm having 1 _____ reading this chart.

Instructor: What 2 _____ the problem?

Student: I think I understand latitude and longitude, but I'm not 3 _____ degrees.

Instructor: Degrees indicate 4 _____ from the equator or from the prime meridian.

Student: And then minutes and seconds describe 5 _____ it takes to go from one degree to the next?

Instructor: No, that's not quite right. "Minutes" and "seconds" mean something different in nautical terms. They aren't the same as ordinary minutes and seconds.

Student: What do you mean?

Instructor: A nautical minute measures distance. Sixty minutes 6 _____ one degree.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

I'm having trouble ...

What seems to be ... ? / No, that's not ...

Student A: You are a student. Talk to Student B about:

- a problem you are having
- a difficult navigational term
- clarifying his or her statements

Student B: You are an instructor. Talk to Student A about his or her difficulty with a concept.

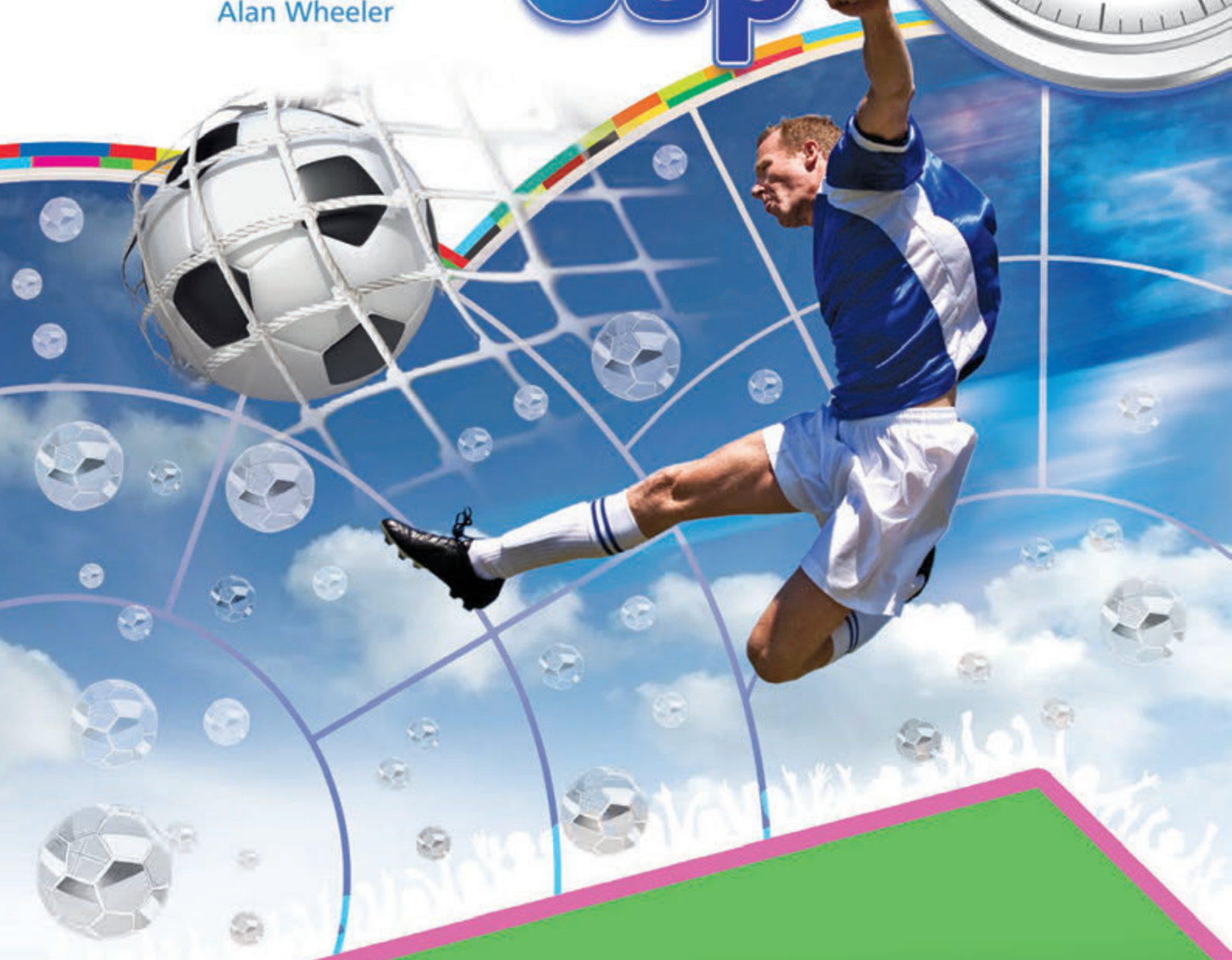
Writing

9 Use the course description and the conversation from Task 8 to write a course evaluation. Include: a description of the subjects covered in the course and which subjects you found most or least interesting or challenging.

**CAREER
PATHS**

WORLD Cup

Virginia Evans
Jenny Dooley
Alan Wheeler



Express Publishing

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Get ready!

1 Before you read the passage, talk about these questions.

- 1 What are some possible dangers at a stadium?
- 2 What can employees do to make a stadium less dangerous?

impede

passageway

escape route

patron

Keep our
Stadium
Safe!

All employees are responsible for making safety a top priority.

Remember the following rules:

- In the event of an **emergency** in your work area, contact your supervisor immediately.
- Do not leave any objects in the **passageways**. This is dangerous because it **impedes** the movement of **patrons** or staff.
- Familiarize yourself with **escape routes** near your assigned work area. Management has **marked** all emergency exits with red signs. In the event of an **evacuation**, help patrons exit the building before you do. Contact your supervisor immediately after you exit.
- Follow all **fire prevention** guidelines for your work area. Also, know the location of the nearest **fire extinguisher**. Notify maintenance crew members of any expired extinguishers. They will replace them immediately.
- If you work with dangerous chemicals, **secure** them after use.

If you have any questions, please contact your supervisor.

secure

fire extinguisher

Reading

2 Read the poster. Then, mark the following statements as true (T) or false (F).

- 1 ___ It is the responsibility of employees to mark the building's exits.
- 2 ___ Employees must contact supervisors before leaving in an emergency.
- 3 ___ Maintenance crew members replace expired fire extinguishers.

Vocabulary

3 Fill in the blanks with the correct words or phrases from the word bank.

Word BANK

escape route evacuation mark
fire extinguisher fire prevention
secure

- 1 The stadium has a safe where VIPs can _____ their valuables.
- 2 We followed the _____ to get out of the burning building.
- 3 It is a good idea to have a _____ in a food preparation area.
- 4 Please _____ the supplies that we need to order.
- 5 Managers instruct the new employees in proper _____ habits.
- 6 The _____ of the building was quick and orderly.

4 Write a word that is similar in meaning to the underlined part.

- 1 The lights will turn on if there is a dangerous situation. _ _ _ r _ _ n _ _
- 2 Any boxes in the passageways could slow the flow of fans' evacuation. _ m _ _ d _ _
- 3 Employees should treat all customers with respect. _ _ t _ _ n s
- 4 Safety is a thing of importance for stadium managers. _ _ i _ _ _ t _ _
- 5 Please clean up properly to keep the room free of danger. _ a _ _ _
- 6 Walk down the hall until you come to the green door. _ _ s _ _ g _ _ _ _ _

- 5 🎧 Listen and read the poster again. In the event of an evacuation, what should employees do?

Listening

- 6 🎧 Listen to a conversation between a manager and an employee. Read the announcement. Choose the correct answers.

- 1 Why is the manager speaking with the employee?
 A to inform her of a new rule
 B to applaud her hard work
 C to warn her about a faulty extinguisher
 D to scold her for a mistake
- 2 Why is the employee likely to do next?
 A remove the boxes
 B review the safety regulations
 C examine the fire extinguishers
 D write herself up

- 7 🎧 Listen again and complete the conversation.

Manager: Jenny, I need to 1 _____ about something.

Employee: 2 _____ is it Mr. Ferguson?

Manager: You left some 3 _____ in the passageway near the concession stand. It's a good thing I noticed before the patrons arrived.

Employee: Oh, I'm really sorry about that Mr. Ferguson. I guess I was just 4 _____.

Manager: Busy or not, you 5 _____ our safety regulations.

Employee: Uh, oh. I didn't realize that.

Manager: Don't leave boxes in the hallway again, otherwise I will have to 6 _____.

Employee: I definitely don't want that to happen.

Speaking

- 8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

I need to speak ...
Don't ... , otherwise ...
Next time, be more careful.

Student A: You are a manager. Talk to Student B about:

- a safety mistake he or she made
- the possible consequences
- what he or she needs to do next time

Student B: You are an employee. Talk to Student A about what you did incorrectly and what you will do next time.

Writing

- 9 Use the conversation from Task 8 to write a safety violation report.

Safety Violation Report

Supervisor's name: _____

Employee's name: _____

Describe the violation: _____

Risk posed by the violation: _____

How was the violations handled? [check (✓) one]

verbal warning

formal write up

**CAREER
PATHS**

Virginia Evans
Jenny Dooley
Joshua Kern

MECHANICAL ENGINEERING



Express Publishing

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Get ready!

1 Before you read the passage, talk about these questions.

- 1 What are couplings used for?
- 2 What are some different types of couplings?

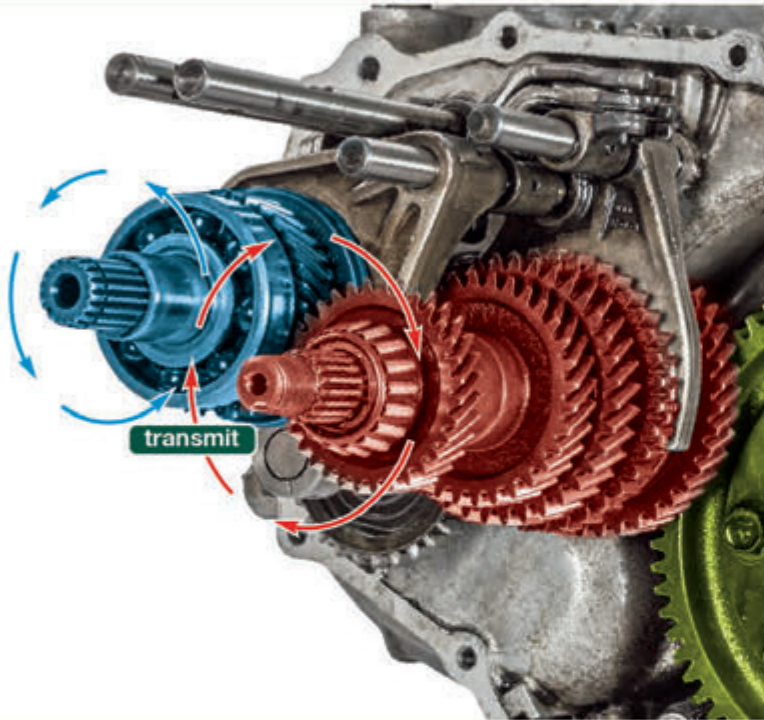
beam coupling



rigid coupling



output shaft



6.5 Couplings

Why do we use couplings?

Couplings **transmit** power from one shaft to another. The **input shaft** connects to the power source. The **output shaft** connects to the destination. There are two primary types of couplings.

Rigid couplings **align** the shafts with each other. Perfect alignment reduces wear on the machine. Rigid couplings maximize performance and efficiency. **Sleeve-style couplings** are the most common rigid coupling.

Sometimes the shafts do not meet perfectly. **Flexible couplings** transmit power without perfect alignment. **Beam couplings** are cut in a spiral shape. These can accommodate several degrees of shaft **offset**. Flexible couplings help reduce noise and unwanted vibrations.



sleeve-style coupling



offset

Vocabulary

3 Match the words or phrases (1-7) with the definitions (A-G).

- | | |
|--------------------|----------------------------|
| 1 __ offset | 5 __ input shaft |
| 2 __ coupling | 6 __ output shaft |
| 3 __ transmit | 7 __ sleeve-style coupling |
| 4 __ beam coupling | |

- A to move something from one place to another
 B a machine part that sends power to its destination
 C a machine part that receives power from the power source
 D a rigid connector that holds parts together within a metal tube
 E the state of being out of alignment
 F a piece of hardware that connects two machine parts together
 G a flexible connector cut from one solid piece of material

Reading

2 Read the textbook excerpt. Then, mark the following statements as true (T) or false (F).

- 1 __ The input shaft transmits power towards the power source.
- 2 __ Sleeve-style couplings can reduce wear on a machine.
- 3 __ Flexible couplings allow for slight misalignment.

4 Read the sentence pairs. Choose the sentence that uses the underlined part correctly.

- 1 A A rigid object cannot bend or change shape.
B To transmit energy is to receive it.
- 2 A A coupling is used to separate two or more shafts.
B A flexible coupling allows for misalignment.
- 3 A Offset is the state of being perfectly in line.
B To align two objects is to bring them in line with each other.

5 Listen and read the textbook excerpt again. What are the benefits of flexible couplings?

Listening

6 Listen to a conversation between two engineers. Choose the correct answers.

- 1 What is the conversation mostly about?
 - A how to install a beam coupling
 - B a defective sleeve-style coupling
 - C the best type of coupling for a design
 - D the use of couplings to reduce vibrations
- 2 Why does the woman suggest a particular coupling?
 - A to prevent the connection from breaking
 - B to minimize noise during operations
 - C to avoid offset between the shafts
 - D to reduce wear on the machine

7 Listen again and complete the conversation.

Engineer 1: David, I noticed a problem with your design. This 1 _____ won't work.

Engineer 2: What's wrong, Kathy?

Engineer 1: The input and 2 _____ aren't in alignment.

Engineer 2: You're right. It looks like there's a little bit of 3 _____.

Engineer 1: Yeah. It means we can't use a rigid coupling. 4 _____.

Engineer 2: Oh, you're right. We'll have to use a 5 _____ coupling instead. What do you recommend?

Engineer 1: I think a 6 _____ would work best.

Engineer 2: I agree. We'll use that.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

I noticed ...
It looks like we need ...
I think ... would work best.

Student A: You are an engineer. Talk to Student B about:

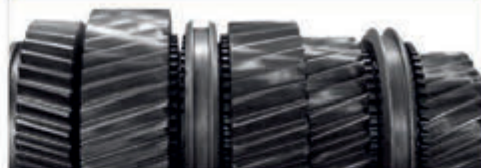
- a problem with a design
- why a coupling will not work
- which coupling will work better

Student B: You are an engineer. Talk to Student A about a problem with a design.

Writing

9 Use the textbook excerpt and the conversation from Task 8 to fill out the progress report.

HAMDEN INDUSTRIES



Project Progress Report

Project #: 981b

List changes to the project: _____

Reason for changes: _____

**CAREER
PATHS**

Virginia Evans
Jenny Dooley
Carlos Rosencrans PhD



AGRICULTURAL ENGINEERING



Express Publishing

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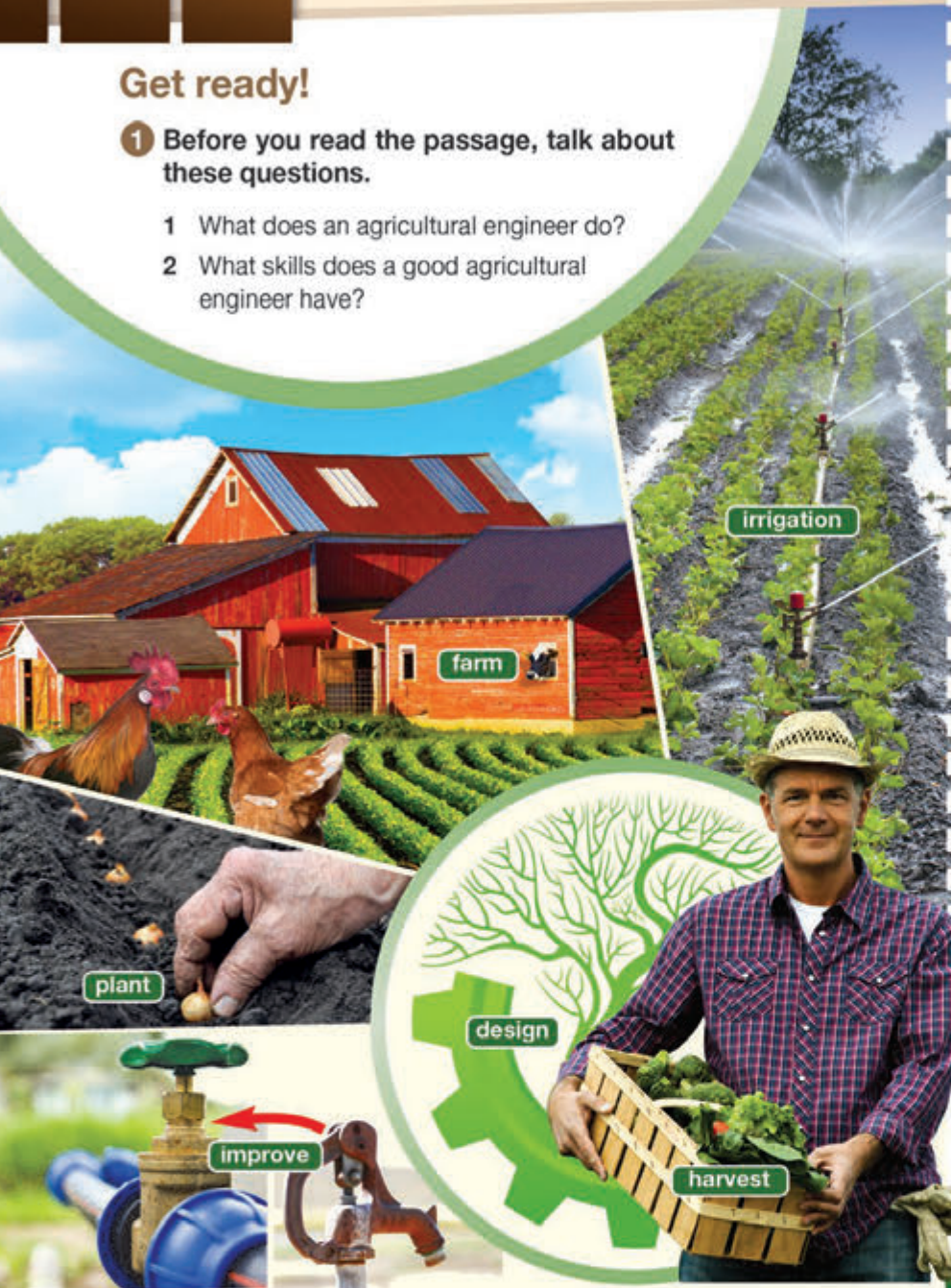
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Get ready!

1 Before you read the passage, talk about these questions.

- 1 What does an agricultural engineer do?
- 2 What skills does a good agricultural engineer have?



Reading

2 Read the newspaper article. Then, choose the correct answers.

- 1 What is the main idea of the article?
 - A job openings for agricultural engineers
 - advice on becoming an agricultural engineer
 - responsibilities of agricultural engineers
 - recruitment for educational programs in agricultural engineering
- 2 Which of the following is NOT a duty of an agricultural engineer?
 - harvesting crops
 - assessing irrigation
 - designing machinery
 - evaluating waste systems
- 3 According to the article, what is the main focus of agricultural engineers?
 - repairing farm machinery
 - increasing farms' profitability
 - inventing new farm products
 - helping farmers better use their resources

Vocabulary

3 Match the words (1-6) with the definitions (A-F).

- | | |
|--------------|--------------|
| 1 __ assess | 4 __ produce |
| 2 __ farm | 5 __ design |
| 3 __ improve | 6 __ plant |

- A to make something better
- B to plan out something
- C to examine something closely and make a decision
- D to create or make something
- E to place something in the ground so it will grow
- F to care for plants and animals as an occupation

AGRICULTURAL ENGINEERS: Unsung Heroes

By Geoffrey Goodwin

Agriculture is important to us all. Many people work in this field. They're not all farmers, either. Agricultural engineers are important, but not well-known. They help people **farm** better by **producing** more food. Any time a farmer **plants** or **harvests**, an engineer is involved. Agricultural engineers do many different things. But their most important goal is

helping farmers use resources effectively. To this end, some **design** equipment or buildings. They may work with machinery. Others **assess** and **improve** **irrigation** systems. Land and water management are big concerns. Still others **evaluate** existing waste management systems. This includes animal waste and fertilizer runoff.


4 Read the sentence pairs. Choose which word best fits each blank.

1 evaluate / harvest


- A When the crops are ready, he will _____ them.
- B The farmer needs someone to _____ his current waste system.

2 agriculture / irrigation


- A The farmer works in the field of _____.
- B Designing a better _____ system can improve water conservation.

5  Listen and read the newspaper article again. What are some things that agricultural engineers design?

Listening

6  Listen to a conversation between a reporter and an agricultural engineer. Mark the following statements as true (T) or false (F).

- 1 ___ The man is working on an irrigation system.
- 2 ___ The project will help increase absorption.
- 3 ___ The man will be done by the end of the month.

7  Listen again and complete the conversation.

Reporter: Wonderful. So, what are you **1** _____ now?

Engineer: I'm currently designing a new **2** _____ system.

Reporter: What can **3** _____ about that?

Engineer: It's designed to reduce **4** _____ . It'll also increase absorption.

Reporter: When will it **5** _____ ?

Engineer: Hopefully we'll be done **6** _____ of this year.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

What can you tell us about your work?
What are you working on now?
When will it be finished?

Student A: You are a reporter. Talk to Student B about:

- his or her occupation
- his or her current project
- when it will be completed

Student B: You are an engineer. Talk to Student A about your occupation.

Writing

9 Use the conversation from Task 8 to fill out the reporter's notes.

SUNSHINE VALLEY PAPER: Interview Notes

Date: 10/05

Name of Subject: _____

Occupation: _____

Current project and goal: _____

Expected completion date: _____

**CAREER
PATHS**

Virginia Evans
Jenny Dooley
Vishal Nawathe



COMPUTER ENGINEERING



Express Publishing

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Get ready!

- 1 Before you read the passage, talk about these questions.
- 1 What units of measurement do people use in your country?
 - 2 What advantages does the metric system have compared to the imperial system?

Imperial VS Metric UNITS

CONVERSION CHART

Don't know the difference between a pound and a kilogram? This chart will help you figure it out!



IMPERIAL UNITS 1 pound = 0.453 kilos



METRIC UNITS 1 kilo = 2.205 pounds

Measurements of Temperature

Use the following formula to convert **degrees** in **Fahrenheit** (°F) to **Celsius** (°C): $^{\circ}\text{C} = (^{\circ}\text{F} - 32) \times \frac{5}{9}$

Measurements of Weight

1 **pound** = .45 **kilograms**
1 **ounce** = 28.35 **grams**

Measurements of Length

1 **inch** = 2.54 **centimeters**

To **convert** a measurement from imperial units to the metric system, just multiply.
5 inches to centimeters: $5 \times 2.54 = 12.7$ centimeters.

To convert a measurement from metric units to imperial units, just divide.
12 kilograms to pounds: $12 \div .45 = 26.67$ pounds.

Reading

- 2 Read the conversion chart. Then, mark the following statements as true (T) or false (F).
- 1 A two-pound object is heavier than a two-kilogram object.
 - 2 A gram of matter is equal to several ounces.
 - 3 To calculate inches, someone can divide a number of centimeters by 2.54.

Vocabulary

- 3 Match the words (1-7) with the definitions (A-G).

- | | |
|-------------------------------------|---------------------------------------|
| 1 <input type="checkbox"/> ounce | 5 <input type="checkbox"/> kilogram |
| 2 <input type="checkbox"/> metric | 6 <input type="checkbox"/> centimeter |
| 3 <input type="checkbox"/> Celsius | 7 <input type="checkbox"/> Fahrenheit |
| 4 <input type="checkbox"/> imperial | |

- A a system of measurement based on meters and grams
B a temperature system in which water boils at 212 degrees
C a temperature system in which water freezes at zero degrees
D a system of measurement based on feet and pounds
E a unit equal to one sixteenth of a pound
F a unit equal to one hundredth of a meter
G a unit equal to one thousand grams

4 Read the sentence pair. Choose where the words best fit the blanks.

1 inch / pound

- A The sandwich weighed almost a(n) _____.
- B The coin is about a(n) _____ inch in diameter.

2 gram / degree

- A The paperclip weighed about one _____.
- B The temperature cooled one _____ over ten minutes.

5 Listen and read the conversion chart again. How can someone convert grams into ounces?

Listening

6 Listen to a conversation between two engineers. Choose the correct answers.

- 1 What is the conversation mostly about?
 - A why the woman prefers the metric system
 - B an error while making a measurement conversion
 - C the challenges of working with the imperial system
 - D the conversion rate for units of length
- 2 According to the woman, why should the man show measurements in both systems?
 - A It will make further conversions easier.
 - B Everyone will be able to read the measurements.
 - C Engineers tend to use both measurement systems.
 - D Other products include both types of measurements.

7 Listen again and complete the conversation.

Engineer 1: How should I list 1 _____ this hardware component?

Engineer 2: You should probably list them in both metric 2 _____ units.

Engineer 1: So, centimeters 3 _____, right?

Engineer 2: Yeah. That way, everyone will be able to read them.

Engineer 1: Good idea. Do you know the conversion rates? I always 4 _____.

Engineer 2: I think an inch 5 _____ 2.54 centimeters.

Engineer 1: Okay. This component is eight 6 _____ . Eight times 2.54 equals 20.32 centimeters.

Engineer 2: Yeah, that sounds about right.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

How should I ...?

So if ... it ...?

I think ...

Student A: You are an engineer. Talk to Student B about:

- which system you should use to measure something
- how to convert measurements into the correct units

Student B: You are an engineer. Talk to Student A about conversion rates between measurement units.

Writing

9 Use the conversation from Task 8 to fill out the conversion notes.

Measurements of: Weight

There are _____ in a(n) _____.

Two _____ equals _____.

Measurements of: _____

There are _____ in a(n) _____.

Half of a(n) _____ equals _____.

**CAREER
PATHS**

MBA English

Virginia Evans
Jenny Dooley
Anna Burkhardt MBA



Express Publishing

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10 Departments

Get ready!

- Before you read the passage, talk about these questions.
 - What are the different departments in a business organization?
 - How are some departments related to each other?

Reading

- Read the company handbook. Then, choose the correct answers.
 - What is the purpose of the excerpt?
 - to explain the responsibilities of each division
 - to explain the responsibilities of each department
 - to describe the purpose of divisions
 - to outline why most divisions do not need IT
 - Which of the following is NOT responsible for product management?
 - marketing
 - production
 - sales
 - human resources
 - Why does each division have its own departments?
 - to better record all monetary exchanges
 - to more effectively manage complaints
 - to guarantee efficiency and fair shares of labor
 - to ensure the proper management of records

The Hanwell Group
COMPANY'S HANDBOOK

Departments

The Hanwell Group hires employees in three **divisions**. They include Software/Technology, Home Entertainment, and Appliances. Each division includes its own group of **departments**. They exist to ensure efficiency and fair labor division. Only Software/Technology has an **IT** department. All divisions include the following departments:

- Production:** Responsible for making products according to plans.
- Marketing:** Responsible for advertising and promoting products. This includes all forms of public media.
- Sales:** Responsible for selling products to customers.
- Accounting/Finance:** Responsible for managing funds and recording all monetary exchanges.
- Human Resources:** Responsible for the training and management of employees. Human resources **personnel** also handle conflicts and complaints.

Vocabulary

- Fill in the blanks with the correct words or phrases from the word bank.

Word BANK

personnel
 IT
 department
 production
division
 human resources

- Haverford Industries reduced its _____ from 10,000 to 8,000 members.
- Jennifer called _____ to find out why her computer was not working.
- It is not unusual for employees to move from one _____ to another.
- After three years in the Printing _____, Sam now works in Handheld Devices.
- Ian called _____ to make a complaint against his supervisor.
- Some companies are criticized for sending _____ to overseas factories.

4 Read the sentence pairs. Choose which word best fits each blank.

1 sales / marketing

A The cosmetics company increased its _____ budget.

B Deandra's outgoing personality led her to work in _____.

2 finance / accounting

A Carol was promoted to manager of the _____ department.

B Jay is an expert in global _____.

5 Listen and read the company handbook again. What are the responsibilities of personnel in the sales and marketing departments?

Listening

6 Listen to a conversation between two students. Mark the following statements as true (T) or false (F).

1 ___ The woman would like to work in sales more than marketing.

2 ___ The man wants to work in the Home Entertainment division.

3 ___ Both speakers are expecting phone calls.

7 Listen again and complete the conversation.

Student 1: Now that you've been interviewed, which 1 _____ do you think you'll work in?

Student 2: I'm not sure. I applied to work in 2 _____.

Student 1: Do you have a preference?

Student 2: 3 _____.

Student 1: I would, too. 4 _____ requires too much travel.

Student 2: Which position are you applying for?

Student 1: I applied to work in 5 _____ for Home Entertainment.

Student 2: That's a pretty competitive 6 _____. Well, I wish you the best of luck with that. I need to get back home and wait for a phone call.

Student 1: Me too. Good luck!

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

Which department do you think you'll ...?

I applied to work in ...

I need to get back home and ...

Student A: You are a student. Talk to Student B about:

- company departments
- company divisions
- work preferences

Student B: You are a student. Talk to Student A about the company department(s) you applied to for employment.

Writing

9 Use the company handbook and the conversation from Task 8 to complete the message from the employer to the prospective employee.

Message _____

Message: Hello, this is _____, Director of _____. We interviewed yesterday. I was _____ with your _____. I am calling to _____ in our _____

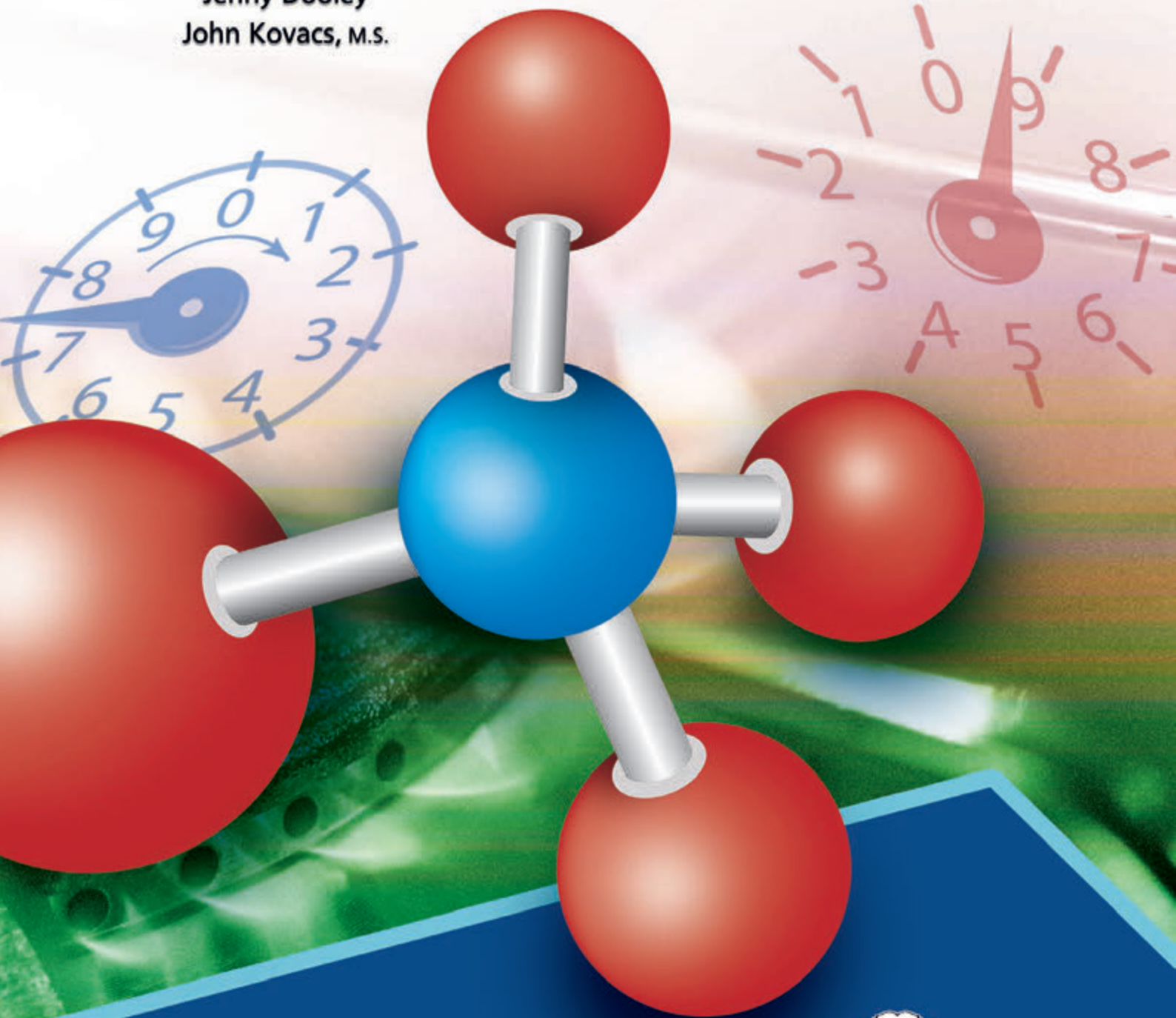
department in the _____ division. Please call me back as soon as possible. Thank you.

**CAREER
PATHS**



Natural Gas I

Virginia Evans
Jenny Dooley
John Kovacs, M.S.



Express Publishing

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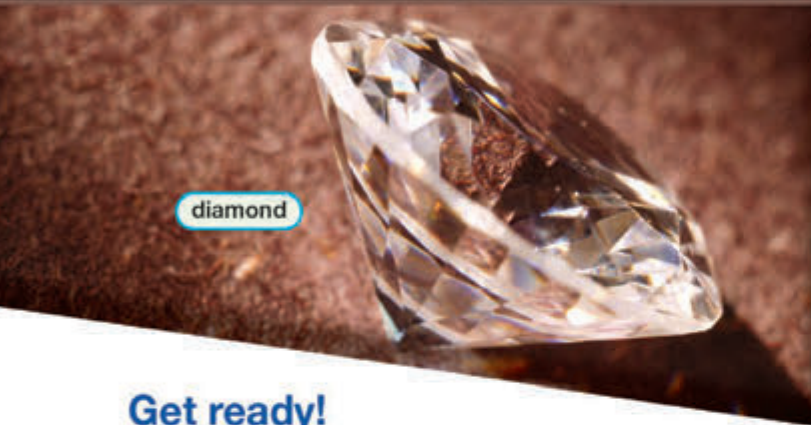
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CHOOSING THE RIGHT BIT FOR THE JOB

By Edward Hale



tungsten carbide



diamond

Get ready!

1 Before you read the passage, talk about these questions.

- 1 What kinds of materials can be used to make drill bits?
- 2 What are some problems that drillers run into if they use the wrong bit?

Reading

2 Read the trade magazine article. Then, complete the table.

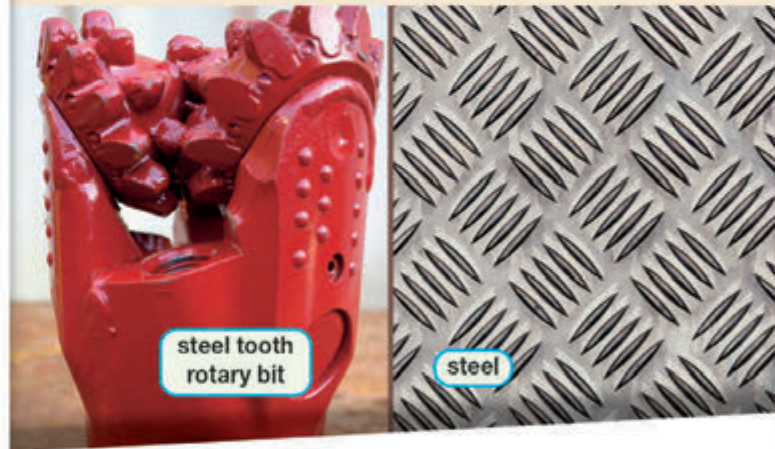
| Type of Drill Bit | Functions and Characteristics |
|-------------------------------------|-------------------------------|
| Steel tooth bit | _____ |
| Polycrystalline diamond compact bit | _____ |
| Mill bit | _____ |
| Core bit | _____ |
| Fishtail bit | _____ |

Drill bits are essential for natural gas drilling operations. However, choosing the wrong one leads to trouble. **Steel tooth rotary bits** are the most commonly used. These bits have three **cones** that **rotate** along a **tip**. They drill easily through rock and soil. However, drillers also often use bits that are **hybrids**. They never really know what they'll encounter below surfaces. Sometimes, **steel** just can't cut it, so they need bits made of extra materials.

For the toughest rock, drillers use **polycrystalline diamond compact bits**. These **insert bits**, made of **diamonds** and **tungsten carbide**, are good for offshore drilling. Diamonds in compact bits are usually **synthetic**, but just as sturdy as real ones.

Mill bits and **core bits** are great underwater. Mill bits cut into metal pipes. Core bits are especially unique. With their bullet-like shapes and **rigid teeth**, they're used wet or dry.

Fishtail bits are the last essentials. They're used to scoop up softer materials like sand.



steel tooth rotary bit

steel

3 Match the words (1-6) with the definitions (A-F).

- | | |
|-------------|-----------------------|
| 1 __ steel | 4 __ diamond |
| 2 __ rotate | 5 __ synthetic |
| 3 __ hybrid | 6 __ tungsten carbide |

- A a gray powder used to make tools and jewelry
 B to turn along a point
 C a material made of iron and carbon
 D an instrument made of two parts
 E a mineral made of crystallized carbon
 F a chemically-produced material used to replace another

- 4 Place the words and phrases in the correct box: *tip, insert, teeth, cone, core, steel tooth rotary, mill, fishtail, polycrystalline diamond compact.*

| | |
|---------------------|-------|
| Types of drill bits | _____ |
| Types of drill bits | _____ |
| Types of drill bits | _____ |
| Types of drill bits | _____ |
| Types of drill bits | _____ |
| Drill bit parts | _____ |
| Drill bit parts | _____ |
| Drill bit parts | _____ |
| Drill bit parts | _____ |

- 5 Listen and read the trade magazine article again. Why do drillers need hybrid drill bits?

Listening

- 6 Listen to a conversation between a worker and a supervisor. Choose the correct answers.

- What is the conversation mainly about?
 - whether core bits are better than mill bits
 - which drill bit to use for tough rock layers
 - whether tungsten carbide bits are harder than diamond bits
 - whether steel is stronger than tungsten carbide
- Which drill bits does the woman confuse?
 - steel bits and tungsten carbide bits
 - steel bits and diamond-tipped bits
 - mill bits and core bits
 - tungsten carbide bits and diamond-tipped bits

- 7 Listen again and complete the conversation.

Supervisor: If you're digging through especially deep and hard rock layers, you need something with a 1 _____.

Worker: I thought that a 2 _____ would work just fine.

Supervisor: I'd try something much harder.

Worker: How about a 3 _____?

Supervisor: 4 _____? Not in this instance.

Worker: Sorry, 5 _____ "diamond-tipped" I always confuse those two.

Supervisor: A diamond bit definitely helps. But if you hit water, switch to a 6 _____.

Speaking

- 8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

I'm trying to ...
... are a little stronger than ...
If you hit water, switch to ...

Student A: You are a worker on a drilling site. Talk to Student B about:

- what problem you are having
- the characteristics of different drill bits
- which drill bit you think you ought to use

Student B: You are a supervisor on a drilling site. Talk to Student A about different types of drill bits.

Writing

- 9 Use the trade magazine article and the conversation from Task 8 to fill out the work log.

Work LOG

Date: _____

Activity: _____

Which drill bits did you use today? _____

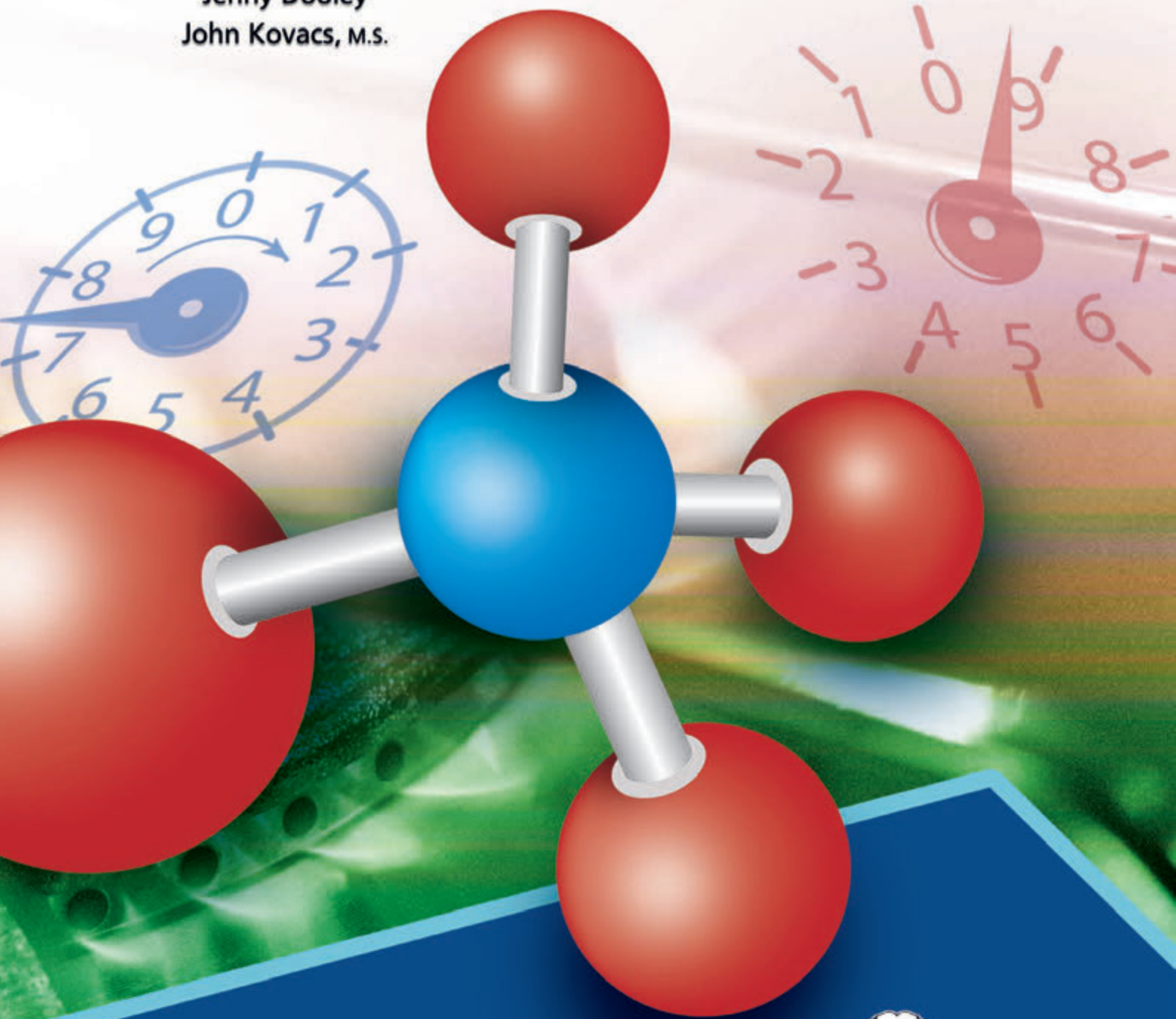
Did you encounter any difficulties? Y/N

**CAREER
PATHS**



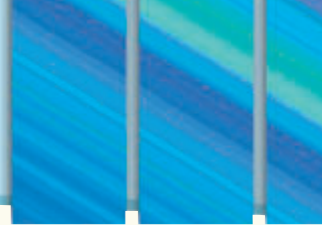
Natural Gas II

Virginia Evans
Jenny Dooley
John Kovacs, M.S.

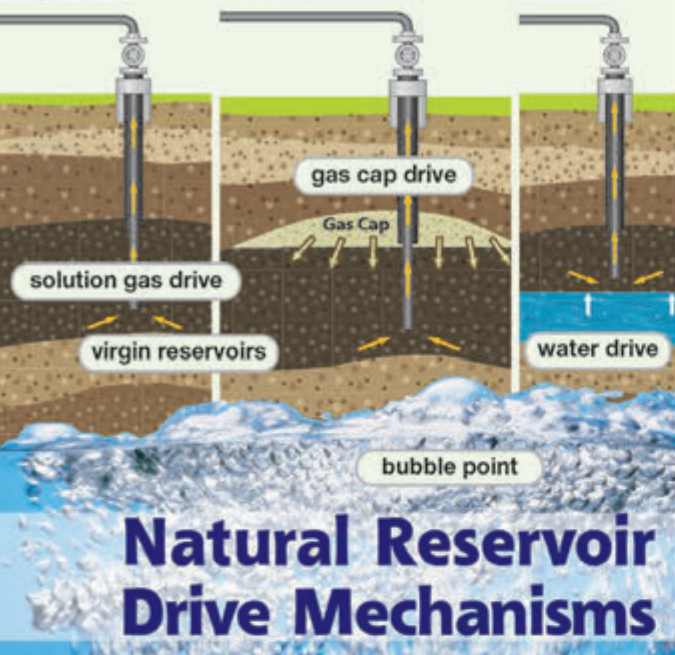


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Natural Reservoir Drive Mechanisms

Before wells and drillers can produce natural gas, nature must do its own work. Nature produces gas with the help of **drive mechanisms**. Drive mechanisms move natural gas from its rocky reservoir into production wells. **Water drives, gas cap drives, and solution gas drives** are three examples. These drive mechanisms operate within natural gas reservoirs.

Water Drive

Water is denser than gas. When gas is produced, the reservoir gas volume decreases. However, water that underlies the gas in aquifers **pushes up** the gas in the reservoir. The water then displaces the gas that is produced.

Gas Cap Drive

When reservoir oil is produced, the gas cap sitting on top of the oil **pushes down**. This causes remaining liquids to stay **compressed**. Natural gas expands in the **gas cap**. When the gas reaches a **pressure point**, its force pushes oil toward production wells. In **virgin reservoirs** and other reservoirs, pressure decreases as more fluid is produced.

Solution Gas Drive

As reservoirs produce liquids, the pressure on the remaining liquids falls below a **bubble point**. When this occurs, a gas cap forms from the bubbling gas. The cap pushes down on remaining liquid to **maintain** pressure.

Often, natural drive mechanisms fail to produce sufficient pressure. When this occurs, pressure is **sustained** by **artificial** means.

Get ready!

1 Before you read the passage, talk about these questions.

- 1 Where in the earth does natural gas come from?
- 2 How does natural gas reach the earth's surface?

Reading

2 Read the textbook excerpt. Then, choose the correct answers.

- 1 What is the purpose of the excerpt?
 - A to discuss artificial means of creating pressure in a well
 - B to clarify reasons why natural gas expands in gas caps
 - C to define the bubble point of a natural gas reservoir
 - D to explain different mechanisms that push gas to the surface
- 2 How do gas caps form?
 - A They are the result of water in the gas reservoir.
 - B They result from less gas liquid in the reservoir.
 - C They are the result of more gas liquid in the reservoir.
 - D They are the result of refilling aquifers with water.
- 3 Which of the following is NOT true?
 - A gas production reduces the amount of gas in reservoirs
 - B gas production increases the amount of gas in reservoirs
 - C water from aquifers takes the place of gas in reservoirs
 - D water from aquifers pushes reservoir gas upward

Vocabulary

3 Match the words and phrases (1-8) with the definitions (A-H).

- | | |
|--------------------|-------------------------|
| 1 __ gas cap | 5 __ pressure point |
| 2 __ water drive | 6 __ virgin reservoir |
| 3 __ bubble point | 7 __ drive mechanism |
| 4 __ gas cap drive | 8 __ solution gas drive |

- A the use of force by atmospheric elements
- B the energy that forces gas from a reservoir
- C a gas source that loses pressure as more fluids are produced
- D gas that builds up near a reservoir's surface
- E a system in which gas expands in a gas cap and produces energy
- F a system in which water replaces gas within a reservoir
- G the point when heat causes vapor bubbles to form
- H a system in which gas produces the energy that moves fluids

4 Read the sentence pairs. Choose which word or phrase best fits each blank.

1 artificial / compressed

A Gas pressure may be sustained by _____ methods.

B Gas pressure results in _____ liquid in reservoirs.

2 maintain / sustain

A Gas caps _____ pressure in depleted reservoirs.

B The well could no longer _____ enough pressure.

3 push up / push down

A Gas pressure can _____ remaining liquid in gas reservoirs.

B Water from aquifers can _____ remaining gas in reservoirs.

5 Listen and read the textbook excerpt again. How is pressure sustained when natural drive mechanisms fail?

Listening

6 Listen to a conversation between a student and an instructor. Mark the following statements as true (T) or false (F).

1 ___ Water pressure pushes natural gas out of reservoirs.

2 ___ Gas pressure drops in virgin reservoirs.

3 ___ Gas caps form after liquid gas reaches a pressure point.

7 Listen again and complete the conversation.

Student: I don't understand how 1 _____ and gas cap drives work.

Instructor: Is there 2 _____ that you don't understand?

Student: Yes. How does water get into 3 _____?

Instructor: Gas pressure pushes it up. Water comes from an underlying 4 _____.

Student: But wouldn't gas soak it up?

Instructor: No. Water is denser. It'll displace gas.

Student: I see. I think I understand water drives. But I'm still not sure how gas reaches a 5 _____ when there's no remaining liquid in a reservoir.

Instructor: You're confused on the last point. There's still liquid in the reservoir, just less than before. That's why the gas reaches a high pressure point: less liquid produces more pressure. Then, a 6 _____ forms.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

I don't understand how ...

Is there anything in particular that ...?

I'm still not sure how ...

Student A: You are a student. Talk to Student B about:

- what you don't understand about drive mechanisms
- how gas caps are formed
- what you've learned about drive mechanisms

Student B: You are an instructor. Talk to Student A about his or her points of confusion.

Writing

9 Use the textbook excerpt and conversation from Task 8 to write the student's notes on natural reservoir drive mechanisms. Include: details about water drives, gas cap drives, and solution gas drives.



**CAREER
PATHS**

SECURITY Personnel

Nicholas Panagoulakos

Virginia Evans

Jenny Dooley



Express Publishing

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7

Personal Protection

Get ready!

1 Before you read the passage, talk about these questions.

- Who is typically protected by bodyguards in your country?
- What are some of the ways that bodyguards keep clients safe?



bodyguard



crowd



observant

WANTED: PROFESSIONAL BODYGUARD



HSDE Security is now hiring an experienced **bodyguard**. A minimum of three years experience is required.

Skills Required:

All applicants to this position must be naturally **observant**. You CANNOT learn this skill while on the job. You must be reliable and trustworthy. You must be able to follow an **itinerary**. General mathematic and language skills are required. Computer proficiency is preferred.

Job Description:

Your mission is to protect and serve our clients with diligence and excellence. You will work with a skilled **team** of professional bodyguards. You will **escort** clients, often among large **crowds**. The ability to make quick **threat assessments** is vital. You will have only a short time to conduct **visual sweeps** of venues.

An offender may **attack** or **harass** the **principal**. In this case, you will **engage** with the offender. You must take any action necessary to protect the principal.

In some cases, this may involve **unarmed combat**.



escort

team

Vocabulary

3 Match the words or phrases (1-8) with the definitions (A-H).

- ___ unarmed combat
- ___ threat assessment
- ___ visual sweep
- ___ observant
- ___ harass
- ___ engage
- ___ itinerary
- ___ bodyguard



attack

Reading

2 Read the job description. Then, mark the following statements as true (T) or false (F).

- ___ The company will train new bodyguards to be observant.
- ___ The bodyguards will protect large crowds of people.
- ___ If a principal is attacked, bodyguards must engage the offender.

- to use physical force against someone
- a fight without weapons
- a determination of potential threats during an event
- a travel plan
- a quick assessment of visible potential dangers in an area
- to intimidate or bother someone aggressively
- able to notice things around oneself
- a professional who protects another person

4 Read the sentence pairs. Choose which word best fits each blank.

1 escort / attack

- A An offender may _____ the client at any moment.
 B Politicians hire bodyguards to _____ them to important events.

2 crowd / team

- A Performing a visual sweep in a large _____ can be very difficult.
 B A bodyguard must work well within a _____ of professionals.

3 principal / itinerary

- A If a(n) _____ is attacked, the bodyguard must engage the attacker.
 B A bodyguard must adhere to a strict _____.

5 Listen and read the job description again. Which skills must applicants have for the job?

Listening

6 Listen to a conversation between a supervisor and a bodyguard. Mark the following statements as true (T) or false (F).

- 1 ___ The man got good marks on his visual tests.
 2 ___ The woman will have to make constant visual sweeps.
 3 ___ The client has experience of unarmed combat.

7 Listen again and complete the conversation.

Bodyguard: I do. I'm 1 _____.

Supervisor: You will have to make constant 2 _____ during the job.

Bodyguard: I 3 _____.

Supervisor: Good. Tell me how you would carry out a 4 _____.

Bodyguard: First, I would check the crowd for 5 _____.
 And I would look for places where someone might hide.

Supervisor: That's good. What if your 6 _____?

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

- You'll be doing ...*
What about ...?
I'm prepared to ...

Student A: You are a supervisor. Talk to Student B about:

- preparing for his or her first day of work
- recommendations for a new bodyguard
- protecting a client

Student B: You are a bodyguard. Talk to Student A about preparing for the first day of work.

Writing

9 Use the conversation from Task 8 to fill out the email.

From: J.S.
To: Supervisor Arlington

Mr. Arlington,
 I wanted to thank you for all your help during my training.
 I am excited to begin work as a bodyguard because _____

 I feel very prepared for _____

 I think I could use some improvement in _____

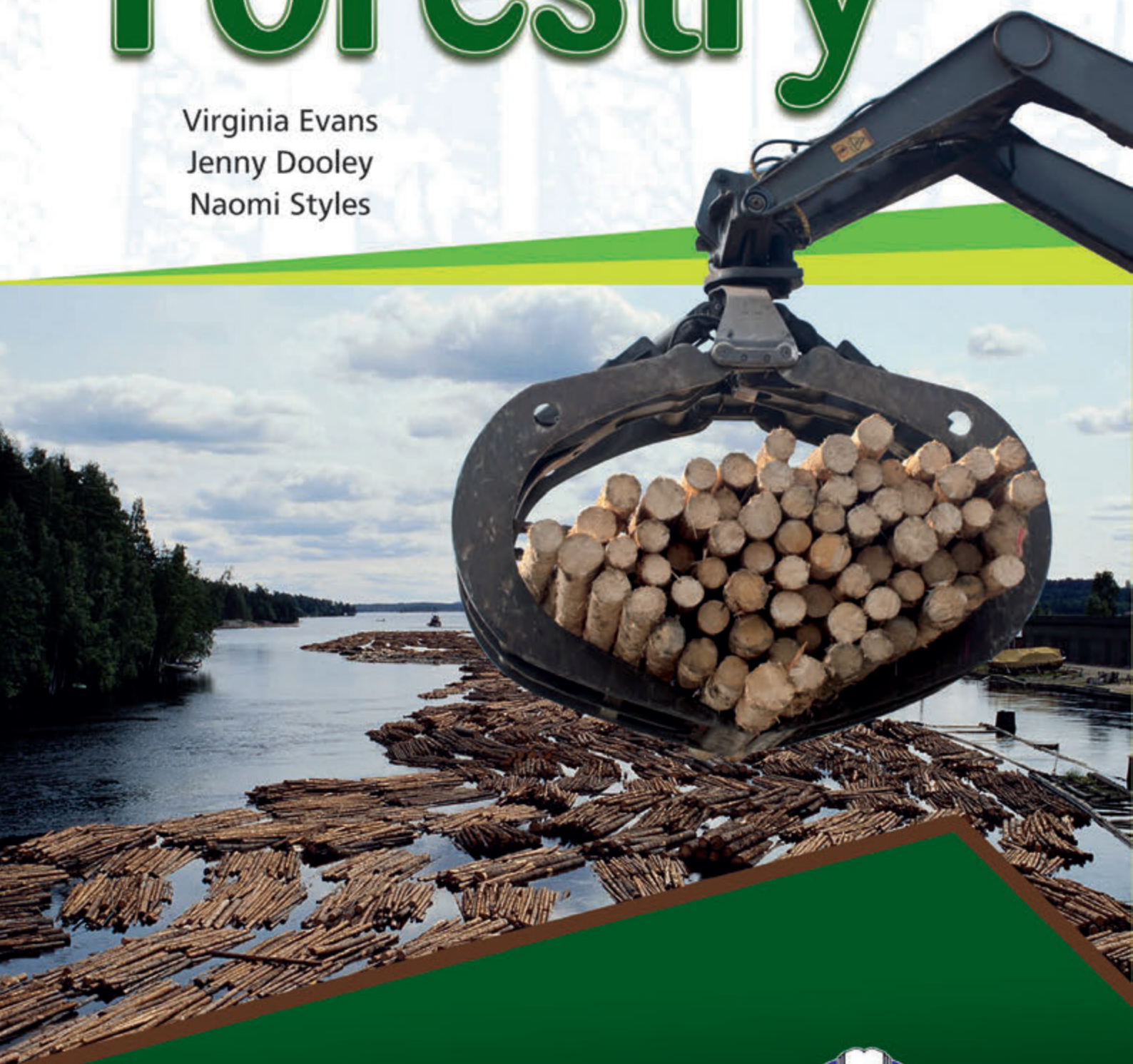
Sincerely,
 J.S.

**CAREER
PATHS**

NATURAL RESOURCES I

Forestry

Virginia Evans
Jenny Dooley
Naomi Styles



Express Publishing

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Get ready!

1 Before you read the passage, talk about these questions.

- 1 What do people in the forestry field do?
- 2 What are forest resources used for?



What is Forestry?

State University has one of the nation's best forestry programs. Forestry involves all aspects of **forest** management. When we **manage** forests, we **create** a healthy environment.

We teach students to **conserve** forested lands. We consider forests to be our country's strongest **resource**. Trees reduce carbon dioxide in the environment. They provide **wood** for heating and **timber** for building. Additionally, forests provide a habitat for animals and birds. Properly managed forests are an invaluable renewable resource.

State University's forestry program provides hands-on **logging** industry experience. You'll work with industry experts to develop best practices. You'll also develop strategies to **protect** this resource.

Reading

2 Read the excerpt. Then, choose the correct answers.

- 1 What is the main idea of the excerpt?
 - A the definition of a healthy environment
 - B how to provide the best wildlife habitat
 - C different aspects in the field of forestry
 - D protecting our natural resources
- 2 Which of the following is NOT mentioned in the above passage?
 - A land conservation
 - B forest management
 - C healthy environment
 - D endangered animals
- 3 How does the forestry program work with the logging industry?
 - A providing wood for heating
 - B working together to develop best practices
 - C providing timber for building
 - D reducing carbon dioxide in the environment

Vocabulary

3 Match the words (1-6) with the definitions (A-F).

- | | |
|---------------|---------------|
| 1 __ conserve | 4 __ forestry |
| 2 __ forest | 5 __ timber |
| 3 __ logging | 6 __ manage |

- A wood that can be used as a building material
- B the field of study concerned with care and management of forests
- C an area of land densely covered with trees, plants, and underbrush
- D to be in charge of the ways in which something is handled
- E to protect something from harm or overuse
- F the business of harvesting, managing and transporting trees




4 Read the sentence pairs. Choose which word or phrase best fits each blank.

1 wood / resource


- A** The family heated their home with _____ harvested in the nearby forest.
- B** The students learned that a forest is a valuable _____ that must be properly managed.

2 create / protect


- A** Paul worked with industry experts to _____ local forests from excessive logging.
- B** The forestry student worked hard to _____ a resource management plan.

5  Listen and read the excerpt again. Why are forests a resource?

Listening

6  Listen to a conversation between a student and an advisor. Mark the following statements as true (T) or false (F).

- 1 ___ The woman is interested in conservation.
- 2 ___ The man grew up in the north.
- 3 ___ The man thinks that the woman should study forestry.

7  Listen again and complete the conversation.

- Student:** I think so. I am interested in **1** _____.
- Advisor:** Do you think that you would like working with the logging **2** _____?
- Student:** Yes. My family is **3** _____.
- Advisor:** That's great. So you grew up near a **4** _____?
- Student:** I did. We lived up north.
- Advisor:** It sounds like **5** _____ is right for you.
- Student:** Yes. I am very concerned about protecting this **6** _____.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

- I'm interested in ...*
- Do you think that you would like ...?*
- I'm very concerned about ...*

Student A: You are an advisor in the forestry program. Talk to Student B about:

- whether forestry is right for him or her
- whether he or she would like working with the logging industry
- His or her personal connection to forestry

Student B: You are a student. Talk to Student A about your interest in forestry.

Writing

9 Use the conversation from Task 8 to fill out a recommendation form.

Advisor Recommendation

This student shows a great interest in the _____ program.

She is particularly interested in _____ and resource management.

She has family members who work in the _____.

I believe that forestry is _____.

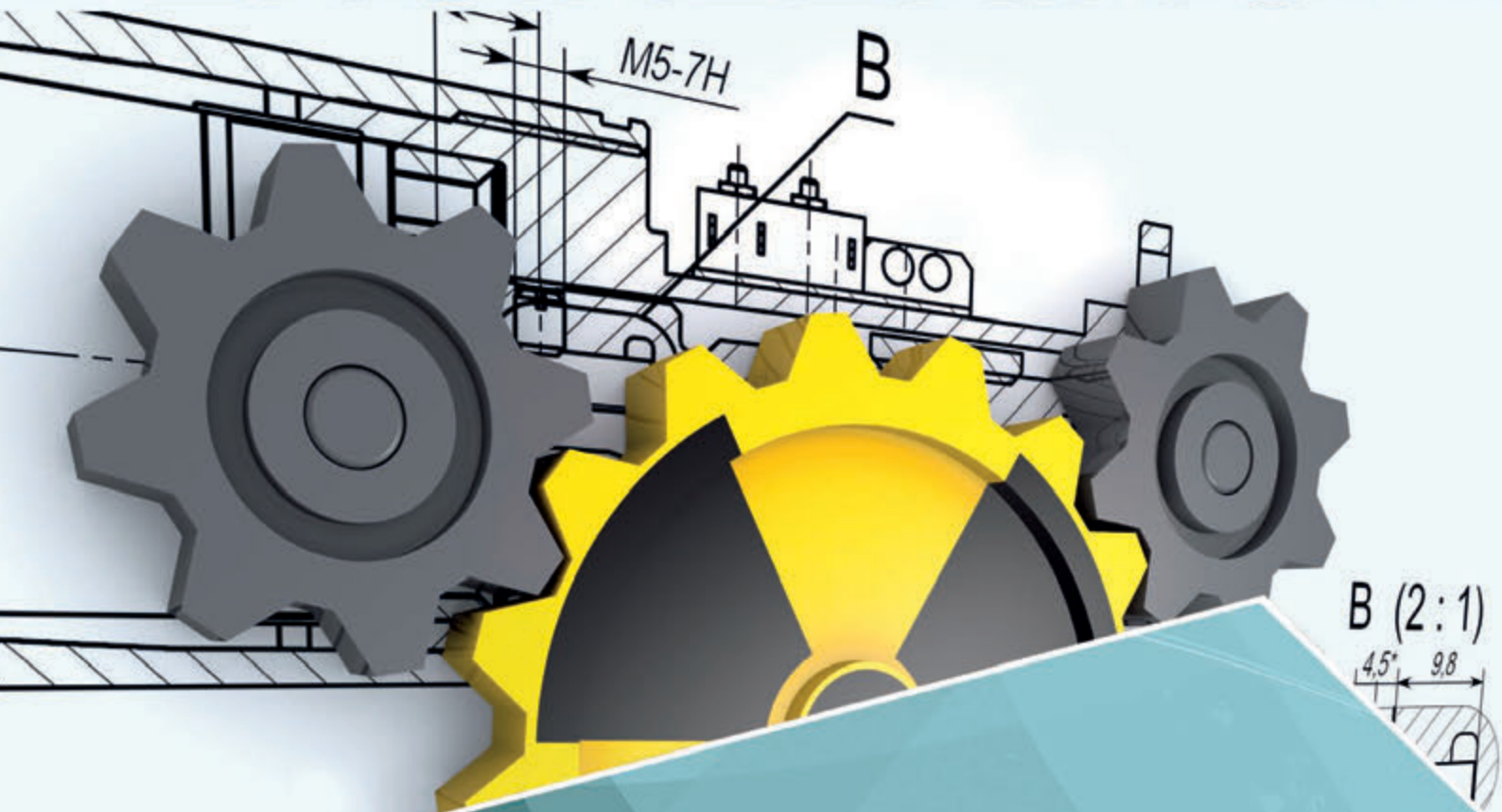
I wholeheartedly recommend her for acceptance in the _____.



**CAREER
PATHS**

Virginia Evans
Jenny Dooley
Anil Prinja, PhD

NUCLEAR ENGINEERING



Express Publishing

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HOME

ABOUT US

SERVICES

CONTACT

Get ready!

1 Before you read the passage, talk about these questions.

- 1 What do undergraduate students in Nuclear Engineering study?
- 2 What are some different types of postgraduate education?



radiochemistry



bachelor's degree



nuclear engineering



computer science



North Lake University

Nuclear Engineering

Our Nuclear Engineering department offers students strong instruction and an intense laboratory experience. Our top-rated **undergraduate** and **postgraduate** programs are run by talented instructors. Many of them are recipients of national and international recognitions.

Undergraduate Studies

Earn your **bachelor's degree** in Nuclear Engineering at NLU! This program is a foundation for postgraduate study. The program also prepares students for other careers in chemistry and engineering. Students are instructed in the basics of **calculus**, **physics**, and **computer science**. If you wish to major in Nuclear Engineering, talk to your advisor.

Postgraduate Studies

Our department offers **master's degrees** and **PhDs**. Master's students are encouraged to choose a concentration for their degree. **Doctoral** students pick multiple concentrations and one area of expertise. Our postgraduate program is recognized for its excellence in **thermal hydraulics** and **radiochemistry**. Learn more about postgraduate admissions on our "Graduate Admissions" page.

Reading

2 Read the webpage. Then, complete the table.

| Type of study | Degrees offered | Subjects covered |
|---------------|------------------|------------------|
| Undergraduate | 1 _____ _____ | 2 _____ _____ |
| Postgraduate | 3 _____ _____ | 4 _____ _____ |

Vocabulary

3 Fill in the blanks with the correct words from the word bank.

word BANK

doctoral engineering PhD physics
postgraduate undergraduate

- 1 Some programs require _____ students to get master's degrees first.
- 2 The study of the properties of matter is known as _____.
- 3 Students who examine and build machines study _____.
- 4 Any classes a student takes after earning any degree are _____ classes.
- 5 Students working towards bachelor's degrees are _____ students.
- 6 In many industries, a(n) _____ is the highest degree available.

4 Read the sentence pairs. Choose which word or phrase best fits each blank.

- 1 master's degree / bachelor's degree**
 A Undergraduate students work towards a _____.
 B Two-year graduate students typically earn a _____.
- 2 calculus / radiochemistry**
 A Students in _____ often perform experiments with radioactive substances.
 B Students who enjoy complex mathematics should consider studying _____.
- 3 thermal hydraulics / computer science**
 A _____ explores the relationship between heat and water.
 B Programming and hardware design are part of the curriculum for _____.

5 Listen and read the webpage again. What concentrations can graduate students choose?

Listening

6 Listen to a conversation between an academic advisor and a student. Mark the following statements as true (T) or false (F).

- ___ The student recently finished a degree program.
- ___ The advisor thinks the student should look at postgraduate programs immediately.
- ___ The student majored in computer science.

7 Listen again and complete the conversation.

Advisor: Are you considering **1** _____ in the future?

Student: Yes. I want to **2** _____ someday.

Advisor: That's very ambitious. First, some programs require **3** _____.

Student: I understand. I'll start looking at postgraduate programs after I **4** _____.

Advisor: Actually, **5** _____ to start looking at those programs now.

Student: Really? Won't I need to finish my undergraduate studies before I apply?

Advisor: No. Usually **6** _____ before they are finished. They just require you to finish your bachelor's degree soon.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

Are you considering ...?
I would advise you to ...
You should try to ...

Student A: You are an academic advisor. Talk to Student B about:

- his or her academic progress
- his or her plans for postgraduate study
- your advice

Student B: You are a student. Talk to Student A about your plans for postgraduate study.

Writing

9 Use the conversation from Task 8 to complete the progress report.

Academic Progress Report

Student Name: _____

Student's Academic Goals:

Advisor's Recommendations:

**CAREER
PATHS**

KINDERGARTEN Teacher

Virginia Evans - Jenny Dooley
Rebecca Minor



Express Publishing

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14 Traits of the Kindergarten Teacher



communicative



organized



caring



patient

HES Hansten Elementary School Newsletter

Happy September!

We are excited to introduce Amanda Perez. Ms. Perez is our new kindergarten teacher. She joins our school from California. She taught kindergarten there for five years. Past students called her **kind**, **caring** and **understanding**. Parents appreciated how **organized** and **communicative** she was. Ms. Perez is a very welcome addition. She specializes in **innovative** and **creative** teaching approaches. We asked her to say a few words. "I am **passionate** about teaching. I try to be **patient** and **flexible**. Your child's success is my priority. I look forward to meeting you all." – Amanda Perez.

Get ready!

- 1 Before you read the passage, talk about these questions.
 - 1 What personality traits do kindergarten teachers need to have?
 - 2 How do certain personality traits help kindergarten teachers with their jobs?

Reading

- 2 Read the school newsletter. Then, mark the following statements as true (T) or false (F).
 - 1 Ms. Perez has taught kindergarten before.
 - 2 Parents viewed her as kind and understanding.
 - 3 Ms. Perez uses new and creative teaching methods.

Vocabulary

- 3 Fill in the blanks with the correct words from the word bank.

word BANK

communicative flexible innovative
organized understanding

- 1 The teacher was _____ and regularly talked with parents.
- 2 Desks should be well _____, with everything in its proper place.
- 3 Children must be picked up at noon. This is not _____.
- 4 The teacher was _____ when the child missed school due to illness.
- 5 That _____ teaching technique is new and different.

4 Read the sentences and choose the correct words.

- 1 The teacher was **flexible/kind** and welcomed new students warmly.
- 2 The students performed **creative/understanding** activities like arts and crafts.
- 3 The teacher was **organized/patient** as he explained the rules a third time.
- 4 Kindergarten is a **innovative/caring** place, where children's feelings are a priority.
- 5 Mrs. Jenson loved teaching and was **communicative/passionate** about her job.

5 Listen and read the school newsletter again. How does Ms. Perez feel about teaching?

Listening

6 Listen to a conversation between an interviewer and a teacher. Check (✓) the traits that the man mentions.

- 1 Patient
- 2 Passionate
- 3 Communicative
- 4 Caring
- 5 Organized

7 Listen again and complete the conversation.

Interviewer: You appear 1 _____ for this position. You have plenty of experience.

Teacher: Thank you. I'm really excited about this opportunity.

Interviewer: There are certain traits that 2 _____ at this school.

Teacher: Of course.

Interviewer: 3 _____ a passionate, caring and communicative individual.

Teacher: I definitely try to embody those traits. I also 4 _____ patient and organized.

Interviewer: That's good to hear. 5 _____ are you regarding start dates?

Teacher: I'm very flexible. 6 _____ to start work immediately.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

You appear ...

I'm really excited about ...

There are certain traits ...

Student A: You are an interviewer. Talk to Student B about:

- the position
- desired traits
- flexibility regarding start dates

Student B: You are a teacher. Talk to Student A about your personality traits.

Writing

9 Use the school newsletter and conversation from Task 8 to complete a report card describing a student's traits.

Report Card

Name: _____

Academic Traits: _____

Social Traits: _____

**CAREER
PATHS**

Virginia Evans
Jenny Dooley
Craig Vickers

Sales and Marketing



Express Publishing

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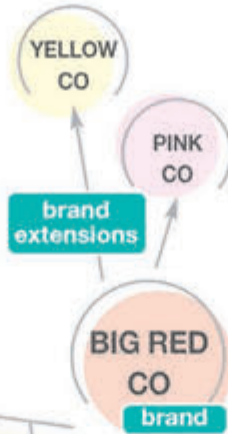
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Get ready!

1 Before you read the passage, talk about these questions.

- 1 How can a company increase its brand recognition?
- 2 What happens if a company has too many product lines?



prefer

Speedy
Athletic
Gear

other
similar
brands

AN
DER
SON
MARKET
RESEARCH

ANDERSON MARKET RESEARCH BRANDING REPORT

Speedy Athletic Gear

Anderson Market Research researched Speedy Athletic Gear's products and markets extensively.

So far, your efforts at **branding** are successful. Speedy Athletic Gear has a distinct **identity**. Consumers **recognize** your logo, colors, and designs easily. They **associate** your shoes with the fastest and most skilled athletes. What's more—they **prefer** Speedy Athletic Gear over similar **brands**. Customers know Speedy Athletic Gear offers a long-lasting, quality product for a fair price. That kind of **brand loyalty** is hard to come by, and so we recommend that you make any changes cautiously.

However, we do think there is room for Speedy Athletic Gear to grow. How can customers further **differentiate** Speedy Athletic Gear? Through **brand extension**. Customers are **familiar with** your excellent athletic shoes. But they want to see more—starting with clothes and safety equipment. We recommend staying close to your original product line. This prevents **brand dilution** and increases the **likelihood** that the new products will carry the same associations as your shoes. If Speedy Athletic Gear achieves those two goals, the new lines could be quite successful.

Reading

2 Read the report. Then, mark the following statements as true (T) or false (F).

- 1 The company's clothes are preferred over similar products from competitors.
- 2 Customers appreciate the quality of the company's products.
- 3 The report recommends new products that differ greatly from the original product line.

Vocabulary

3 Write a word or phrase that is similar in meaning to the underlined part.

- 1 This company's name and image is very popular with teenagers. r
- 2 Customers like the company's tea products more than its coffee products. e
- 3 Few people are aware of the company because it doesn't advertise. a m r i
- 4 Because of the process of adding a new product line to a brand, sales have increased. n t n

4 Read the sentence pairs. Choose which word or phrase best fits each blank.

1 recognize / associate

- A Customers don't _____ the brand because it's very new.
- B People _____ the company with high quality computers.

2 brand dilution / branding

- A Advertising and marketing are major parts of _____.
- B _____ can hurt all of a company's product lines.

3 differentiate / identity

- A The company is always changing, so it lacks a clear _____.
- B It's hard for customers to _____ one service from another.

4 likelihood / brand loyalty

- A The company built _____ in customers with reliable products.
- B The _____ that customers will buy your brand again drops if the product fails.

- 5 🎧 Listen and read the report again. How can the company extend its brand and avoid dilution?

Listening

- 6 🎧 Listen to a conversation between two managers. Choose the correct answers.
- 1 What is the conversation mainly about?
A the pros and cons of creating new products
B how brand dilution damaged the company
C the results of the company's brand extension
D when to release a new line of products
 - 2 What does the man think?
A brand extension is too risky
B the company identity is weak
C brand dilution hurt the company's reputation
D the new products are not of a high enough quality

- 7 🎧 Listen again and complete the conversation.

Manager 1: I thought it made a lot of good points. After all, we do have a great identity. Why not use that to support some 1 _____?

Manager 2: I don't know. It seems 2 _____ to me.

Manager 1: Risky? 3 _____?

Manager 2: Well, we make great shoes. But we've never made clothes or protective equipment.

Manager 1: So you're worried about 4 _____?

Manager 2: That's one concern. Also, we worked hard to be the best shoe company. If we put out too many items, we might lose that.

Manager 1: True. But I think a 5 _____ will avoid that, and we'd increase sales.

Manager 2: Hopefully. The other is that customers already have their favorite clothing and protective equipment brands.

Manager 1: Probably. But we can get past that 6 _____ by providing better products. And consumers already associate us with quality.

Speaking

- 8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

What did you think?
It seems ... to me.
So you're worried about ...?

Student A: You are a manager. Talk to Student B about:

- a branding report
- the advantages of brand extension
- the disadvantages of brand extension

Student B: You are a manager. Talk to Student A about the benefits and risks of brand extension.

Writing

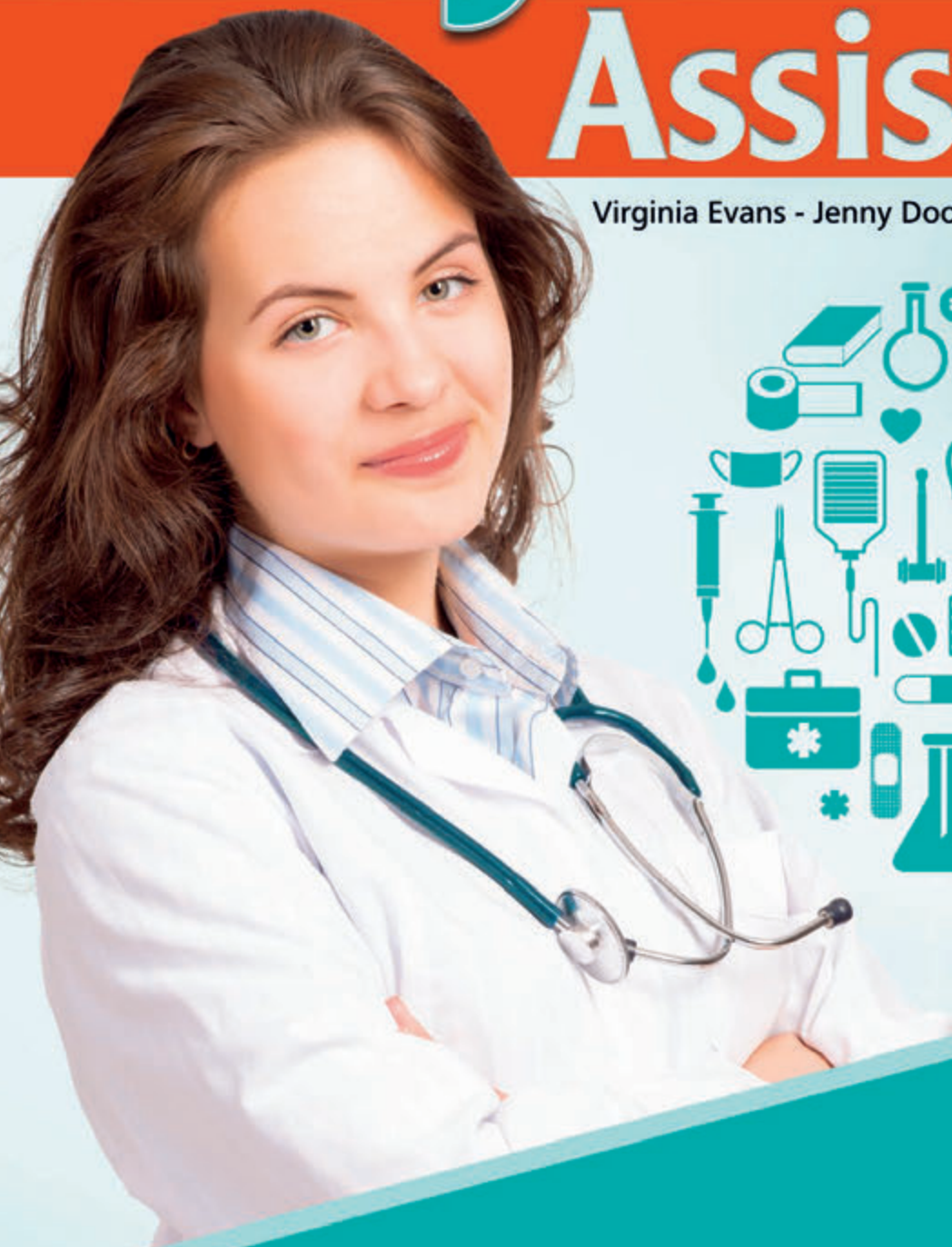
- 9 Use the report and conversation from Task 8 to fill out a manager's proposal for brand extension. Include: the current line and suggested new products, the benefits, and the risks.



**CAREER
PATHS**

Physician Assistant

Virginia Evans - Jenny Dooley - Craig Anderson, PA



Express Publishing

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qhs



ac



pc



QOD



Observation – Patient Medications –

Brighton Central Hospital

Paul White

Mr. White requires hydrocortisone **QOD**.

Robert Green

Give Mr. Green 200 mg of acetaminophen **TID**.
These should be taken **ac** with water.

Greg Anderson

Mr. Anderson requires injections frequently – **QID**.
If his heartbeat is irregular, give him a 25 cc injection of lidocaine **stat**.
Notify the physician on call right away.

Anne Smith

Mrs. Smith can have ibuprofen **PRN**. She must take it **pc**, so bring
some food with it. She should also take her antibiotics **qhs**.

Carol Thompson

Ms. Thompson needs steroid injections **BID**, in the morning and night.
Her I.V. drip should be exchanged **q h**.

Get ready!

1 Before you read the passage, talk about these questions.

- 1 What are some common frequencies for administering medicine?
- 2 Why should PAs study all the abbreviations for medicine frequencies?

Reading

2 Read the patient and medication list. Then, mark the following statements as true (T) or false (F).

- 1 ___ Mr. Green should take his heart disease pills after eating.
- 2 ___ Ms. Thompson needs steroid injections three times per day.
- 3 ___ Mr. Anderson has a condition that could require immediate attention.

Vocabulary

3 Match the words (1-5) with the definitions (A-E).

- | | |
|-----------|-----------|
| 1 ___ QID | 4 ___ BID |
| 2 ___ QOD | 5 ___ TID |
| 3 ___ PRN | |

- A given three times per day
- B given every other day
- C given twice per day
- D given as needed
- E given four times per day

4 Write a word that is similar in meaning to the underlined part.

- 1 Get that medication immediately! _ t _ _
- 2 Take this medicine when you go to bed. _ _ s
- 3 Give Mr. Aimes his meds before he eats. _ _
- 4 Administer these pills once every hour. _ _
- 5 Be sure the patient gets her dosage after she eats. _ _

5 Listen and read the patient and medication list again. How can medical personnel note that medication should be taken before or after meals?

Listening

6 Listen to a conversation between a doctor and a PA. Choose the correct answers.

- 1 What change do the speakers make to Ms. Reed's medication?
 - A She must take it with food.
 - B She must take larger doses.
 - C She must take it more often.
 - D She must take it as she goes to bed.
- 2 When should Mr. Grey take his blood thinner?
 - A before bed
 - B before meals
 - C twice a day
 - D three times a day

7 Listen again and complete the conversation.

Doctor: Alan, do you 1 _____ ?
I'd like to review patient meds.

PA: Sure. Which patients are you thinking of?

Doctor: Let's start with Ms. Reed. She's just on ibuprofen, correct?

PA: Right. I have her on 200 mg, 2 _____ .

Doctor: Hmm ... She probably needs more. 3 _____

PA: Will do. Who else can I 4 _____ ?

Doctor: Mr. Grey. What are his meds?

PA: He's taking a blood-thinner 5 _____ .

Doctor: Great. Make 6 _____ , too.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

I'd like to review ...
She probably needs ...
Make that ...

Student A: You are a doctor. Talk to Student B about:

- patient medications
- changes in frequency
- whether to give medication with food or not

Student B: You are a PA. Talk to Student A about patient medications.

Writing

9 Use the conversation from Task 8 to fill out the patient medication chart.

**Brighton
Central Hospital**

Patient Medication List

Patient: _____

Medication: _____

Frequency: _____

Patient: _____

Medication: _____

Frequency: _____

**CAREER
PATHS**

Au Pair

Virginia Evans
Jenny Dooley
Annaliese Gruber



Express Publishing

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2

Qualities of an Au Pair

Get ready!

1 Before you read the passage, talk about these questions.

- 1 What qualities should an au pair have?
- 2 Why is it necessary to have these qualities?



adaptable

responsible

positive

confident

creative

non-smoker

friendly

caring

trustworthy

AU PAIR WANTED

Au pair needed to look after two boys aged 7 and 5. Also must do light household chores.

We seek a **dependable, trustworthy** person to provide **responsible** child care.

Applicants must:

- have a **positive** attitude
- be **confident** and **friendly** with children
- be **caring** and **patient**
- be able to be **assertive** when necessary
- be **creative**, since our boys love painting and crafts
- be **adaptable** to different situations
- be a **non-smoker**

Please send a resume and reference to: E. Mueller, 189a Rue de la Champs, Provence

Reading

2 Read the advertisement. Then, mark the following statements as true (T) or false (F).

- 1 The employer has two sons.
- 2 The employer's children enjoy creative activities.
- 3 The employer doesn't mind if the au pair smokes.

Vocabulary

3 Write a word or phrase that is similar in meaning to the underlined part.

- 1 Jessie is the type of person who will act sensibly and do what is asked of them.
r _ _ p _ _ _ b _ _
- 2 Alex is the type of person who doesn't get angry or stressed if things take a long time.
_ a t _ _ _ _
- 3 Georgie is the type of person who looks after other people sensitively.
_ _ r _ _ g
- 4 Fiona is the type of person who loves making things, painting and using her imagination.
_ r _ _ t _ _ _
- 5 Colin is the type of person you can rely on to do what you ask.
_ _ p _ _ d _ _ l _
- 6 Philip is a person who does not use cigarettes.
n _ _ - s _ _ _ _ r

4 Read the sentence pairs. Choose which word or phrase best fits each blank.

1 confident / trustworthy

- A A _____ person will not steal from you.
B A _____ person is not shy in public.

2 assertive / friendly

- A A(n) _____ person can make decisions and act on them.
B A(n) _____ person likes to be sociable.

3 positive / adaptable

- A A _____ person is usually cheerful.
B _____ people don't mind changes to their lifestyle or routine.

5 Listen and read the advertisement again. What type of au pair does the person want to employ?

Listening

6 Listen to a conversation between two parents. Mark the following statements as true (T) or false (F).

- 1 ___ The woman has just hired a new au pair.
2 ___ The woman's last au pair was not responsible or trustworthy
3 ___ The man's au pair is confident and creative.

7 Listen again and complete the conversation.

Parent 1: I hear you are advertising for a new au pair.

Parent 2: Yes. Unfortunately our last one was not **1** _____ enough.

Parent 1: Really? I thought she was very **2** _____.

Parent 2: Yes, she was very **3** _____. But sadly, she wasn't very trustworthy.

Parent 1: That's a shame. She seemed so **4** _____.

Parent 2: You've just hired someone haven't you? What's **5** _____?

Parent 1: I'm worried she's not confident enough, but she's **6** _____ with the children.

Parent 2: That's the most important thing.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

What's she like?

She seems so ...

I'm worried she's not ... enough.

Student A: You are a parent. Talk to Student B about:

- problems with a past au pair
- good qualities in an au pair
- negative qualities in an au pair

Student B: You are a parent. Talk to Student A about your experiences with au pairs.

Writing

9 Use the conversation from Task 8 to fill out the woman's request to the au pair agency.

Request

I'd like to employ an au pair who is _____.

My last au pair was _____.

So this time, I want _____.

**CAREER
PATHS**

Physiotherapy

Virginia Evans
Jenny Dooley
Susanne Hartley MPT



Express Publishing

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Get ready!

1 Before you read the passage, talk about these questions.

- 1 What are the requirements for clinical decision making?
- 2 What are the components of patient management?



The PT Specialists

Our Staff and Services

For twenty years, we've proudly provided outstanding patient services. We hire skilled and experienced physical therapists. We also maintain up-to-date equipment in a spacious, modern facility.

Our Philosophy

Patient management requires skill and care in equal measure. The process begins with examinations. We then do **evaluations** of exam data. During this stage, we can make a **diagnosis** and a **prognosis**. If a patient's condition changes, we do **reexaminations**, as needed. In **consultation** with patients, we determine the best course of **intervention**.

Each patient is provided with a written **plan of care**. This document describes the course of treatment, and expected outcomes. If reexaminations suggest a better course, we will change the plan.

Here, at The PT Specialists, we perform an **evidence-based practice**. We rely only on research. If our **clinical decision making** is insufficient, we make **referrals**. The care of our patients comes first.

Reading

2 Read the pamphlet. Then, mark the following statements as true (T) or false (F).

- 1 ___ The patient management process begins with evaluations.
- 2 ___ Staff members at PT Specialists consult with patients before planning interventions.
- 3 ___ Staff members at PT Specialists rely on research when clinical decision making is insufficient.

Vocabulary

3 Match the words or phrases (1-7) with the definitions (A-G).

- | | |
|--------------------------|--------------------------------|
| 1 ___ referral | 6 ___ evidence-based practice |
| 2 ___ plan of care | 7 ___ clinical decision making |
| 3 ___ intervention | |
| 4 ___ reexamination | |
| 5 ___ patient management | |

- A a description of patient care, and goals
 B the process of coordinating, documenting, and communicating instructions
 C the process of directing someone to another professional for treatment
 D an evaluation that helps modify prognoses, plan of care, and intervention
 E the use of evidence and expertise to make decisions about patient care
 F the process of making judgments in the interest of patient care
 G a process including diagnosis and intervention

4 Read the sentence pairs. Choose which word best fits each blank.

1 consultation / evaluation

- A Judy and Heather had a(n) _____ about an elderly patient.
 B Each month, Dr. Hu gives me a written _____ of each patient.

2 prognosis / diagnosis

- A The _____ was lower back pain due to arthritis.
 B Dr. Kelly had a hopeful _____ regarding Sam's recovery.

- 5 Listen and read the pamphlet again.
What is a plan of care?

Listening

- 6 Listen to a conversation between an interviewer and a physical therapist. Choose the correct answers.
- According to the man, when is it appropriate to do reexamination?
 - when he looks for information to solve problems
 - when he does an evaluation of exam data
 - when a patient's condition changes
 - when someone makes a terrible mistake
 - What does the man do when he is unsure about a patient's condition?
 - He performs clinical decision making.
 - He makes referrals to patients.
 - He provides an accurate diagnosis.
 - He does examinations of data.

- 7 Listen again and complete the conversation.

Interviewer: So, why don't you tell me a bit about your 1 _____ ?

PT: Certainly. I follow the traditional 2 _____ process. That is, I look for the proper information to solve the problem. This includes examinations and, sometimes, reexaminations.

Interviewer: When do you think 3 _____ are appropriate?

PT: When a patient's condition changes. That's why 4 _____ are so important.

Interviewer: Okay. Please continue to your next step.

PT: Yes. Next, it's important to do careful 5 _____ of all exam data.

Interviewer: Do you rely on your own expertise for this?

PT: Largely. But, I'm not afraid to admit when I'm unsure. Sometimes, I make 6 _____ to other therapists.

Speaking

- 8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

*So, why don't you tell me a bit about your ...
When do you think ...are appropriate?
Do you rely on ...?*

Student A: You are an interviewer. Talk to Student B about:

- his or her patient management style
- the steps of clinical decision making
- when to make referrals

Student B: You are a physical therapist. Talk to Student A about your patient management style and work experience.

Writing

- 9 Use the conversation from Task 8 to fill in a part of the job application.

The PT Specialists

Application for Employment

Name: _____

Address: _____

Phone Number: _____

Please tell us a bit about your patient management style: _____

CAREER
PATHS

Fitness Training

Virginia Evans
Jenny Dooley
J Donsa



Express Publishing

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Get ready!

1 Before you read the passage, talk about these questions.

- 1 What are the parts of a gym or health club?
- 2 What services do gyms and health clubs offer?



group fitness studio



cardio theater



cycling studio

weight room

Who We Are

We have forty **health clubs** across the country. We're serious about fitness. We're also serious about providing the best services.



Galaxy Gym

What We Offer

All **gyms** have **locker rooms**, saunas, and snack bars. Our **weight rooms** house 50 machines.

Warm up in one of two **cardio theaters**. Our machines offer personalized workouts to fit your needs.

Check out our **group fitness studios**. Sign up for yoga, Pilates, martial arts, or aerobics. Head to the **cycling studio** for spin classes. Schedules and details are available at our **front desks**.

We address every need with excellence. There are no traditional **water fountains** here. Instead, we offer water coolers. **Restrooms** are located within the locker rooms.

Reading

2 Read the brochure. Then, mark the following statements as true (T) or false (F).

- 1 ___ Galaxy Gyms offer locker rooms, saunas, and snack bars.
- 2 ___ Members take yoga classes in the cardio theaters.
- 3 ___ Schedules are posted on the walls of the gym.

Vocabulary

3 Place the words and phrases from the word bank under the correct headings.

Word BANK

weight room cycling studio
locker room group fitness studio
cardio theater restroom

| Spaces for Exercise | Spaces for Changing |
|---------------------|---------------------|
| | |
| | |
| | |
| | |

4 Read the sentence pairs. Choose which word or phrase best fits each blank.

1 front desk / health club

A The monthly membership fee at the _____ is sixty dollars.

B I signed my name on a clipboard at the _____.

2 gym / water fountain

A Sally works out at a _____ near her office.

B Brian went to the _____ to refill his bottle.

5 Listen and read the brochure again. How do gym or health club members get information about classes?

Listening

6 Listen to a conversation between a personal trainer and a client. Choose the correct answers.

1 Where do most of the classes take place?

A in the weight rooms

C in the group fitness studios

B in the yoga studio

D in the cycling studio

2 What will the man likely do next?

A begin his workout

C sign up for weightlifting

B change his clothes

D go to the cycling studio

7 Listen again and complete the conversation.

Trainer: We have two 1 _____ on the first and second floors.

Client: Do you have 2 _____ ?

Trainer: Yes. Four. The group fitness studios are for yoga, Pilates, kickboxing, and dance classes, and step aerobics.

Client: What about spin cycling?

Trainer: We have 3 _____ for that.

Client: When do you offer yoga?

Trainer: Most classes are in the morning. You can check with the 4 _____ for the schedule.

Client: Well, I'm ready to get started. Where are the 5 _____ ?

Trainer: Just to the left of the 6 _____.

Speaking

8 With a partner, act out the roles below based on Task 7. Then, switch roles.

USE LANGUAGE SUCH AS:

The group fitness studios are for ...

When do you offer ...?

You can check with the front desk for ...

Student A: You are a personal trainer. Talk to Student B about:

- exercise rooms
- fitness classes
- locker rooms

Student B: You are a client at a gym. Talk to Student A about the gym and its services.

Writing

9 Use the brochure and the conversation from Task 8 to design the gym's class schedule.



Galaxy Gym Class Schedule

| Class | Location | Day and Time |
|-------|----------|--------------|
| | | |
| | | |
| | | |
| | | |
| | | |
| | | |

Glossary

- self-talk** [N-UNCOUNT-U12] **Self-talk** is the practice of talking to oneself either aloud or silently with the effect of positive or negative influence.
- senior** [N-COUNT-U3] A **senior** is someone who is over sixty years old.
- shin splints** [N-UNCOUNT-U9] **Shin splints** are an injury caused by inflammation of the tendons that attach to the front of the shins, usually caused by too much impact stress on the lower leg.
- shock** [N-UNCOUNT-U10] **Shock** is the inability of the circulatory system to supply enough blood to surrounding tissues, causing incomplete removal of wastes from tissues and an insufficient supply of oxygen and nutrients.
- short-term** [ADJ-U12] If something is **short-term**, it is to be accomplished in the near future.
- social physique anxiety** [N-UNCOUNT-U11] **Social physique anxiety** is when people place too much emphasis on how they look compared to others, causing them worry and stress.
- social support** [N-UNCOUNT-U11] **Social support** is the emotional and physical comfort people receive from family members, friends, co-workers, and other acquaintances.
- specific** [ADJ-U12] If something is **specific**, it is detailed and precise.
- spouse** [N-COUNT-U11] A **spouse** is someone that a person is married to.
- sprain** [N-COUNT-U9] A **sprain** is an injury that affects the ligaments of a joint and is caused by overstretching.
- stable** [ADJ-U5] If a person's blood sugar levels are **stable**, it remains within normal levels without dangerous fluctuations.
- stimulant** [N-COUNT-U2] A **stimulant** is a substance that causes the body to work quicker or better.
- strain** [V-T-U6] To **strain** a muscle is to stretch it to the point where damage occurs.
- stress fracture** [N-COUNT-U9] A **stress fracture** is a small crack that occurs in a bone caused by overtired muscles no longer being able to effectively absorb impact shocks, and as a result the impact shocks are transferred to the bone.
- supervision** [N-UNCOUNT-U8] **Supervision** is the process of overseeing activities or tasks being performed by someone to ensure they are done correctly.
- supine** [ADJ-U5] If a person is **supine**, they are laying on their back, facing upward.
- survey** [T-V-U8] To **survey** something is to examine it closely.
- sweat** [N-UNCOUNT-U3] **Sweat** is a clear, salty liquid that appears on the surface of the skin due to factors such as heat, illness, or strenuous activity.
- tear** [N-COUNT-U9] A **tear** is an injury to a muscle or ligament that causes some of the tissue to pull apart and separate.
- tendonitis** [N-UNCOUNT-U9] **Tendonitis** is the inflammation of a tendon that usually occurs due to excessive use, such as during exercise or sports.
- tennis elbow** [N-COUNT-U9] **Tennis elbow** is an injury caused by a tear in the tendons or muscles around the elbow, usually due to overuse.
- timely** [ADJ-U12] If something is **timely**, it is done at the right time.
- total energy expenditure (TEE)** [N-COUNT-U1] A **total energy expenditure (TEE)** is the amount of energy, or calories, spent, on average, within one normal day.
- trauma** [N-COUNT-U10] A **trauma** is a serious injury to living tissue caused by an outside factor.
- treatment** [N-COUNT-U7] **Treatment** is all medical care and therapy that a person receives in response to a diagnosis.
- trust** [N-COUNT-U4] **Trust** is a measure of faith and confidence in a person or idea.
- unrealistic** [ADJ-U11] If something is **unrealistic**, it is not likely or possible to occur.

