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ASP Elite Stream

English



Grade
07

Elite Stream

English Language

Coursebook
Book 7

Volume 1

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Grade 7 Coursebook

The Grade 7 ASP English Elite Stream Coursebook has been authored by the Ministry of Education in collaboration with Cambridge University Press. Following a full needs analysis from the field, the book has been thematically and artistically influenced by the students of the Ministry of Education.

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Introduction

ASP English is a course designed for learners studying in the ASP Elite Stream in government schools across the United Arab Emirates.

ASP English Grade 7 covers 9 units of study and includes a wide variety of interesting themes and topics that will engage and motivate learners. With a strong focus on inquiry-based learning, activities are designed to foster learner independence through problem-solving, critical thinking and collaborative learning.

ASP English takes a unique approach to the teaching and learning of the English language, and Math and Science through the English medium. The series promotes both explicit and integrated language instruction, encompassing language strategies that facilitate learning and language use across skills.

Sections

ASP English is divided into the following sections:

English

In this section, learners develop the fundamental skills of the English language: listening, speaking, reading and writing. Learners are presented with authentic texts and tasks that allow them to practice their English in real-world scenarios. With a focus on both general English and academic skills, learners will develop, consolidate and extend their language proficiency in preparation for study in an English-speaking environment.

Projects


In this section, learners apply their knowledge and skills through a range of practical literature and STEAM-orientated authentic tasks. Through the projects, learners are exposed to hands-on learning that challenges them to think critically and creatively.


ASP Math and Science

In this section, learners are equipped with a range of language strategies that will help them master the basic terminology for math and science, as well as build on their English language skills and confidence within the context of these subjects.

Features

The book contains the following features:

 – links to 21st century skills

 – listening activity

Read the statements and tick the best description. – self-assessment

All tips can be used as a teaching item and to model examples or for self-reference for learners.

Language Tip: A concise tip to help illustrate and clarify language points.

Writing Tip: A concise tip to support the development of writing skills.

Speaking Tip: A concise tip to support learners in developing fluency, which can be used in preparation for a speaking task.

Use of English: A tutorial of a grammar point, explaining when the point applies and providing modeled examples.

Vocabulary boxes: A simple definition to help learners understand new vocabulary.

Listening Strategy: A briefing that will help learners apply a range of different listening techniques to different tasks.

Reading Strategy: A briefing that will help learners apply a range of different reading techniques to different tasks.

Did You Know?: An engaging fact to inspire learners, which can be used to prompt discussion, or as an extension opportunity.



Contents



content is defined on smart learning app

Unit	English	Projects
1 <i>Food for Life</i> (p.1-26)	<ul style="list-style-type: none"> To listen to an interview for specific information about food myths. To persuade others to create a healthy diet plan. To listen to a show about how to reduce food waste. To read a text about food chains for specific information. To write a short informative text about a specific food web. (p.3-4) 	<i>Share a recipe</i>
2 <i>How Things Work</i> (p.27-50)	<ul style="list-style-type: none"> To listen to a podcast about robots and label the robot parts in a diagram. To collaborate with peers to create and present a robot for a specific purpose. To understand and use relative clauses. To read a short informative text about the water cycle and link it to a diagram. To describe the process of cleaning water in a sequenced text. (p.27-28) 	<p><i>Literature Project: Tik-Tok of Oz</i></p> <ul style="list-style-type: none"> Read excerpts from a literary text and answer comprehension questions. Plan, create and present a poster about how a robot works. <p><i>STEAM Project: Design a light show</i></p> <ul style="list-style-type: none"> Plan, create and present a poster about an LED light show.
3 <i>It's a Small World</i> (p.51-74)	<ul style="list-style-type: none"> To listen to short recordings about why people learn a second language and determine the reasons. To lead and participate in group discussions about current events. To use a range of quantifiers to describe where food comes from. To read an email describing the different ways to travel in the present and past tenses. To write an email informing a friend on what to do and see in the UAE. (p.51-52) 	
4 <i>Patterns</i> Online Content	<ul style="list-style-type: none"> To listen to a narration and match shapes to patterns. To give a presentation on number sequences. To use zero conditionals to describe optical illusions. To read a website text about Islamic Art and recognize referencing words. To write about patterns in everyday life. (p.75-76) 	

ASP Science	Learning objectives
1 A <i>What are Newton's laws? (p.95-96)</i>	<ul style="list-style-type: none"> To develop reading for gist and reading for detail skills when reading multiple informative texts. To be able to explain thoughts and ideas in conversations.
1 B <i>What is motion? (p.97-98)</i>	<ul style="list-style-type: none"> To develop learners' ability to explain scientific ideas using illustrations/diagrams and labels.
1 C <i>What are the properties of matter? (p.99-100)</i>	<ul style="list-style-type: none"> To develop reading for detail in multiple short texts. To be able to identify the meaning of new vocabulary words and identify examples of their use.
1 D <i>What is temperature, thermal energy, and heat? (p.101-102)</i>	<ul style="list-style-type: none"> To develop learners' ability to read for detail when reading longer informative texts. To develop learners' ability to write about a text including writing questions about it.

ASP Math	Learning objectives
1 A <i>What are operations with integers? (p.109-110)</i>	<ul style="list-style-type: none"> To develop learners' ability to read for specific information. To develop learners' ability to write numbers in word form.
1 B <i>What are operations with rational numbers? (p.111-112)</i>	<ul style="list-style-type: none"> To develop learners' ability to read for specific information.
1 C <i>What are ratios and proportions? (p.113-114)</i>	<ul style="list-style-type: none"> To develop learners' ability to read for specific information.



ENGLISH







UNIT 1

Food for Life

ENGLISH

Key Learning Objectives

- Listening** To listen to an interview for specific information about food myths.
- Speaking** To persuade others to create a healthy diet plan.
- Language Focus** To use modal verbs and imperatives to give advice about reducing food waste.
- Reading** To read a text about food chains for specific information.
- Writing** To write a short informative text about a specific food web.





DISCUSSION

- Do you mostly eat healthy or unhealthy food?
- What unhealthy food would you never stop eating?
- Do you ever order too much food at a restaurant? Do you throw much food away? Why do you think this might be bad for the environment?
- Where does your food come from?
- What does a camel eat? What does a falcon eat?

How can food improve your health?

What makes food good for you?

What are some healthy foods you eat?

What are some healthy foods you don't eat? Why?

- 1 With a partner, read about Khalid and Hammad. Who do you think has a healthy body? Who has an unhealthy body? Why?

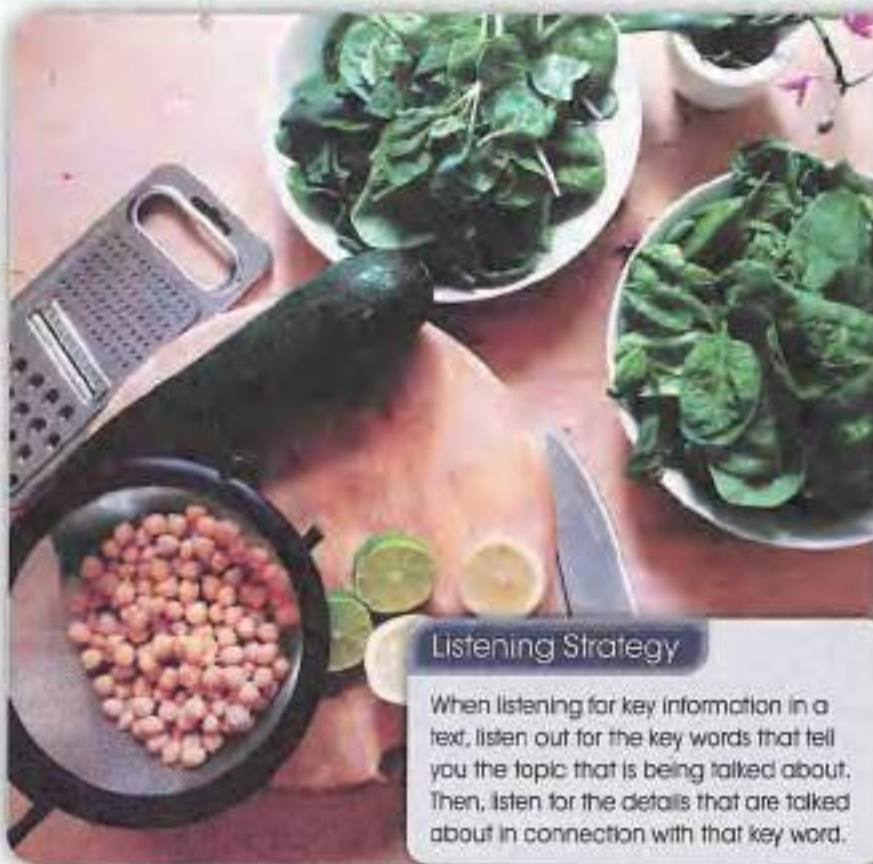
Khalid loves to eat pizza and hamburgers. He doesn't care that these foods are bad for him. His friends love playing sports like soccer, but Khalid never plays sports. He only plays video games and watches television.

Hammad eats a lot of fruits and vegetables. He does not eat a lot of candy or other sweet food. He's always moving. He loves playing sports like basketball and soccer. He knows exercise is good for him.

LISTENING

- 2 You are going to listen to an interview with Dr. Sara about good food and habits for a healthy life.
- Circle the words that you know.
 - Listen to the interview. Put a checkmark next to the words that you hear.

- garlic
- fat
- beans
- exercise
- strong
- vitamins
- energy
- muscle
- diet
- orange



Listening Strategy

When listening for key information in a text, listen out for the key words that tell you the topic that is being talked about. Then, listen for the details that are talked about in connection with that key word.

- 3 Listen to the interview again, and complete the graphic organizer with notes on what you hear.

Healthy foods	What they do and what they don't do
1 carrots	
2 spinach	
3 beans	
4 garlic	
What else can we do to be healthy?	



ENGLISH

1 Unscramble the words and put them in the correct box.

- 1 cllgra
- 2 stimavin
- 3 scelmu
- 4 pccnsh
- 5 nesbo
- 6 syee
- 7 hletahy

Body	Food

2 Read excerpts from the transcript and put in the correct word from Activity 1.

- 1 "So yes, carrots are good for our"
- 2 "For example, helps us not get sick."
- 3 "Fruits and vegetables are always good for us because they have"
- 4 "Today, Dr. Sara will tell us how to keep our bodies"
- 5 "So beans make"

3 Think about the food you've eaten this week and make some notes below.

.....

.....

.....

.....

.....

.....

.....

.....

4 Has your diet been healthy or unhealthy? Are there any food choices you think you should change? Think about your answers and then discuss with a partner.



5 Give health advice using the modal "should".

1 I want to make my eyes stronger.

You should

2 I am always sick.

.....

3 I want bigger muscles.

.....

4 I need more vitamins in my diet.

.....

6 Complete the dialogues using phrases to agree or disagree. If you disagree, give advice for what they should do instead. Use the phrases from the box.

I think... • I don't think... • I agree • I disagree.

*Example Student A: I don't want to eat breakfast today.
Student B: I don't think that is a good idea. You should eat breakfast.*

1 Student A: I think I should eat a salad with lunch.

Student B:

2 Student A: I should have cake for breakfast.

Student B:

3 Student A: I don't need to eat fruits and vegetables.

Student B:

4 Student A: I think I should eat a healthy diet.

Student B:

5 Student A: I think I should eat spinach for dinner.

Student B:



How can food improve your health?

What is your favorite meal?
Do you think it is healthy or unhealthy?



LISTENING

- 1 Listen to the advertisement. Check [✓] if each statement is either true or false.

	True	False
1 Fast Health on Wheels has been in the UAE for a long time.	[]	[]
2 You should always start your day with a healthy breakfast.	[]	[]
3 A balanced diet should have the correct amount of proteins and carbs.	[]	[]
4 You shouldn't eat foods with a lot of carbs.	[]	[]
5 Their meals include vegetables and pasta dishes.	[]	[]
6 You shouldn't drink plenty of water and other low fat drinks.	[]	[]
7 Fast Health on Wheels has millions of customers in the UAE.	[]	[]

- 2 Listen to the advertisement again and fill in the gaps with the missing information.

Use Fast Health on Wheels now!

We are the newest healthy food ¹..... service in the UAE! Eating a healthy diet isn't always easy, but our delivery service will help you.

First, you should always start the day with a healthy ².....

It allows you to have enough energy during the day. We have delicious options.

Our quick delivery service will provide tasty lunch and dinner options also.

These meals are great because they have the correct amount of ³..... and ⁴..... to help you have a balanced ⁵.....

Our meals all have food from every food group including, fresh fish and chicken with a lot of protein, brown rice with healthy carbs, fresh vegetables, and fruit salads.

You shouldn't eat foods with a lot of ⁶..... because you will be ⁷..... and become overweight.

Our meals include vegetables and ⁸..... fruits to give your body the vitamins it needs to be healthy and strong.

You should also drink plenty of water and other ⁹..... drinks.

Our choices of food are low in fat, high in vitamins and very ¹⁰.....

So, get healthy fast in a convenient way now.

We have millions of happy customers all around the UAE and you should join them. Ask yourself, "Why shouldn't I?"

Our quick delivery service will go directly to your doorstep.

Use Fast Health on Wheels today!



SPEAKING

- 3 Check [✓] which foods you think are healthy and unhealthy? With a partner compare ideas.

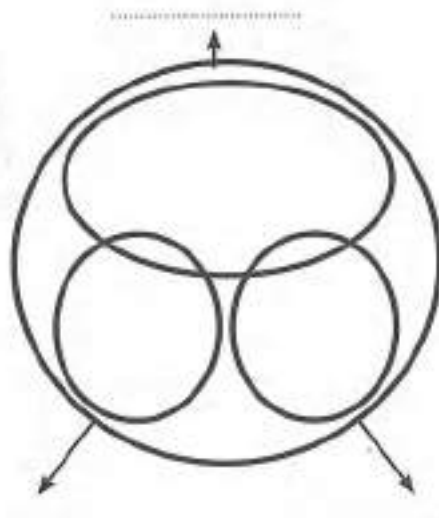
unhealthy	healthy	
• pizza	[]	[]
• cheeseburger	[]	[]
• salad	[]	[]
• baked chicken	[]	[]
• french fries	[]	[]
• soda	[]	[]
• fish	[]	[]
• fruit	[]	[]
• milk	[]	[]
• water	[]	[]



Did You Know?

An advertisement is found in many places. They are on the television, you can see them on billboards when you're riding in a car and on social media sites.

- 4 Work with your partner. Take turns being a nutritionist and give each other recommendations for a healthy meal. Gather ideas from each other and decide what food you will have for your healthy meal plate. Draw the food inside each space provided and label it.



- 5 Discuss your healthy eating plan with a different partner. See the examples below:

Fish is healthy because it has protein.

Fresh fruits are healthy because they have vitamins.

- 6 Plan a healthy eating presentation. What order will you present your information? Practice with your partner.
- 7 Present your healthy meal plan to the owner of the Fast Health on Wheels company.

Speaking Tip

When we are speaking to persuade others, we can use phrases like:
You should use ... or You shouldn't use...



ENGLISH

1 Match each part to make a complete sentence. Think about the reason for giving the advice.

- | | |
|---|---|
| 1 You shouldn't eat too much pizza | a because you will gain a lot of weight. |
| 2 You should eat fruit | b because it is the most important meal of the day. |
| 3 You should drink more water. | c because they are full of vitamins. |
| 4 You shouldn't skip eating breakfast | d because your meal plan will be easier to follow. |
| 5 You should prepare your meals each week | e because it will make you less thirsty. |

2 Complete each sentence with the words in the box.
One word will not be used.

healthy • low fat • delicious • vitamin • diet •
fresh • protein • carbohydrates • fat • unhealthy

- 1 We should always eat food because then you will be able to live a long and healthy life.
- 2 You should try to have a balanced so you can have all the needed foods from each food group.
- 3 You should eat fruits like oranges if you want to have C in your body.
- 4 Fish is healthy because it has
- 5 You shouldn't eat foods because you can become overweight.
- 6 Cheeseburgers and pizza have a lot of, which is not good for your body.
- 7 Brown rice is healthy because it has good for your body.
- 8 Ahmed enjoyed the apple, so he ate another one.
- 9 If you want something sweet, it would be better if you ate ice cream.

Language Tip

Should is used to persuade someone to do something. When we want someone to do something, we give a reason why they should do it.

- 3 You want to eat healthy. Should you use a delivery company or should you prepare your own meals? Choose a different method from your partner. Then complete the notes.



Delivery company

Student A:

You should use a delivery company because...

.....

.....

.....

Student B:

You should prepare your own meals because...

.....

.....

.....



Nutritionist/Prepare your own meals

Student A:

You shouldn't use a delivery company because

.....

.....

.....

Student B:

You shouldn't prepare your own meals because...

.....

.....

.....

- 4 Now discuss your ideas with a partner. See the examples below:

You should use a delivery company because they plan the meals for you.

I disagree. You should plan your own meals because the food will taste better. You can choose what you want to make.

What can we do to reduce food waste?

What is your favorite dish?
Do you like cooking?

LISTENING

- 1 Listen to the start of a cooking show. What is the topic?

Plastic • Food waste • Cooking

- 2 Listen to a chef talking about food waste. Circle the sentences that you hear.

- 1 We should cook.
- 2 Don't throw things away.
- 3 Buy both fruit and vegetables.
- 4 Don't order too much food at restaurants.
- 5 Eat all your food.
- 6 Think about cooking.



SPEAKING

- 3 Can you think of other ways to stop wasting food? Use the mind map to note down your ideas.



- 4 Speak to your partner about your ideas. Are they the same or different? Do you think they are difficult or easy to do?

Language Tip

We use *both* / *and* in a sentence when two nouns are important or equal.

both + noun + *and* + noun

We should eat *both* fruit *and* vegetables.

Use of English

We use imperatives when we want to tell someone to do something.

To make the imperative, we use a *bare infinitive* to give orders or instructions.

Cook the food.

To make it negative, add *do not* or *don't*.

Don't worry.

To include yourself in the instruction, add *let's*.

Let's eat the food together.

LANGUAGE FOCUS

- 5 Read the recipe from a cooking website. Write the verbs in the correct space to complete the recipe.

cut • buy • mix • add • put

Let's make an omelet!

First, **buy** your ingredients: 2 eggs, 1 tomato, 1 pepper, 1 onion, 1 tablespoon of butter, some salt, and some cheese. ¹ the tomato and pepper into small pieces. ² the eggs, some water and salt in a bowl and then add the tomato and peppers. ³ the mix in a pan and then ⁴ the cheese on top. Turn the omelet and when it is ready, eat it!



Did You Know?

Around a third (1/3) of the food produced in the world every year is lost or wasted. This waste could feed a whole country of people.

- 6 Read and complete the sentences.

You can add any vegetable to an omelet. This omelet recipe uses both and
What two ingredients do you want to add? Why don't you write your own recipe?

- 7 Talk to a partner about ingredients you can add to the omelet recipe.

Speaking Tip

When you share ideas, you can use phrases like "Let's..." and "How about..."

Let's add onions.

How about peppers?



Can you name the vegetables in the photo? Which two vegetables do you want to put in an omelet?

ENGLISH


1 Write the words from the box next to the correct meanings.

garbage • to throw away • food waste • to recycle

- 1 Food that we don't eat or use
- 2 To put something in the trash or garbage
- 3 To use something again
- 4 Trash

2 Put the words in the correct order to make sentences.

- 1 eat / let's / dinner
Let's eat dinner
- 2 my plate / put / the cake / on
.....
- 3 the butter / in a frying pan / heat
.....
- 4 put / in / the cookies / the cupboard
.....
- 5 this amazing food / let's / together / eat
.....
- 6 cook / don't / for a long time / the waffles
.....

3  Write your own recipe.

Think about the leftovers from your lunch or dinner. Can you make a recipe using leftovers?
Make notes and then write instructions for your recipe in the box.

What do you want to make?

What ingredients do you need?

What do you need to do?

Mix the ingredients

Now write instructions for your recipe in the box. Remember: Don't waste any ingredients!

Let's make

- 4 Read the sentences about cooking and food waste. Rewrite the sentences using imperative verbs. Remember, we use imperatives for rules or instructions. We use *should* for advice.

1 You should recycle your plastic bottles.

Recycle your plastic bottles

2 You shouldn't make too much food.

3 You should eat all your food or save it for later.

4 You should share food with other people.

5 You should throw away your trash in recycling bins.

- 5 Now use imperative sentences to make a poster about food waste. This is a poster to teach people how to waste less food.

Let's stop food waste!



How are things connected in a food chain?

What did you eat today?

Where did it come from?

READING

- 1 Look at the three items in the box. Put the three in order of which plant or animal eats the other plant or animal.

zebra • lion • grass

First:

Second:

Third:

- 2 Read the text about food chains. Put the paragraphs in the correct order. Look at the **bold** words to help you.

What is a food chain?

a 1 A **food chain** is a way to show the relationships between different animals in the same environment. In a food chain, some animals eat other animals and some animals eat plants. A food chain has different levels. These are called **trophic levels**. The graph shows the trophic levels in a pyramid. Animals on each part of the pyramid are eaten by animals on the next higher part of the pyramid.

b Finally, top carnivores are animals in the last trophic level. These are animals without natural **predators**. So, other animals do not eat them. However, they eat animals from all other levels. One example of a top carnivore is a lion.

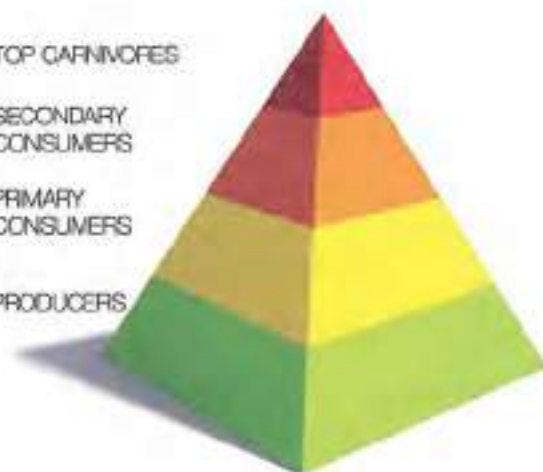
c Third, secondary consumers are animals who can be **carnivores** or **omnivores**. Carnivores only eat meat. Omnivores can eat both plants and meat. An example of an omnivore is a bear. However, secondary consumers also have predators. Other carnivores sometimes eat them. In the UAE, the desert fox is a secondary consumer.

d First, plants that make their own food are called producers. They are plants that animals **consume**. In the UAE desert, the date palm is a producer.

TOP CARNIVORES

SECONDARY
CONSUMERSPRIMARY
CONSUMERS

PRODUCERS



e Second, primary consumers are animals that eat the producers. They are **herbivores**. These are animals that only eat plants. In some food chains, animals like both camels and chickens are primary consumers.

- 3 Use the text to answer the following questions.

1 What are the different levels of a food chain?

.....

2 Which trophic level has animals with no natural predators?

.....

3 What type of animal can eat both plants and animals?

.....

4 Is a camel a herbivore or a carnivore?

.....

5 What trophic level are date palms on?

.....

Reading Strategy

When reading a text to find specific answers, first find key words in the questions. Then look for the same words in the text.

4 Fill in the blanks with words from the text.

- 1 Animals and plants in the trophic level are called producers.
- 2 Primary consumers are animals in the trophic level.
- 3 Secondary consumers are animals in the trophic level.
- 4 Top carnivores are animals in the trophic level.

5 Read the text about keystone species. Label the pictures with the names of the plants and animals shown.

Language Tip

Use ordinal numbers to talk about order: first, second, third, etc.

First, you need to research the topic.

Use **final** to talk about the last part of a process.

The **final** step is writing the report.

SPEAKING

- 6** Get in groups of four. Your teacher will pass out four cards with information about a different plant or animal. Tell your group the following information about your card:
 - Is it a carnivore, herbivore or omnivore?
 - Does it have any predators?
 - Does it have any producers?
- 7** As a group, work together to put your cards together in the correct order to make a food chain.



Why are elephants important?

Every animal in a food chain is important. However, some animals are more important than others. Keystone species are animals that are the most important in a food chain. If they are not there, the environment will change.

Elephants are the keystone species in the grasslands of Africa. This area is called the savanna. Elephants play a very important role. They are primary consumers, so they eat plants like acacia trees. There aren't many acacia trees in the savanna because elephants eat them. The grass grows more because there are fewer trees. Animals like gazelles eat the grass and lions eat the gazelles.

Without elephants, the acacia trees would become a forest. A forest would hide the sunlight from the grass and it would not grow. Without grass, the gazelles would move away to look for food. The lions would follow the gazelles because they also need to eat. Everything is linked, and it starts with the elephants. Without them, the food chain would change.



ENGLISH

1 Match the bold words from the text on page 17 with their definitions.

- | | |
|------------------|--|
| 1 trophic levels | a The links between plants and animals in an environment |
| 2 carnivores | b Animals that only eat plants |
| 3 omnivores | c An animal that hunts other animals |
| 4 consume | d To eat or drink something |
| 5 herbivores | e Animals that eat both meat and plants |
| 6 predator | f The different levels in a food chain |
| 7 food chain | g Animals that only eat meat |

2 Label the pyramid with the correct trophic levels from the word bank.

top carnivores • primary consumers • producers • secondary consumers

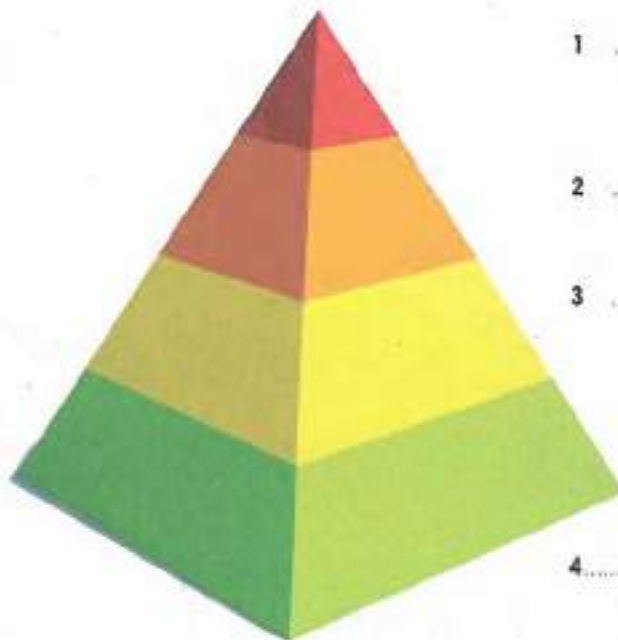
Trophic level

1 top carnivores

2

3

4



Types of animals or plants

1

2

3

4

3 Write the types of animals or plants for the trophic levels shown. Use the word bank to help you.

herbivores • omnivores • carnivores • top predator

4 In pairs, write animals that fit in each trophic level on the pyramid.

5 Unscramble the sentences, then order them a-d.

1 have / don't / animals / Finally, / called / predators / carnivores. / are / that / top

2 in / trophic / that / the / animals / meat / are / eat / level. / Third, / next

3 find / that / First, / are / producers. / need / plants / we / to

4 tree. / elephants / Second, / acacia / the / eat

6 Fill in the blanks with the words from the word bank.

linked • keystone species • producers • predators • herbivores

1 Food chains show how different animals in an ecosystem are

2 Camels and gazelles eat long grass because they are

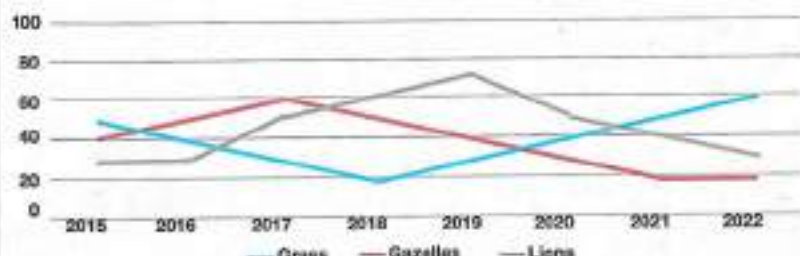
3 are the first trophic level of a food chain.

4 Animals that have the most important role in a food chain are the

5 Animals that kill and eat other animals are

7 Look at the graph, which shows the percentage of animals in three trophic levels in the African savanna. What happens when one of the species in the food chain is reduced? Use the graph to complete the sentences.

Changes in the African Savanna Food Chain from 2015 to 2022



1 When the number of gazelles went up,

2 When the number of lions went up,

3 Which of these is the keystone species? Why?



How does a food web work?

Think about a falcon. How many different things does it eat?
What is the difference between a chain and a web?

READING

- 1 Label each picture as 'chain' or 'web'.

a b



- 2 Read the text about a food web. Underline the different species, including both plants and animals.

- 3 Use the text to complete the food web. There are three missing species. Write the name of the species in the correct place.

- 4 Look at the sentences below. Read the text again. Are the sentences **True** or **False**? Write T or F.

- 1 Plants are only eaten by one thing.
- 2 Butterflies are primary carnivores.
- 3 Eagles are the top predator.
- 4 Snakes eat rabbits.
- 5 The herbivores are butterflies, rabbits and rats.
- 6 Eagles eat a variety of prey.

How food webs work

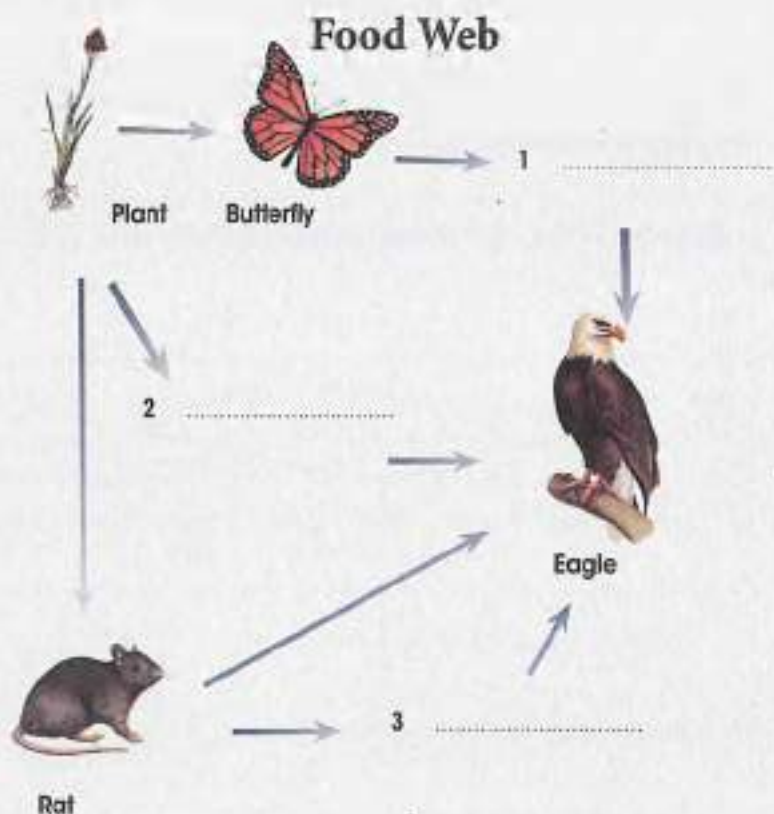
Food webs are different from food chains. Some top predators eat many different types of animals. For example, a lion eats zebras, gazelles, and hyenas. A food chain is simple, it starts when one animal eats one thing then another animal eats that thing. For example,

Plant → mouse → eagle

The mouse eats the plant. The eagle eats the mouse. When you connect food chains together, it becomes a food web.

The food web below has a producer, herbivores and consumers and a top carnivore. There are seven species in this food web. Some are predators; some are prey.

The producer is a plant. Butterflies, rabbits and rats eat the plant. These are herbivores. Lizards eat the butterflies and snakes eat the rats. These are carnivores. Eagles eat a variety of prey. They eat rabbits and rats. They also eat lizards and snakes. Nothing eats the eagle. This means the eagle is the top predator.



WRITING

5 Read the sentences below and circle the correct word.

- 1 The lion eats **also** / **both** antelopes and zebras.
- 2 Eagles eat rabbits. They **both** / **also** eat rats.
- 3 Both rabbits **also** / **and** butterflies eat plants.
- 4 Bears eat **both** / **also** fish and deer. They **and** / **also** eat grass and berries.
- 5 **Both** / **Also** bears and wolves eat deer **also** / **and** elk. They **also** / **both** eat birds and fish.



Language Tip

When using the word **both**, the word **and** is needed, too. For example:

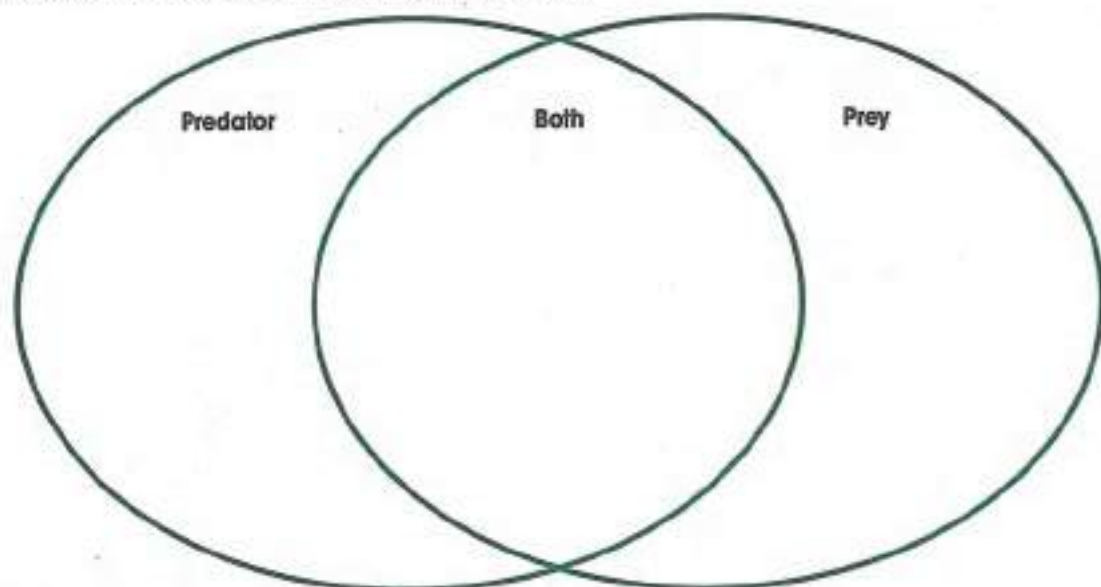
*The eagle eats **both** rabbits **and** rats.*

***Both** butterflies **and** rabbits eat plants.*

The word **also** can be used as an addition word. For example:

*Eagles eat both the rabbits and the rats. They **also** eat the lizards and the snakes.*

6 Use the diagram to organize the species from the food web.



7 Write some short sentences in your notes to describe the diagram.



ENGLISH

1 Match the words with its definition.

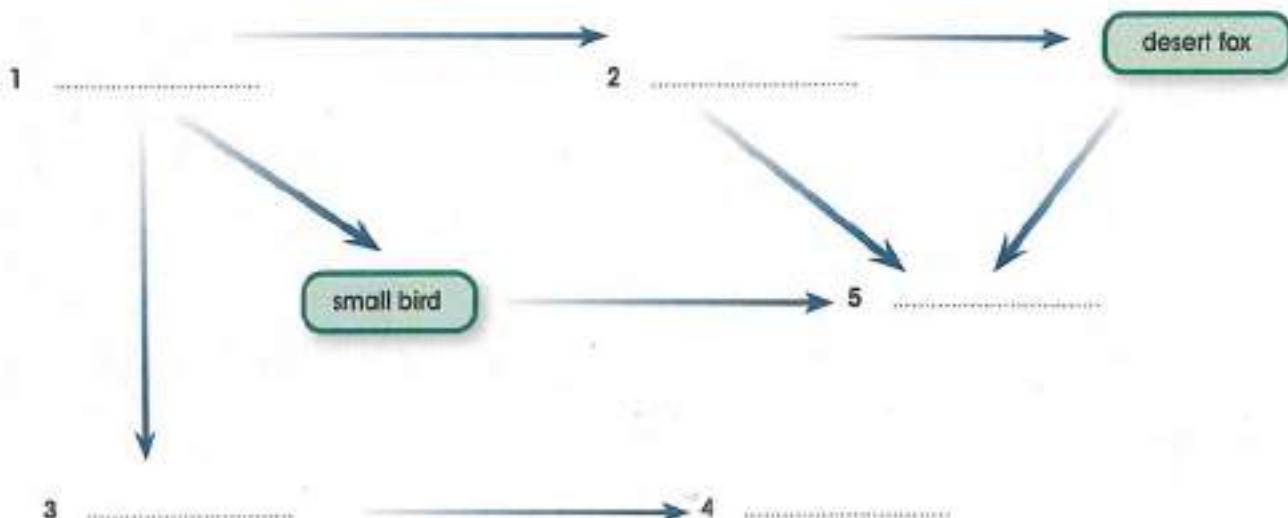
- | | |
|-------------|--------------------------------------|
| 1 prey | a Things linked together |
| 2 predator | b Lots of different things |
| 3 food web | c An animal that another animal eats |
| 4 connected | d An animal that eats other animals |
| 5 variety | e Many food chains put together |

2 Look at the sentences below. Fill in the spaces with the correct word from Activity 1.

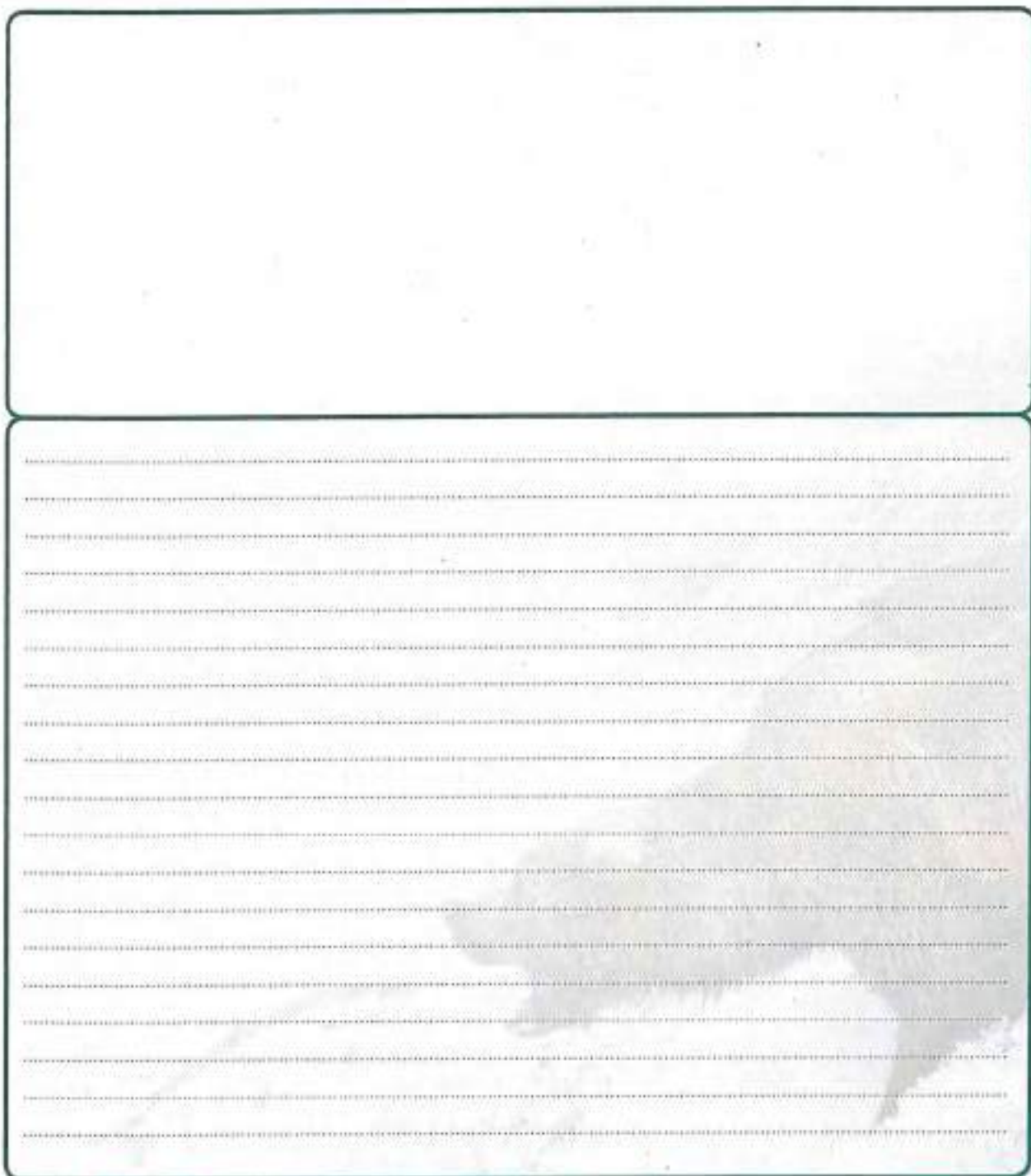
- 1 A falcon eats a of food.
- 2 A is different from a food chain.
- 3 Small animals are sometimes eaten by
- 4 A predator eats its
- 5 Many food chains are called a food web.

3 Look at the information in the table. Write the names of each species in the correct place on the food web.

Species	plant	lizard	small bird	goat	desert fox	caracal	falcon
What it eats	-	plant	plant	plant	lizard	small bird goat	caracal desert fox lizard small bird



- 4 Choose one of the food webs from the lesson. Write a short paragraph about it. Use diagrams to help explain the text.



Writing Tip

When writing an informative text, use diagrams to help you. You can talk about the diagram in the text so the reader knows they should look at it for more information.



ENGLISH

VOCABULARY

- 1 Complete the text with the vocabulary from the box.

protein • muscle • exercise • beans
spinach • vitamins • diet • garlic

People talk a lot about eating healthy food. We need to ¹ and eat a balanced ² to be healthy. Foods such as beans have the ³ our bodies need to build ⁴ Our bodies also need ⁵ We get these vitamins from foods like ⁶ Also, we can stay healthy by eating ⁷ to fight colds and the flu.

- 2 Complete each sentence with the correct word from the vocabulary box.

predators • diet • variety • save time
herbivore • recipe • ingredients
advertisement • heat • cut

- I need to eat a better so I can be healthier.
- If you want to, you should prepare your food the night before.
- There is a of choices to choose from.
- We followed a(n) so we could make the cake.
- Some of the included milk, eggs, and bread.
- An animal that just eats plants is called a(n)
- We saw a(n) on TV about a new perfume.
- You should your food before you eat it or it will be cold.
- Sharks are top that live in the ocean.
- She her orange into four pieces so we could all have some.

LANGUAGE FOCUS

- 3 Fill in the blanks with *and*, *both*, or *also*.

- It's good to eat both fruits vegetables during the day.
- Do you speak Arabic?
- Ahmed likes soccer and basketball.
- I ate pizza for lunch I also had it for dinner.
- We both like listening to the radio watching TV.
- The sports car is blue and it is fast.
- Hanan and Reem went to the park.

- 4 Choose *should* or *shouldn't* for each sentence.

- You eat healthy food every day.
- We play soccer today because the weather is bad.
- Ahmed write on the desk in class.
- Ali go to the hospital because he is really sick.
- She wear her jacket because it is cold outside.
- Mohammed drive so fast on the road.
- You be careful next time.
- You ask for help from the teacher.

- 5 Read the following instructions. Write the opposite imperative response to each.

1 Close the door!

.....

2 Take out your coursebooks!

.....

3 Don't eat the pizza!

.....

4 Don't open the window!

.....

5 Don't be nice to him!

.....

6 Drink the water!

.....

7 Write in your workbook!

.....

- 6 Sequence the sentences by labeling them *first*, *second*, *third*, and *last*. Then use the words from the word list to fill in the other missing information. Some words may be used twice.

date palm • producers • camel • meat • plant • lion • desert fox

- 1 in the food chain is the secondary consumers, which eat both and An example of a secondary consumer is the
- 2 in the food chain is the producers. An example of a producer is a
- 3 in the food chain is the top carnivores, which eat An example of a top carnivore is a
- 4 in the food chain is the primary consumers, which eat the An example of a primary consumer is a

Self-assessment

Read the statements and check the best description.

I can listen to an interview and find information.

I can persuade my friends to eat more healthily.

I can give advice about how to reduce food waste, using imperatives and modals.

I can read and understand texts about food chains.

I can write a short text about a food web

Yes Maybe No

<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
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UNIT 2

How Things Work

ENGLISH

Key Learning Objectives

- Listening** To listen to a podcast about robots and label the robot parts in a diagram.
- Speaking** To collaborate with peers to create and present a robot for a specific purpose.
- Language Focus** To understand and use relative clauses.
- Reading** To read a short informative text about the water cycle and link it to a diagram.
- Writing** To describe the properties of cleaning water in a sequenced text.





DISCUSSION

- Do you know what a robot is?
- What can robots do that we can't?
- Where does electricity come from?
- How often does it rain in the UAE? Why?



What is a robot? How do robots move?
What can robots do?

1 With your partner, name the parts of the human body that do the following:

brain • eyes and ears • heart • hands • skeleton

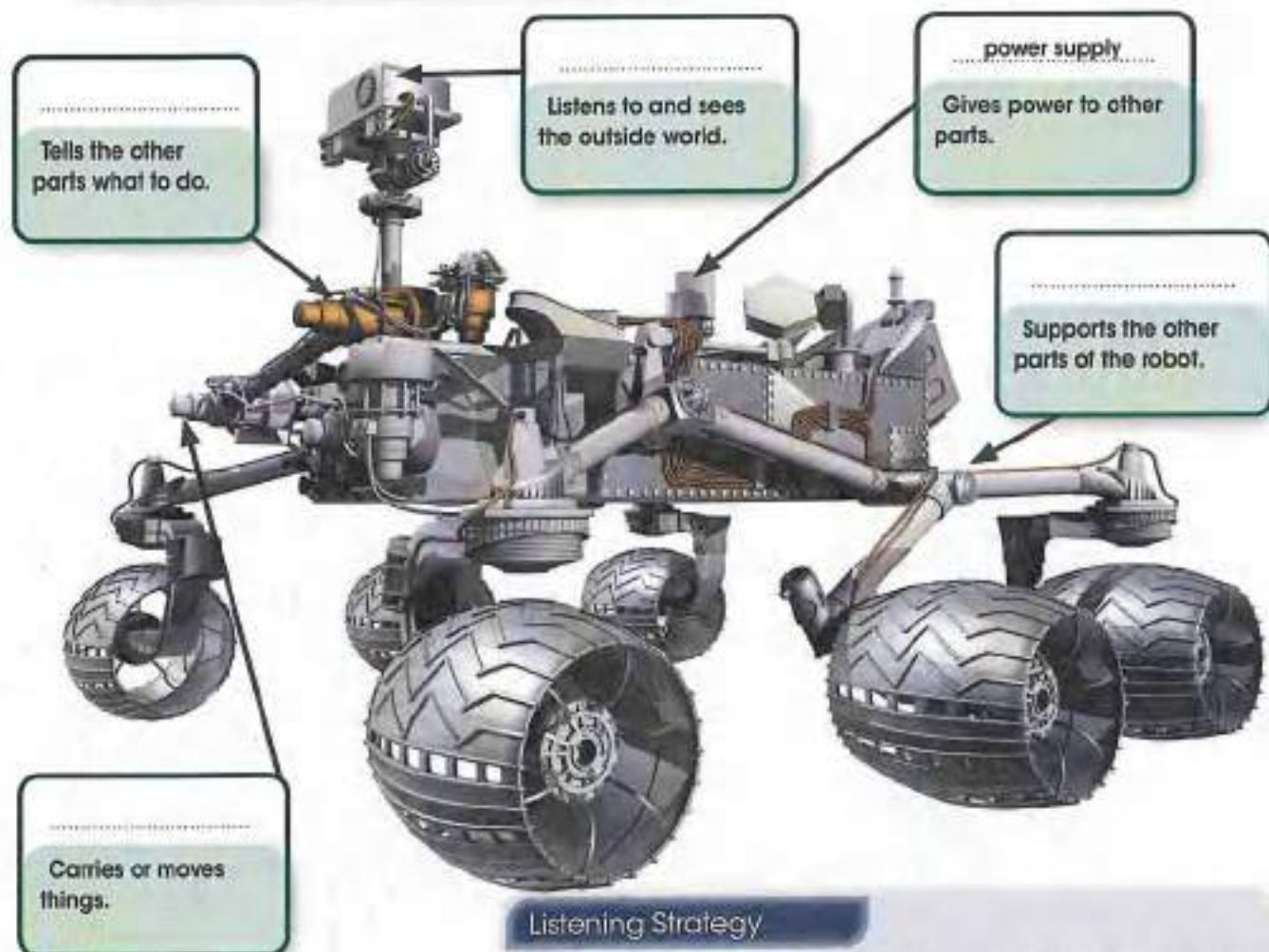
- 1 Carries and moves things.
- 2 Holds up the body.
- 3 Tells your body what to do.
- 4 Sees and hears.
- 5 Sends blood through the body.



LISTENING


2 Listen to a new documentary about robots.
Label the robot parts in the picture and match them to the definition.

frame • sensors • tool • control system • power supply



Listening Strategy

When doing listening activities, listen for key words. This will help you find the information you need. For example, if you wanted to learn more about a robot frame, you would listen for the word "frame".

- 3  You are an engineer working at a robot factory. Listen to the messages and write down which part of the robot is broken.

Message 1:

Message 2:

Message 3:


Message 4:

- 4 Get into pairs. Take turns saying what part is broken. Tell your partner why this part is important for the robot.

Speaking Tip

Remember that when you want the listener to focus on an important word, say it more slowly and louder than the words around it. This is called "stress".

SPEAKING

- 5  You will design a robot that does a specific job. Your teacher will give you a job. In your group, you will plan what your robot needs to do and what parts it will need. Use these questions to help you plan.

- What is the robot's name?
- What does the robot do?
- What parts does it need?
- What sensors does it need?
Camera? Microphone? Radar?
- What kind of frame does it need?
Strong? Small? Large?
- What tool does it need?
Hands? Knife? Hose?
- How will it move?
Wheels? Wings? Legs?

- 6 Give a group presentation to the class about your robot.



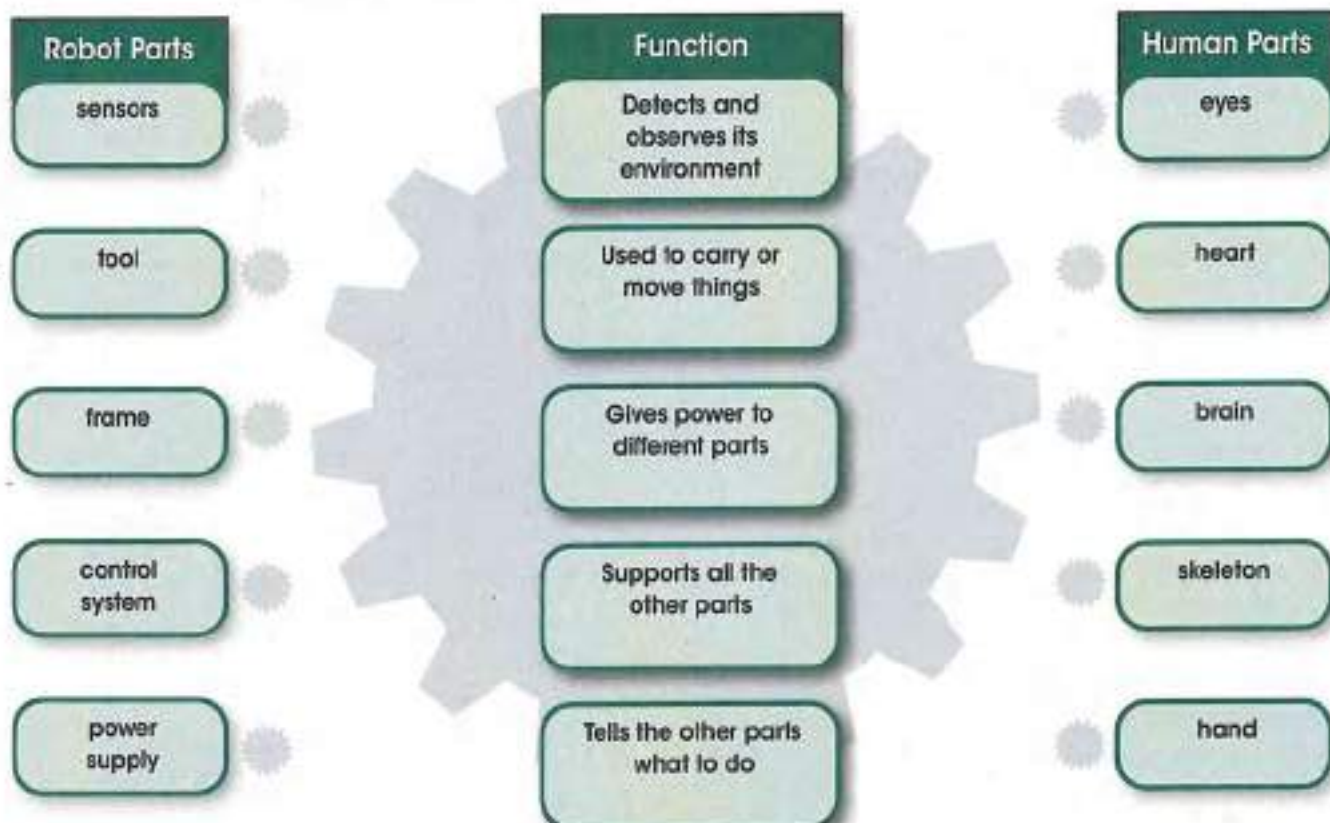
The robot needs to know how to do...
Our robot needs sensors that can...
Our robot needs tools which can...
Our robot needs a frame which holds up...





ENGLISH

1 Match the robot parts and the human parts with the functions they have.



Language Tip

You use **relative clauses** when you want to give some more information about the subject. A relative clause is a small group of words that come after the main clause. The relative clause gives more details about the subject and what it does. When you describe an object like a robot, you use pronouns like *which* and *that* to connect the relative clause to the main clause. For example:

A submarine is a boat **which** goes under water.

The Burj Khalifa is a skyscraper **that** was built in 2004.

Relative Clauses

2 Here are four robots. The robot's name says what it can do. Match the robot part to what it does.

- | | | | |
|--|---|---|---|
| 1 The Cleaner Robot has sensors | • | • | moves heavy things like a bed or couch. |
| 2 The Mover Robot has a strong frame | • | • | finds dirt and sand in a room. |
| 3 The Painter Robot has a tool | • | • | knows how much water a plant needs. |
| 4 The Gardening Robot has a control system | • | • | sprays fresh paint on walls. |

- 3 Look at the robots in Activity 2. Write four sentences with relative clauses, using *that* or *which* to connect the main clause and the relative clause.


1

2

3

4

- 4 Create a design plan of the robot you talked about with your group in Coursebook Activity 5. Label the parts of your robot.





What jobs do robots do?

ENGLISH

Do you have any robots in your home?

How do robots help humans?

VOCABULARY

1 Match the words to the images.

- | | |
|-------------|----------|
| 1 robot | C |
| 2 warehouse | |
| 3 shipping | |
| 4 recharge | |
| 5 weigh | |



READING

1 Read the texts below.

Student A: Read about shipping robots.

Student B: Read about cleaning robots.

How do these robots help us?



Shipping robots

A very large online shopping company uses robots – close to 50,000, in fact! But why so many? And what for? This company started using robots several years ago in its warehouses to make shipping really fast and easy. What are the robots like? They are square, 40 centimeters tall, and weigh over 140 kilograms – not very big, but really heavy! They can move at up to eight kilometers per hour and lift boxes weighing over 300 kilograms, so they are very fast and strong.



Cleaning robots

Robots are no longer only for businesses. Since the early 2000s, they have been in people's homes. One of these such robots is really small – a flat disc used to clean the floor. It is only nine centimeters tall, and this robot is very light at just under four kilograms. It travels at around a kilometer an hour, so it's not very fast. It can go for two hours without stopping to recharge. Having a clean floor is so easy now, thanks to this robot – it's perfect for people who are too busy to clean!

3 Read your text again and answer the questions.

- 1 Who uses the robots?
- 2 When did they start using them?
- 3 What do the robots do?
- 4 What shape are they?
- 5 How tall are they?
- 6 How much do they weigh?
- 7 How fast can they move?
- 8 What can they do?

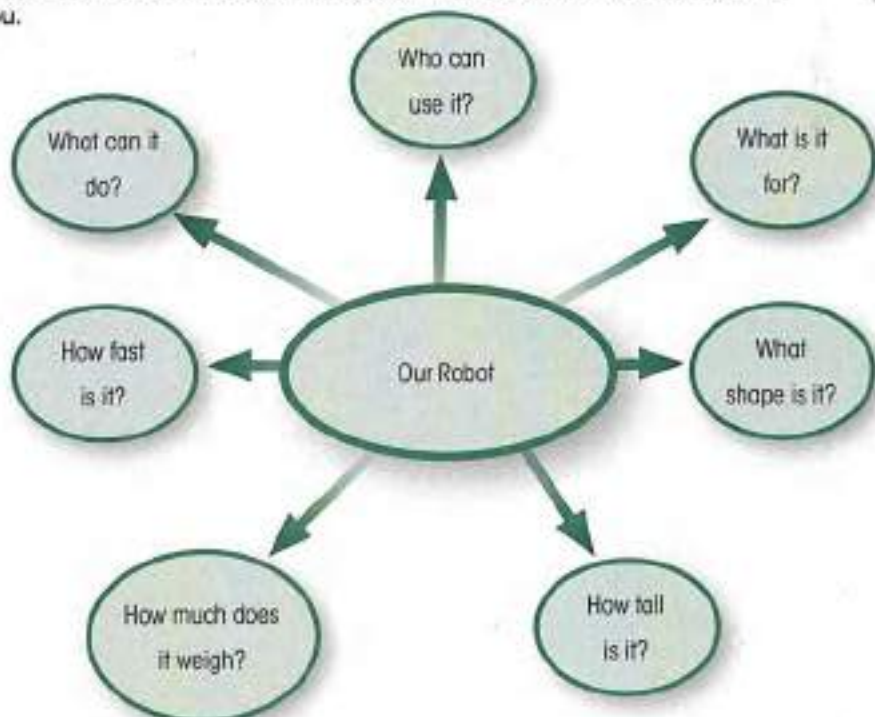
Did You Know?

The word *robot* was added to the English language from the 1920 science fiction play *R.U.R.* by Czech writer Karel Capek.

SPEAKING**4** Work in pairs with someone who read the other text. Ask and answer the questions in Activity 3.

Who uses the robots?

A large online shipping company uses them.

5 Work in groups to research an interesting robot being used in the world today. Use the graphic organizer to help you.**6** Present your robots to the class. Which one do you like the best?**Speaking Tip**

When giving a presentation, it is important to include intensifiers and adjectives in order to sound interesting and keep your audience's attention.



ENGLISH

1 Match the words to the sentences.

robot • warehouse • shipping • weigh
kilograms • centimeter • recharge • kilometer

- How much do you? Oh, I'm about 60 kg.
- When you buy something online, you often have to pay for the
- It's over a away, I'd rather drive than walk in the heat.
- I wish I had a to clean my house for me!
- I forgot to my cell phone and now the battery is dead.
- This morning the doctor told me that I am a few or so overweight.
- Online businesses sometimes have a where they store the things they sell.
- That picture on the wall isn't centered. Move it a to the left.

2 Complete the sentences.

too heavy • very easy • really large • really busy
very difficult • too small • very fast

In the 21st century, everyone is ¹.....! But life is ².....
now because of all the technology that we have. Things that were ²..... for people can
now be moved by robots. Our cell phones were almost ²..... but now have
²..... screens that are very bright. Computers are ².....
now, and can do more and more things. Life certainly isn't ²..... nowadays!

Language Tip

- Very, really, and so are intensifiers. They make adjectives stronger.
 - Very can always be used.
 - ✓ A very large online shopping company ...
 - Really and so are informal and are usually used in speaking.
 - ✓ ... to make shipping really fast and easy.
 - ✓ Having a clean floor is so easy now ...
- Too is used before an adjective to give a negative meaning.
 - ✓ ... people who are too busy to clean! (=so busy they cannot clean)

3 Decide if the sentences are correct (C) or incorrect (I).

- | | | |
|---|---|---|
| 1 I'm very busy today. Can I call you back later? | C | I |
| 2 Your car is too large and so comfortable! | C | I |
| 3 Maths can be very difficult. You need to study a lot. | C | I |
| 4 This robot works too fast. It's great! | C | I |
| 5 This phone is too small. It fits in my pocket. | C | I |

4 Complete the sentences.

- | | |
|-------------------------------|-----------------------------|
| 1 This box is very heavy. | a I can't lift it. |
| 2 This box is too heavy. | b It weighs over 100kg. |
| 3 He speaks really fast. | a He talks a mile a minute! |
| 4 He speaks too fast. | b I can't understand him. |
| 5 This city is really big. | a It has everything! |
| 6 This city is too big. | b I don't like it. |
| 7 This exercise is very easy. | a How boring! |
| 8 This exercise is too easy. | b I'm already finished! |

5 Draw a sketch of the robot your group researched in Coursebook Activity 5.

6 Write a description of the robot you researched using *very*, *really*, *so* and *too*.



How do you get energy from movement?

What is energy?

Where does energy come from?

SPEAKING

- 1 Look at the pictures. Can you name them?
Label the pictures with the words in the box.

blades • turbine • generator • shaft

**Kinetic Energy**

Kinetic energy is movement. We use movement from water and wind to get kinetic energy. This makes electricity.

How?**Wind Turbines**

A wind turbine gets energy from the wind and makes electricity.

Wind turbines are tall and they have blades which are 20 meters long. Wind turns the blades which spin a shaft. The shaft turns a generator which makes electricity. A wind farm is a group of wind turbines. Wind farms make a lot of electricity.

Hydropower

We can also use water to get energy. This is called hydropower. Hydro means water. We get hydropower when water from a dam turns a turbine. A dam is a big wall that stops water. There are doors in the dam so the water can get out. The water comes out of the dam and the energy from the water spins turbines. The turbines spin generators which make electricity.

- 2 How can you make electricity with these machines?

READING

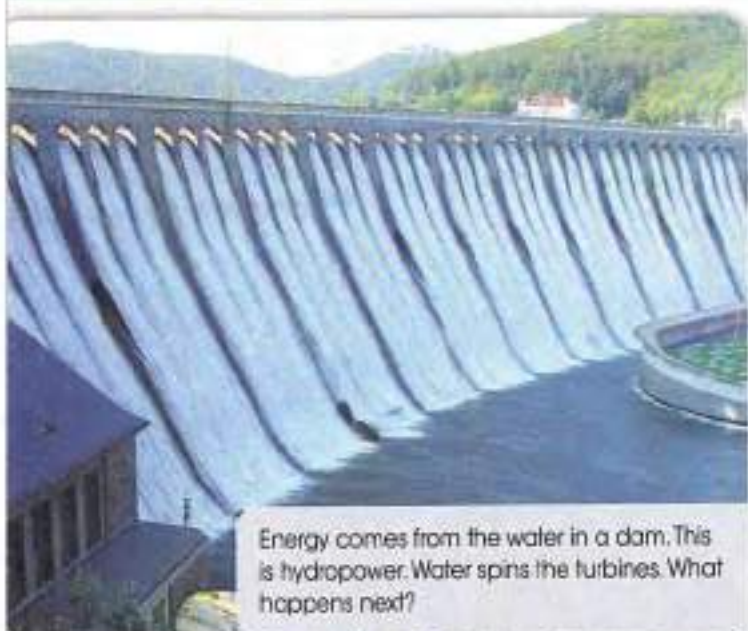
- 3 Read the text about wind turbines and hydropower.
Put the sentences in the correct order.

Wind Turbines

- The shaft turns a generator.
..... The generator makes electricity.
..... 1 Wind moves the blades.
..... The blades turn a shaft.

Hydropower

- Generators make electricity.
..... 1 Doors open in the dam.
..... Water falls on turbines.
..... Turbines spin generators.



Energy comes from the water in a dam. This is hydropower. Water spins the turbines. What happens next?



LANGUAGE FOCUS

4 Complete the sentences.

We use relative pronouns to start relative clauses.

¹ We use ¹ for people and

² or ³ for things.

5 Use information from the text to complete the sentences.

- 1 Kinetic energy is energy
that comes from movement.
- 2 A wind turbine is a machine that
from wind.
- 3 A dam is a
that
- 4 A generator is a machine that
- 5 A wind farm is a
that

Use of English

We use *who* to give important information about a **person** and *that* or *which* to give important information about a **thing**.

Do you know the **woman** who called?

I like the **game** that we play in class.

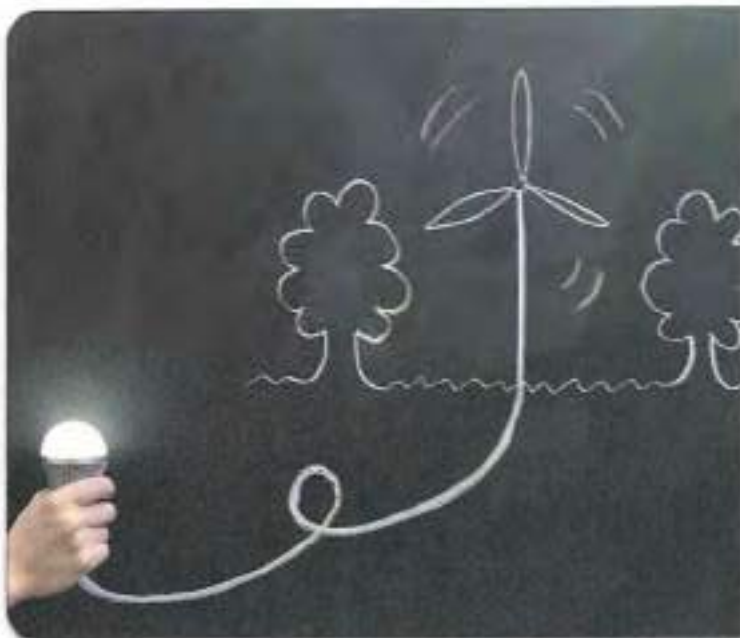
Relative clauses give us more information about a noun.

There are different types of relative clauses.

Defining relative clauses give important information about what we are talking about.

The **man** who makes wind turbines is an engineer.

A dam is a big **wall** that stops water.





ENGLISH

1 Write the correct relative pronoun: who or which.

- 1 Turbines are machines get energy from wind.
- 2 He is the man makes wind turbines.
- 3 I learned about machines make energy from electricity and water.
- 4 An oven is a machine heats food.
- 5 People study can pass their exams.

2 Put the relative clauses in the correct sentence.

that have clear water • which make electricity • that Omar likes

- 1 There are many beaches
- 2 Let's go to the park
- 3 Water from a dam moves turbines,

3 Complete the sentences with your own answers.

- 1 I want to go to a beach
- 2 I want to go to a park
- 3 that looks nice.
- 4 that makes me happy.

4 Complete the sentences so that they are true for you.

- A horse is an animal that I like.
- is the last movie that I watched.
- is the person who I sit next to at school.
- is the cousin who I talk to the most.
- is a food that I eat a lot.
- is the class that I like the most.
- is a book that I enjoyed.
- is the place that I visited in summer.

Now work with a partner and read one of your answers. Your partner will guess which sentence matches your answer.

"A horse."

"An animal that you like?"

"Yes!"



- 5 Write sentences about your partner's answers.
Remember to change the pronoun "I" and write the correct verb form.

Ice cream is a food that Ali eats a lot.

Oman is the place that Ali visited last summer.

- 1
- 2
- 3

- 6 Play the game: Guess the Word!

Choose two words from the list and describe them. Don't say the words!



Words					
air conditioner	oven	TV	bike	car	pool
bag	money	cup	pizza	keys	watch
smartphone	glasses	camera	light	tablet	hairdryer
.....

Which word did you choose?

Describe your first word:

It's something that

It's something that

It's something that



READING

1 Read the first paragraph. What is the water cycle?

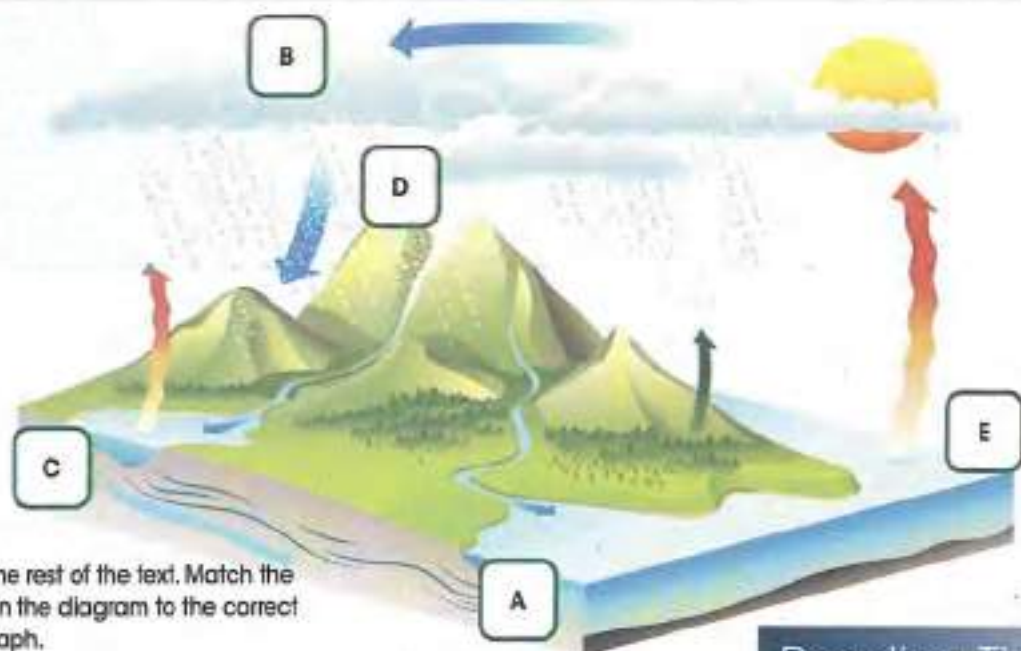
The Water Cycle

What is the water cycle? Well, the water cycle is the process of water moving around the Earth. ¹..... The process begins in lakes, rivers, and oceans. This is where water goes after it rains or after snow **melts** and becomes water. ²..... **E**..... Next, the sun **heats** the water that is in the lakes, rivers, and oceans. The heat **evaporates** some of the water, which means that the water turns from a liquid into a gas. This gas is called water vapor.

³..... The water vapor begins to rise into the air. This is because water vapor is lighter than other parts of the atmosphere. The higher the water vapor rises, the colder the atmosphere becomes.

⁴..... When water vapor cools, it starts to **condense**, which means that it becomes heavier. When the water is heavier, it begins to change from a gas into a liquid. This process is called condensation. The heavy water vapor changes into clouds which can be seen

high in the air. Clouds move from place to place and **combine** with other clouds. With all the water vapor from clouds, in the cold atmosphere, the water vapor begins to turn back into a liquid. ⁵..... Once the heavy water vapor turns into a liquid, which is called **precipitation**, it falls to Earth in the form of rain or snow. This completes the water cycle. What is the water cycle? The water cycle is the process of water moving around the Earth.



2 Read the rest of the text. Match the letters in the diagram to the correct paragraph.

3 Find verbs in the text that mean the following:

- 1 When two things are put together
- 2 When water vapor thickens and becomes a liquid
- 3 When water is heated by the sun and becomes water vapor
- 4 When ice or snow becomes water
- 5 When water becomes hotter from the sun

Reading Tip

Diagrams help us understand texts by illustrating the information. They are especially helpful when we talk about processes. When we have a text and a diagram, it is important to look at the diagram while reading to make our understanding of the important points stronger.

- 4 Complete the sentences with information from the text and the word in parentheses.

- 1 The process begins in lakes, rivers, and oceans.
..... (where)
- 2 Next, the sun heats the water (that)
- 3 The heavy water vapor falls to earth in the form of rain or snow (which)

- 5 Start the sentences with your own ideas.

- 1
is the time when I wake up every morning.
- 2
is the place where my family goes on holidays.
- 3
is the thing which I use the most often.
- 4
is the person who is my best friend.

- 6 Find one more example of a relative clause in the text on page 41 and underline it.

- 7 Read the text quickly. What is an *iceberg*?

- 8 Read the text again and answer the questions.

- 1 Where will the iceberg come from?
.....
- 2 Where will it be brought to?
.....
- 3 Where would the water evaporate from?
.....
- 4 What will form after the condensation thickens?
.....
- 5 What could happen after it rains?
.....

SPEAKING

- 9 Speak to a partner about the positives and negatives of bringing an iceberg to the desert.

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Changing the Water Cycle in the Desert

Many people have had ideas to try and change the water cycle in the Arabian Desert. One idea is to bring an iceberg, a huge piece of ice that floats in the ocean, from Antarctica to the coast of the Arabian Peninsula.

The idea is that water will evaporate from the top of the iceberg and rise into the air. This water would become water vapor. The water vapor will condense over the Arabian Peninsula. The condensation will thicken and form clouds. The precipitation falling from the clouds back to Earth would bring rain to the region. This could possibly turn parts of the desert into a green countryside.



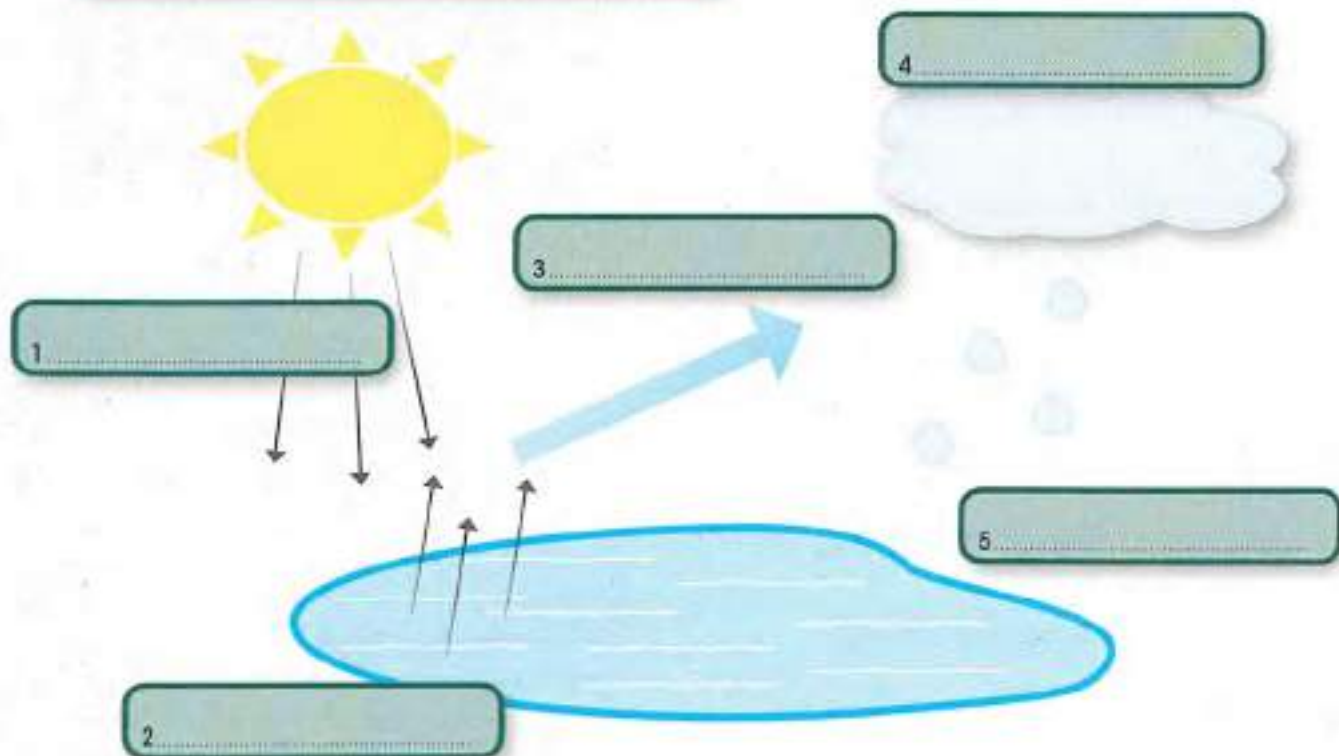
ENGLISH

1 Match the words to their definitions.

- | | |
|-----------------|--|
| 1 water vapor | a the process when water vapor becomes heavier and thicker |
| 2 precipitation | b water vapor joined together; can be seen in the sky |
| 3 atmosphere | c water which has been heated by the sun and is a gas |
| 4 clouds | d the air above Earth |
| 5 condensation | e rain or snow |

2 Label the diagram about the water cycle with the words in the word bank.

precipitation • evaporation • heat • condensation • clouds



Language Tip

You can use relative clauses in two ways:

- To give important information (defining relative clauses)
Ras Al Khaimah is the place where I go to relax on vacation.
- To give extra information (non-defining relative clauses)
Ras Al Khaimah, where my cousin lives, is my favorite place to go on vacation.

You can use the following relative pronouns:

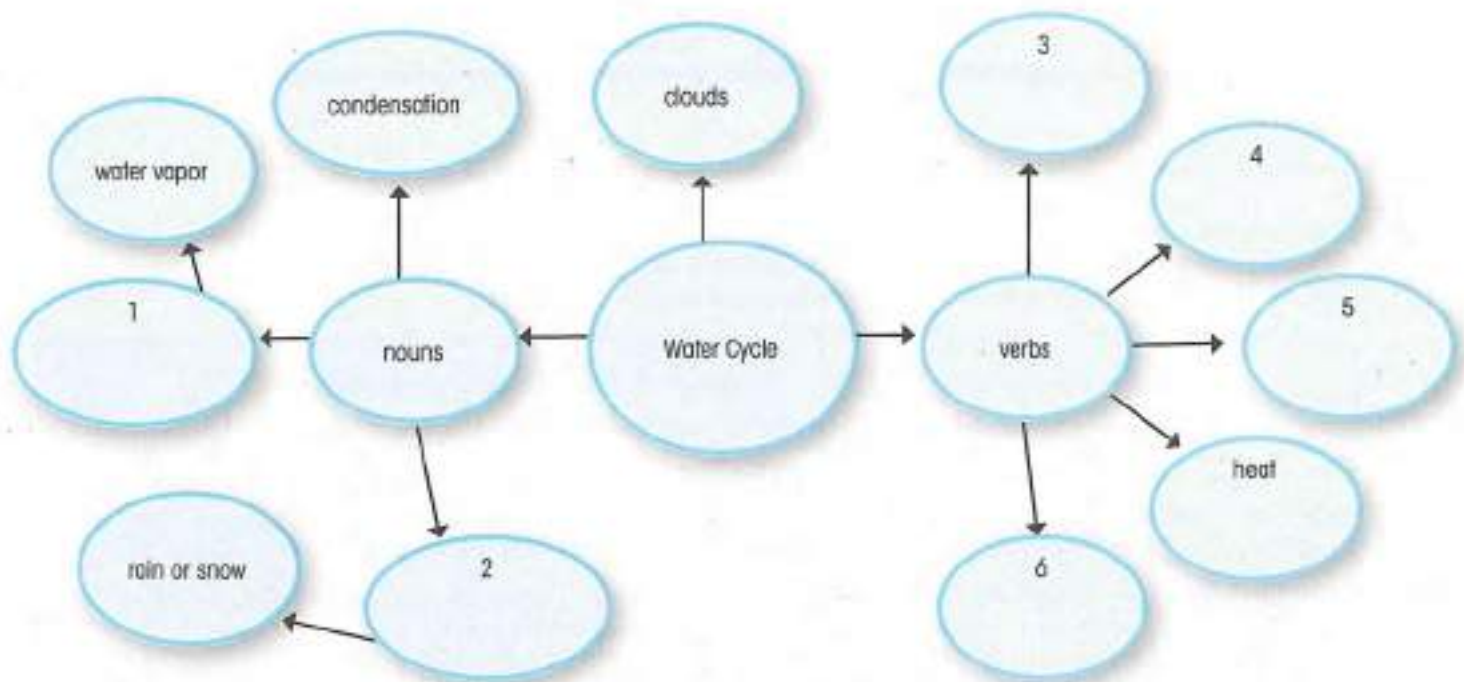
- who** for people: This is the man *who* works at the bank.
- which** for things: This is the piano *which* has been in my family for centuries.
- where** for places: This is the town *where* I grew up.
- that** for things or people. *That* can't be used in non-defining relative clauses.

- 3 Write a sentence with a relative clause using each of the relative pronouns: **who, which, that** and **where**.

- 1
- 2
- 3
- 4

- 4 Complete the notes with key vocabulary words from the word bank.

precipitation • evaporation • condensation • combine
heat • condense • melt • evaporate



- 5 Think of positive and negative ideas about bringing an iceberg to the desert.

Positives	Negatives



How do we make drinking water?

Think about a typical day. How many times do you use water? What for?
Imagine you had no clean water. What kind of problems would this cause?

LISTENING

- 1 Listen to the poem. What are the people wishing for?

VOCABULARY

- 2 With a partner, complete the information in the table for each word in the box. Write in the notes section of your book.

clean • filter • lake • tank • pipe • chemicals • store • flow

Word:	Definition:
Part of speech:	Example sentence:

Language Tip

Sequencing is when you put something in a particular order.

First, the water comes into the pipe from the river.

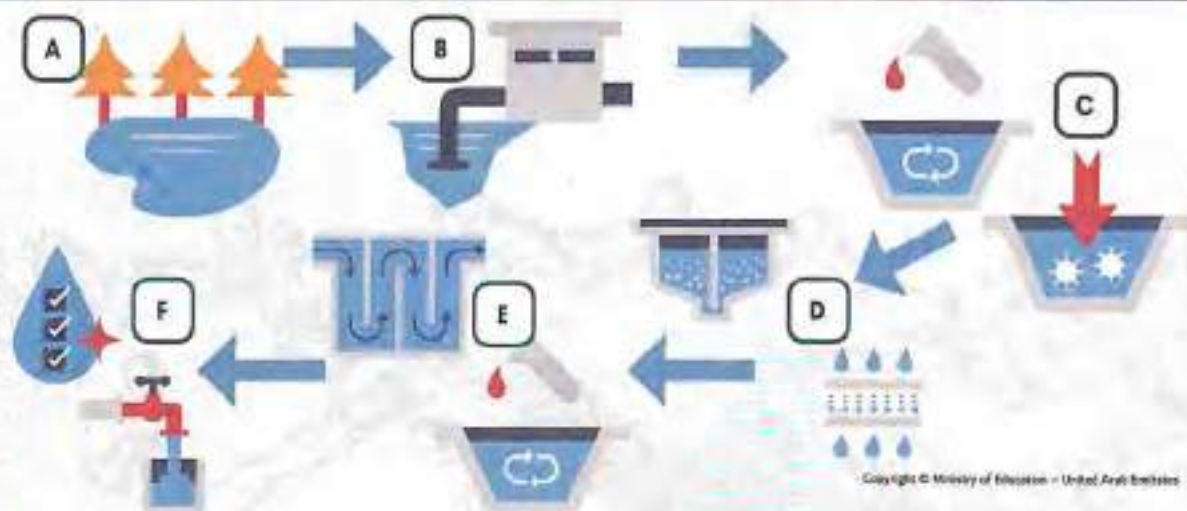
Finally, the water will be clean enough to drink.

READING

- 3 Read the first paragraph. Why is cleaning the water we use important?

Cleaning the water we use every day is very important. Think about the many ways we use water, from drinking it to cleaning ourselves. Having clean water also keeps us healthy. So, it is important for there to be ways to clean the water we use. We can clean water in several steps. Let's talk about each one below.

1 when it rains in the mountains, the water comes down and goes into lakes and rivers.
2 because the water is not clean enough for us to use, it is taken away to begin the cleaning process.
3 chemicals are added to the water that make the dirt stick close together. This step is important because the dirt forms into big pieces, heavy enough to fall to the bottom. 4 water goes into another tank and the big rocks of dirt are taken away from the water by falling to the bottom. The water goes on through to the next step without big pieces of dirt. 5 water goes through another tank with thin sheets that catch the smallest pieces of dirt. This important step makes the water dirt-free as it moves on. 6., after all the bigger, unhealthy things are taken away, more chemicals are added to the water. These chemicals take away any other bad things that leave clean water for us to use.
This completes how we clean water. Cleaning the water we use every day is something we should always do and hopefully it will always help us to have a long healthy life.



- 4 Look at the diagram. Fill in the spaces in the text in Activity 3 with the correct sequence words from the box.

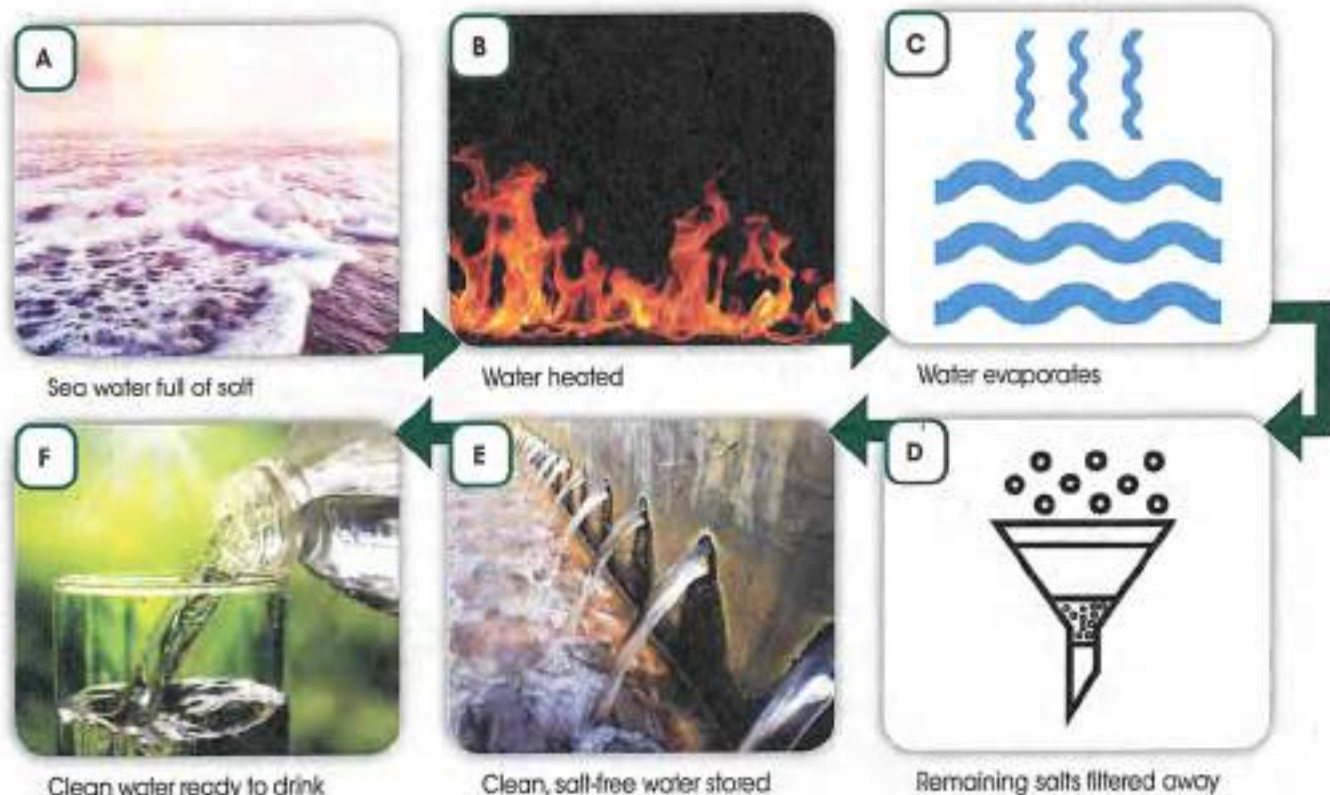
Finally • Third • After that • Second • First

- 5 Complete the sentences to summarize the process described in Activity 3.

.....rain falls in the mountains. Second, the rain water flows from the down into lakes and rivers. Third, take the water from the and lakes to a cleaning station. that, the dirty water goes into many that the dirt out to create water. the clean water is in tanks and later delivered in pipes to our

WRITING

- 6 Look at the diagram below. What does it show? Discuss with a partner.



- 7 How could you summarize the process shown in Activity 6? Discuss with a partner and make notes.

Writing Tip

When writing a summary of a process it is important not to rewrite the original text. You need to keep your summary short and use your own words. In addition, you should refer to the main ideas in the original text. Lastly, when writing a summary that describes a process you should use **sequence words** like *first*, *second*, *third*, *next*, *after that*, and *finally*.



ENGLISH

1 Match each word with the correct meaning.

- | | |
|-------------|--|
| 1 store | a to pass a liquid through a piece of equipment to remove solid pieces or other substances |
| 2 filter | b not dirty |
| 3 pipes | c a large area of water that has land all around it |
| 4 chemicals | d a large container for storing liquid or gas |
| 5 lake | e a long tube that liquid or gas can pass through |
| 6 tank | f a basic substance that is used in chemistry or produced by chemistry |
| 7 clean | g to put something somewhere and not use it until you need it |
| 8 flow | h a smooth continuous movement of a liquid |

2 Unscramble the letters to make the correct sequence word. Afterwards, put them in order.

- | | |
|--------------|---|
| 1 HENT | 1 |
| 2 LINFLAY | 2 |
| 3 ATFER HATT | 3 |
| 4 DTHIR | 4 |
| 5 EXNT | 5 |
| 6 TFISR | 6 |
| 7 CSONDE | 7 |

Language Tip

We use sequence words to show the order of events, especially in describing the process of how something is done from start to finish.

3 Describe your day yesterday using any of the sequence words from the box.

first • then • after that • second • third • finally • next

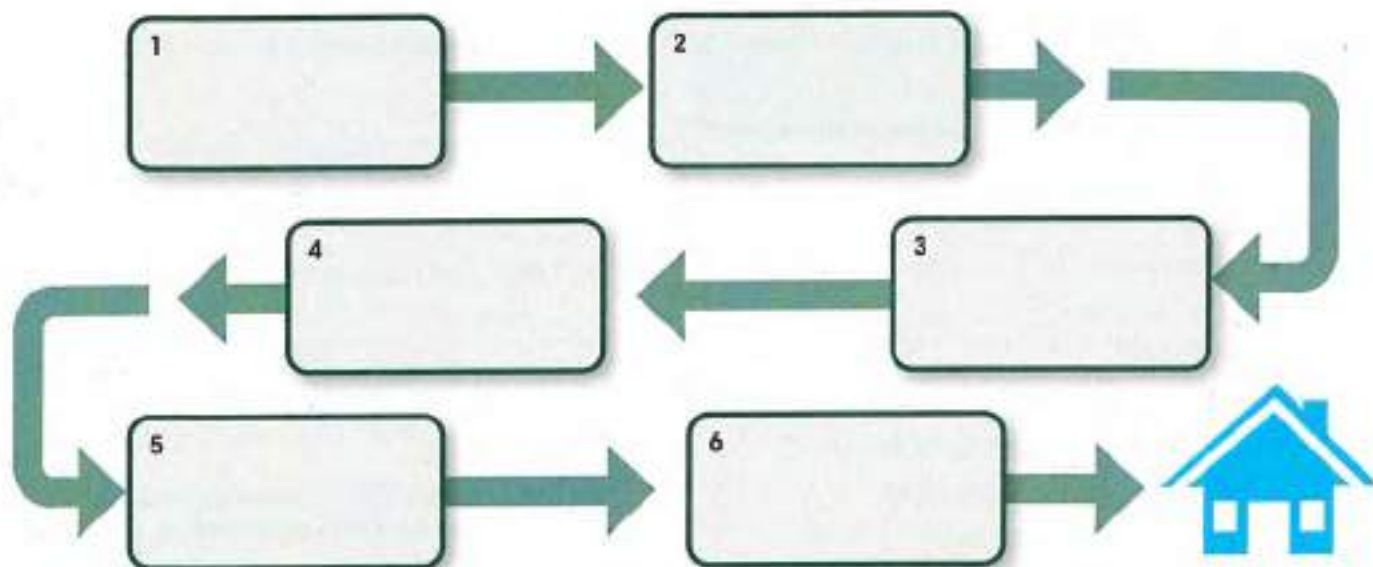
1., I woke up at (time) 2.
3., I washed and ate breakfast. 4.
5., I went to school at (time) 6.
- Then, I arrived at school. At school, I went to my first lessons which are (lessons)
7. I had
- a break at (time) 8.
9.
10. I went to my last lessons which were (lessons) 11.
12., at (time)
13. I went home.

Writing Tip

Use the sequence words to order events.

first - second - next - third - then - after that - finally

- 4 Plan your summary of the water cleaning process shown in Coursebook Activity 6. Use the diagram below to help you.



- 5 Write your summary of the water cleaning process shown in Coursebook Activity 6. Use your planning notes from Activity 4 above.

.....

.....

.....

.....

.....

.....

.....

- 6 Read your task above. Check (✓) the boxes below if the answer to the question is yes.

Is there information about the process of cleaning water?	Is the process of cleaning water ordered correctly?	Are the sequence words used correctly?



ENGLISH

VOCABULARY

- 1 Complete the sentences with the words from the box. One word is not used.

robot • engineer • warehouse • turbine • rainfall
heat • chemicals

- 1 An builds things such as cars, machines, and buildings.
- 2 There is more in the winter than in the summer.
- 3 We feel the from the sun more in the summer.
- 4 A can generate a lot of electricity when the wind is strong.
- 5 There are 100 cars stored in the
- 6 A can do lots of things faster than humans.

LANGUAGE FOCUS

- 2 Underline the correct noun and relative pronoun in each sentence. Example:

The arm of the robot that picks things up is strong.

- 1 A computer that gets too hot may shutdown.
- 2 This is our cat, which we have had for a long time.
- 3 I need a bag that can carry all of my books.
- 4 I have a brown table in my bedroom that I do my homework on.
- 5 The cleaner robot has wheels which help it move around the house.

- 3 Put the sentences in the correct order.

- 1 books / the / scientist / man / is / that / a / writes
.....
- 2 engineer / friend / cars / that / is / my / builds / on
.....
- 3 the / Omar / beach / go / that / let's / to / likes
.....
4. which / get / turbines / energy / are / wind / from / machines
.....

SPEAKING

- 4 In pairs, ask and answer the question below. Use the words *that* and *which* to explain what the robot's parts are for.
- What robot do you think should be in the school and what should it do?

VOCABULARY

- 5 Put the words in the box under the correct heading in the table.

cloud • chemical • distribute • weigh • turn
electricity • sensor • recharge

Noun	Verb



UNIT 3

It's a Small World

ENGLISH

Key Learning Objectives

Listening To listen to short recordings about why people learn a second language and determine the reasons.

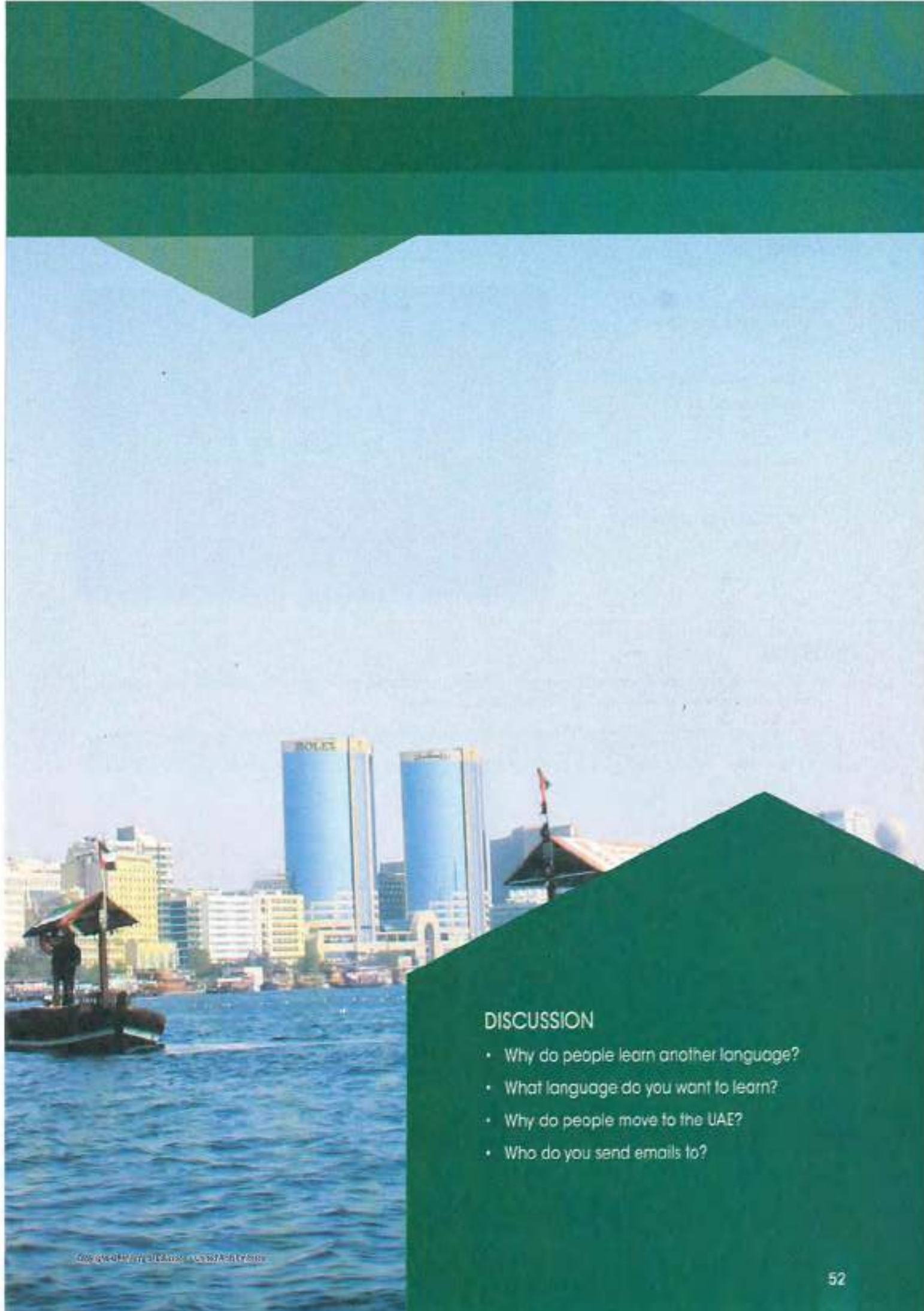
Speaking To lead and participate in group discussions about current events.

Language Focus To use a range of quantifiers to describe where food comes from.

Reading To read an email describing the different ways to travel in the present and past.

Writing To write an email informing a friend on what to do and see in the UAE.





DISCUSSION

- Why do people learn another language?
- What language do you want to learn?
- Why do people move to the UAE?
- Who do you send emails to?



Why do people speak a second language?

What is the first language you learned?

What is your second language?

SPEAKING

- 1 Ask the following questions with your partner. Take notes of their answers.

- What other language do you want to learn?

.....

.....

.....

- Why do you want to learn this language?

.....

.....

.....



LISTENING

- 2 A local radio show asked five Emirati teenagers about second languages. Listen to the recording. Write down the name of each teenager and the second language they are learning.

Teenager 1

Name:

Second Language:

Reason for learning a second language:

Teenager 2

Name:

Second Language:

Reason for learning a second language:

Teenager 3

Name:

Second Language:

Reason for learning a second language:

Teenager 4

Name:

Second Language:

Reason for learning a second language:

- 3 Listen to the interviews again. Note down the reasons why each teenager is learning a second language.

Teenager 5

Name:

Second Language:

Reason for learning a second language:

SPEAKING

- 4 Do a survey of students in your class. Find out what second languages your classmates are learning and the reason. Look at the example for help.

- Ask each classmate what second languages they speak and the reason they learned this language.
- Ask ten classmates and fill out the information in the data table below.

Name	Saif
Language	Spanish
Reason	Travel to Spain

Listening Strategy

When you are listening for a reason, listen for key words like *because*, *so* and *but*.

For example, Ahmed says: "I went to the doctor today **because** my stomach hurt." Why did Ahmed go to the doctor? **Because** his stomach hurt.



Name	1	2	3	4	5
Language					
Reason					
Name	6	7	8	9	10
Language					
Reason					

- 5 Once you have the data, compare your results with another classmate. Discuss the following questions:

- What is the most popular language? The second most popular? The third?
- Why are most students learning another language?
- How will learning these languages help in their lives?



ENGLISH

1 Match the words to their definition.

- | | |
|-------------------|--|
| 1 business | a Describes people, things, or places from another country. |
| 2 foreign | b A store or company that makes money. |
| 3 visit | c To change the words from one language to another language. |
| 4 reason | d To go to another country. |
| 5 second language | e To talk with or write to other people. |
| 6 communicate | f Why you do something. |
| 7 translate | g Any language you know that is not your first language. |

2 Look at the countries on the map. Each of these countries speaks a different language. Match the language to the country. Write them in the correct box.

Spanish • English • Chinese • Arabic • German • French

What other languages do you know? Write them down in the blank box and draw a line to the place on the map.

Germany:

China:

England:

France:

Spain:

UAE:

.....

.....

- 3 Look at the list of countries. Can you find them on the map? Can you guess the languages for these countries? Write them down and check with a partner:

- 1 Japan:
- 2 Korea:
- 3 Oman:
- 4 Italy:
- 5 Russia:

Vocabulary

Many languages have a name that is similar to the countries they come from. For example, the language of Mongolia is Mongolian.

Popular suffixes for languages are:

-ian, -ean, -ic, -ish, -ese

- 4 You use **because** to give a reason why you are doing something. Look at your notes from Activity 2 in the Coursebook. Write a sentence using **because** to say why each teenager learned another language.

- 1 Saeed is learning French because he wants to run his family's business.
- 2 Zayed
- 3 Alla
- 4 Jamila
- 5 Badier

- 5 You want to know why the teenagers are learning a second language. Take your answers from Activity 4 and turn them into questions and answers.

- 1 Why is Saeed learning French?
Because he wants to run his family's business.
- 2
- 3
- 4
- 5

- 6 Discuss in groups why you are studying different subjects, like science, math, English, and Arabic at school. Use **because** to give your reasons.

"Why are you studying science?"

"Because I want to be an engineer."

READING

- 1 Read the discussion from an online forum about the Abu Dhabi Grand Prix. Do people think having the event is positive or negative?

Chibi



Sept. 9
Senior Member

This November Formula 1 will return to the UAE. The final race of the season will be the Abu Dhabi Grand Prix at Yas Viceroy Circuit. As an F1 fan, I believe that having the race in the UAE has a lot of pros – for example, the money it makes. I suppose there may be some cons, as well, though. What do you think?

I believe that having an F1 race is all pros for Abu Dhabi, because of all the **money** made from ticket sales, hotels, and restaurants.

Sept. 9
Member 503



Sept. 10
Member 211

I think so, too. However, bringing thousands of people to Abu Dhabi for a few days must affect **the environment** because of all the water they use.

I agree – there is definitely an environmental impact. However, I think the worst part is all the noise!

Sept. 12
Guest 01



Sept. 12
Guest 03

I disagree. Abu Dhabi is **famous** because of Formula One, so it's a good thing!

Absolutely! People **visit other places** in the emirate and the country because of the Grand Prix.

Sept. 15
Member 191



Sept. 15
Member 233

F1 fans often **fly with airlines from the UAE**, this makes much business for the airlines because many people choose to fly with them again.

I tried to book a hotel room during a big F1 race and it was impossible. When events like these take place, there are always **too many people** in the city.

Sept. 16
Guest 09

- 2 Read the forum discussion again. Complete the chart with the pros and cons from the text.

Pros	Cons
money	



SPEAKING

3 Decide how much you agree or disagree with the ideas from Activity 2.

Statement	Completely Agree	Agree	No Opinion	Disagree	Completely Disagree
Member503					
Member211					
Guest01					
Guest03					
Member191					
Member233					

4 Discuss your ideas from Activity 3.

I think making money is a pro.

I agree.

5 Read the sentences. In groups, discuss how much you agree or disagree. Use the phrases from the Speaking Tip.

- + Sports teams should only use local players.
- + Golf courses use too much space and water.
- + The Olympics should be held every year.
- + Governments should spend money on all sports, not only soccer or Formula 1.
- + Holding big sporting events like the Olympics is too expensive.

Speaking Tip

You can use the following expressions to show interest when having a conversation.

- Me, too.
- I agree.
- I don't agree. / I disagree.
- I'm not sure.
- I think so, too.
- I don't know.

For example:

A: *I think the Abu Dhabi Grand Prix has made the emirate famous.*

B: **Me, too.** Now more people visit the UAE.

A: *I believe hotels and restaurants make a lot of money because of the race.*

B: **I don't know.** There are always lots of people visiting the UAE.

I don't think sports teams should use only local players. I think they should use players from all over the world.

I agree. Having international players is much more exciting!





ENGLISH

1 Unscramble the words.

- 1 oneelnirnmvia aptime
- 2 Gdina xPir
- 3 raoflum Oen
- 4 cera
- 5 yisno
- 6 mtruo
- 7 aumafs
- 8 snfa
- 9 kate lpcas
- 10 obko



2 Write in the words from Activity 1, then match them to the correct definition.

- | | |
|------------------------------|---|
| 1 environmental impact | a an Internet discussion page |
| 2 | b a competition with cars to see who is the fastest |
| 3 | c the effect on nature and the planet |
| 4 | d loud; too much sound or volume |
| 5 | e happen; occur |
| 6 | f a very important race |
| 7 | g people who like something/someone a lot |
| 8 | h to reserve; to make plans |
| 9 | i someone who is well-known; a star |
| 10 | j the highest type of car racing |

3 Choose three pros/cons from the text in the Coursebook. Write sentences with because.

- 1 Because of ticket sales, hotels, and restaurants, the Abu Dhabi Grand Prix makes a lot of money for the emirate.
- 2 Because of
- 3 Because of
- 4 Because of



4 Match the sentences.

- | | |
|---|--|
| 1 Burj Khalifa is amazing! | a I disagree. I prefer winter. |
| 2 Dubai Mall is the best mall in the UAE. | b I agree. It's the tallest building in the world, too. |
| 3 Dubai has the best beaches. | c I'm not sure. Fujairah also has some incredible beaches. |
| 4 Summer is the best season. | d Me, too. It's so exciting to watch. |
| 5 I love Formula One racing. | e I don't know. Ibn Battuta Mall is really interesting. |

5 Work in pairs. Complete the sentences with your ideas.

- I think the Abu Dhabi Grand Prix has made the emirate famous.
Me, too. Now more people visit the UAE.
- I believe
I disagree
- In my opinion
I'm not sure
- I feel
I think so, too
- I don't think
I don't agree

6 In groups, share your ideas from Activity 5. Choose a topic and write your group's ideas as an online forum.

Where does your food come from?

ENGLISH

What food grows in the UAE?

What food grows in other countries?

READING

- 1 Look at the poster. Circle the countries and continents in the text and label them on the map.



Dates

The Middle East has the perfect weather for dates to grow.

The UAE grows around 44 million date palm trees and they produce many types of dates. Do you know how many?

India buys a lot of dates from the UAE.

Cocoa

Cocoa trees grow 20° north and south of the equator. Cocoa trees grow in hot, rainy countries. Today, most cocoa beans come from crops grown in West Africa. Cocoa beans make chocolate. It takes about 1,000 cocoa beans to make 1 kg of chocolate.

Rice

India and China grow and produce the most rice in the world. People in Asia eat a lot of rice. Some of the rice we eat also comes from Indonesia, Thailand, and Vietnam.



Tea

The UAE buys a lot of tea. It comes to Jebel Ali, where it is mixed and then sent to other countries. Jebel Ali is one of the biggest ports in the world, so it can send tea to many countries. Most of the tea in the world comes from tea plants in Sri Lanka, India, Kenya, and China.



Did You Know?

The most important food crops in the world are rice, corn, and wheat. Where do they grow?

- 2 Read the information in the poster and answer the questions.

- 1 How many cocoa beans do you need to make 1 kg of chocolate?

.....

- 2 Which country buys dates from the UAE?

.....

.....

- 3 Which two countries make the most rice?

.....

.....

- 4 Which countries make a lot of tea?

.....

.....

LANGUAGE FOCUS

- 3 What do you eat every day?
What do you use when you cook?
Think of nouns and put them in the correct box.

Countable Nouns

cup

Uncountable Nouns

water

- 4 Choose the best quantifier for each sentence. Use the text to help you.

- The UAE grows date palm trees.
- People in Asia eat rice.
- The UAE doesn't grow rice.
- of the rice we eat comes from Vietnam.
- How cocoa beans come from West Africa?
- India buys dates from the UAE.

- 5 Use the text from Activity 1 and ask questions to quiz your partner.

For example:

Where do cocoa trees grow?

Where does tea come from?

Write three questions below.

-
-
-

Use of English

Quantifiers come before a noun. They tell you about the amount of a noun (how much or how many).

some a few = a small amount
a lot much many = a large amount

	Countable plural nouns	Uncountable nouns
some	✓	✓
a little		✓
a few	✓	
a lot of	✓	✓
much		✓
many	✓	

Answer the questions.

Which quantifiers do you use in negative sentences and questions?

Which quantifiers can you use with both countable and uncountable nouns?

Vocabulary

A **crop** is a plant that we eat.

Date palms in Fujairah ▼





ENGLISH

1 Answer the questions and talk to your partner about your ideas.

- 1 What is your favorite meal?
- 2 What foods are in it?
- 3 Where do you think these foods come from?

2 Put the words in the correct categories.

a bar of chocolate • milk • a bottle of water • water • dates • bananas • a cup of tea • honey • nuts • a lot •
some • a little • a few • many • much

Countable Nouns

Uncountable Nouns

3 Read the sentences and decide if they are correct ✓ or incorrect X.

- 1 There are a lot of water in the ocean.
- 2 There is a little milk in the bottle.
- 3 There is a lot of dates in the palm tree.
- 4 We have a few palm trees.
- 5 How many bottles of water do you have?
- 6 How much bananas do you have?

4 Match the words to make sentences.

- | | |
|---------------------------|--------------------------------|
| 1 How much | a milk in my tea? |
| 2 How many | b food will be more expensive. |
| 3 In the future, a lot of | c food do you eat every day? |
| 4 Put some | d dates do you want? |
| 5 Can I have a little | e honey on your bread. |

- 4 Use information in the text to complete the tables.

Traveling through time

The way we travel has changed a lot over the last 100 years. Before the 1960s, many people traveled to other countries by ship. This was the easiest and cheapest way to travel. However, this changed very fast when people made faster airplanes. Today, we are usually only a few hours flight away from anywhere, so you can save a lot of time.

In the 1950s, if you wanted to travel to New York from London by ship, it took 3 days and 12 hours. That was on the fastest ship. Now, if you want to travel the same route, it only takes about 8 hours to fly between the two cities.

To get to Sydney, Australia it took even longer. In 1950, it took about 28 days to travel by ship. Now, it takes only 22.5 hours by airplane.

In the future, new travel technology might surprise some people. This is because travel time will get less and less.

Traveling time by ship in 1950 and plane in 2019 from London to New York

By ship in 1950 (in days)	By plane in 2019 (in hours)
1.	2.

Traveling by ship in 1950 and plane in 2019 from London to Sydney

By ship in 1950 (in days)	By plane in 2019 (in hours)
3.	4.

- 5 Complete the sentences using words from the text.

- Before the 1960s, people traveled to other countries by ship.
- Today, we are usually hours flight away from anywhere...
- ...so you can save time.
- In the future, new travel technology might surprise people.

- 6 Use the table below to complete a class survey. Ask your classmates the questions and circle their answers.

HOW DO YOU TRAVEL?					
Questions	Student 1	Student 2	Student 3	Student 4	Student 5
How do you travel to school?	A. on foot	A. by foot	A. by foot	A. by foot	A. by foot
	B. by bus	B. by bus	B. by bus	B. by bus	B. by bus
	C. by car	C. by car	C. by car	C. by car	C. by car
How do you like to travel on vacation?	A. by car	A. by car	A. by car	A. by car	A. by car
	B. by ship	B. by ship	B. by ship	B. by ship	B. by ship
	C. by airplane	C. by airplane	C. by airplane	C. by airplane	C. by airplane

- 7 In groups, discuss the differences between how you travel and how your grandparents travelled.

5 Use the words in the box to complete the sentences.

a few • some • many • lot of

- 1 There are a places you can travel to from the UAE.
- 2 There are different ways to travel.
- 3 people like to travel by ship; others like to travel by air.
- 4 Only people travel from Dubai to Manama by ship.

6 Look at the results of your survey. Use the tables below to record the data from your survey, and the data from your group's survey.

My Survey			
Question 1	on foot	by bus	by car
How do you travel to school?			
Question 2	by car	by ship	by airplane
How do you like to travel on vacation?			

Group Survey			
Question 1	on foot	by bus	by car
How do you travel to school?			
Question 2	by car	by ship	by airplane
How do you like to travel on vacation?			

7 Write sentences using *a few*, *some*, *many*, and *a lot of* about your survey.

- 1
- 2
- 3
- 4



What can visitors see and do in the UAE?

Why is the UAE a great travel destination?

What amazing things can you see and do in the UAE?



LISTENING

- 1 Listen to the radio ad about the UAE. Fill in the gaps with the missing information.

Dubai	Ras Al Khaimah	Sharjah
Population, million people	Jebel Jais: meters tall	Named
In 2016, visitors different types of dates	Capital of the UAE
In 2017, visitors kilometers of beaches largest Emirate in UAE
Dubai Mall, shops		Has the Sharjah Museum and the Sharjah Museum of Islamic Civilization
Burj Khalifa is feet tall.		

- 2 Listen again and complete the sentences with the correct information.

- You to Dubai mall, the world's biggest shopping mall.
- You the tallest building in the world, the Burj Khalifa.
- You the beautiful water fountain show.
- In, you can climb the highest mountain in the UAE, Jebel Jais.
- You can one of the top date farms in the UAE.
- Ras Al Khaimah also has white sandy beaches, with clear blue water where you water sports.
- In Sharjah the Sharjah Art Museum and Sharjah Museum of Civilization.
- In Abu Dhabi, you can go to Sheikh Zayed Grand Mosque and have fun at Ferrari World.



WRITING

3 Complete the sentences using *can*.

For example: in Dubai, you can go shopping at the Dubai Mall.

1. In Dubai, you
2. In Dubai, you
3. In Ras Al Khaimah, you
4. In Ras Al Khaimah, you
5. In Sharjah, you
6. In Sharjah, you

4 Read the email and answer the questions.

1. Who is writing the email?
2. Who is she writing to?
3. Underline the following parts of the email:
 - a. the greeting
 - b. the opening sentence
 - c. the reason for writing
 - d. the closing sentence
 - e. the ending
4. Why is Zainab writing?

5 You are going to write an email to Zainab. Plan what she can do with her family in the UAE. Use the graphic organizer in Activity 4 of your Workbook.

6 Write your informal email on the lines provided in Activity 5 in your Workbook. Use the information you gathered from Activity 4 of the Coursebook.



Hi Sara!

How are you? I'm really excited because I'm writing to tell you that I'm coming to visit you in the UAE!

I'm traveling with my family in December, so I hope the weather will be nice for our trip. We are planning to travel around all of the emirates and I was wondering what we can do. I haven't traveled to the UAE before, so I'm excited to see all of the different things you can do in each emirate.

I hope you can help me and give us some ideas for our trip!

All the best.

Zainab

Writing Tip

5 Email Writing Tips:

1. Start with a greeting: *Hi Zainab!*
2. Write an opening sentence: *So, I hear you're coming to the UAE?*
3. Give a reason: *I'm writing to...*
4. Write a closing sentence: *I hope to hear from you soon!*
5. Ending the email: *All the best.*

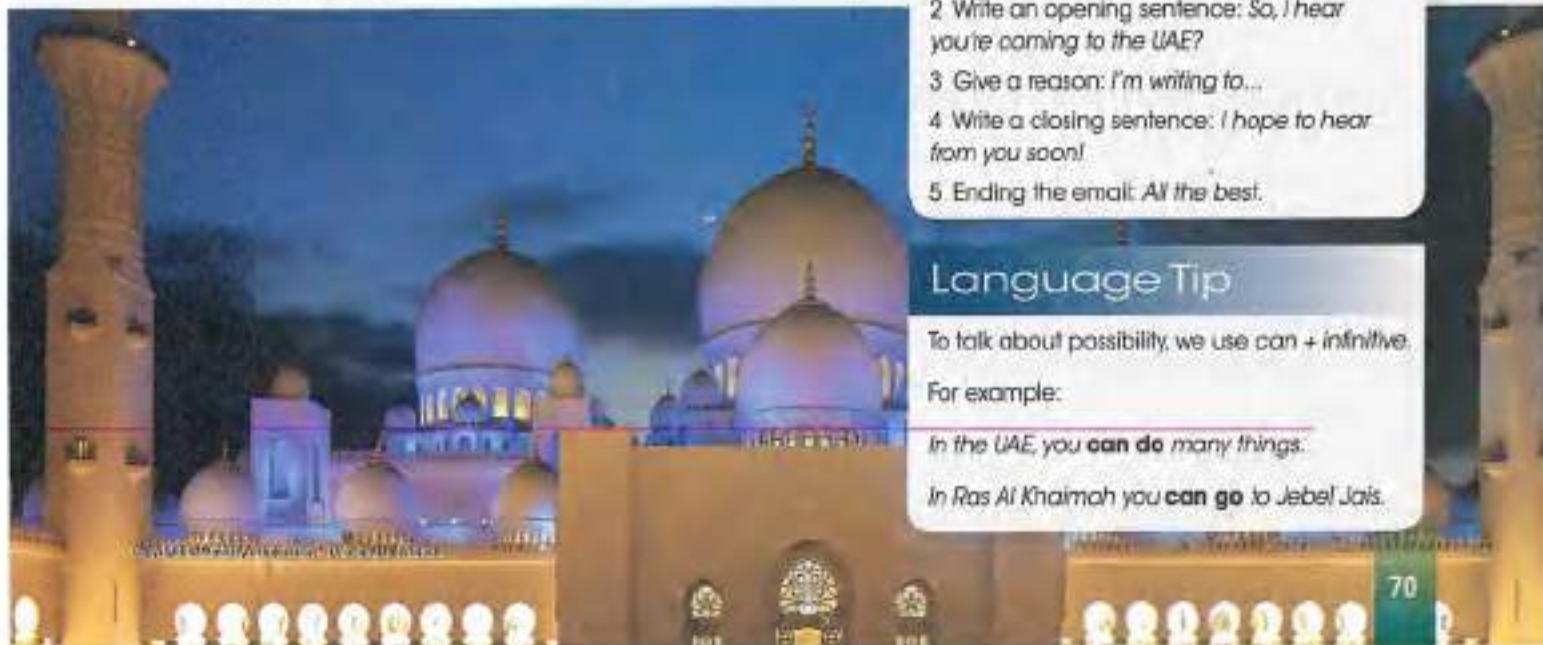
Language Tip

To talk about possibility, we use *can* + infinitive.

For example:

In the UAE, you **can do** many things.

In Ras Al Khaimah you **can go** to Jebel Jais.





ENGLISH

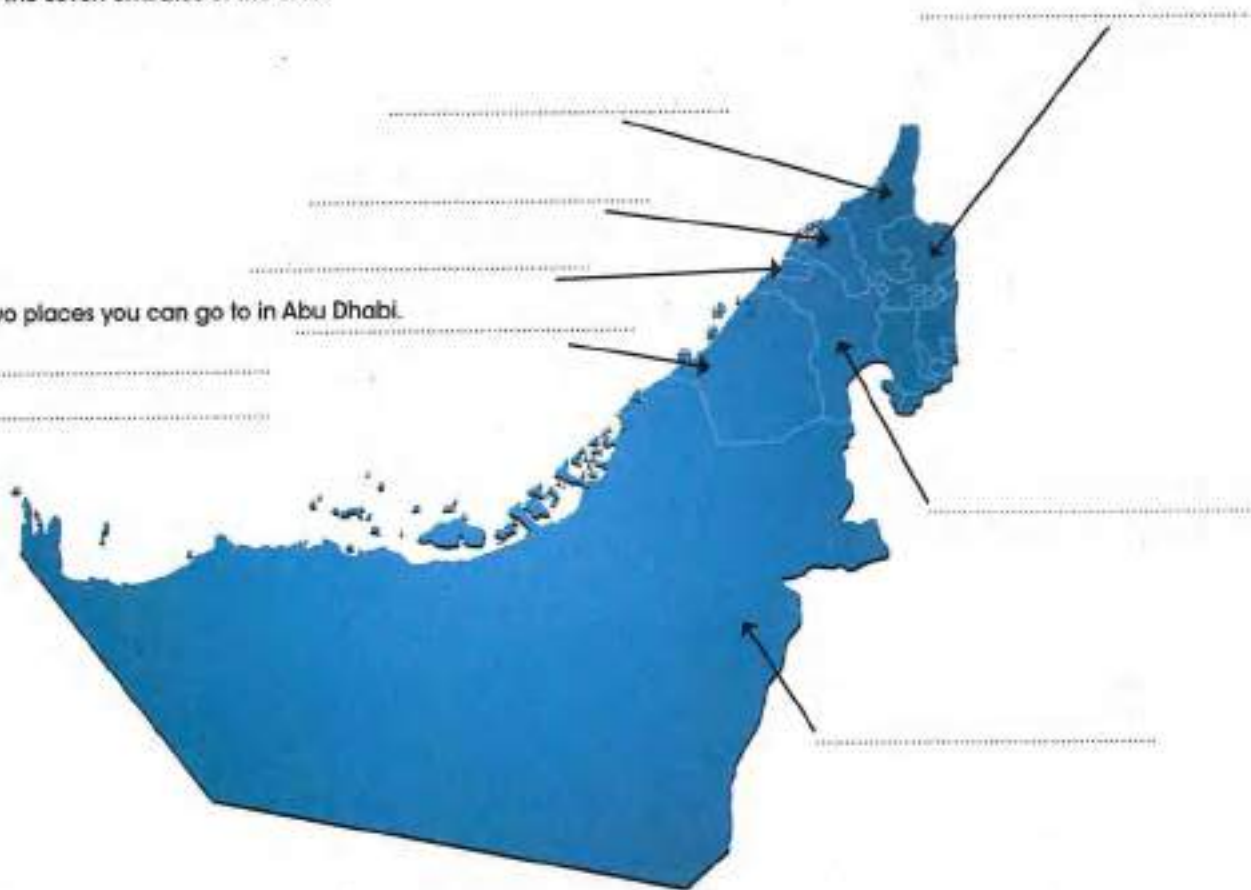
1 Match each word with the correct definition.

- | | |
|---------------|---|
| 1 modern | a something that is unique and different |
| 2 traditional | b a place where a traveler goes to or visits |
| 3 travel | c related to something in the present, new things |
| 4 vacation | d a time during a holiday; free time |
| 5 special | e to make a journey; go to another place |
| 6 destination | f related to something from the past; old ideas |
| 7 ad | g an advertisement; persuades you to do something |

2 A Label the seven emirates of the UAE.

B List two places you can go to in Abu Dhabi.

- 1
- 2



3 Complete each sentence with two activities your friend can do in the UAE. Try to think of your own ideas.

- 1 In Abu Dhabi, you can
and
- 2 In Dubai, you can
and
- 3 In Ras Al Khaimah, you can
and
- 4 In Sharjah, you can
and

Did You Know?

The UAE population consists of 200 nationalities. While Arabic is the official language, many people also speak English, Hindi and Urdu.



ENGLISH

VOCABULARY

1 Match the following words to their opposite.

- | | |
|------------------|-------------------|
| 1 traditional | a same |
| 2 noisy | b vacation |
| 3 business | c second language |
| 4 visitor | d normal |
| 5 first language | e local |
| 6 different | f quiet |
| 7 special | g modern |

2 Fill in the missing words to complete the ad with the words in the box.

travel • destination • tourists
back • country • route • reasons

Come Visit Ras Al Khaimah!

Welcome to beautiful Ras Al Khaimah! There are many ¹..... to visit our emirate. RAK has some of the best beaches in the ²..... You can ³..... by boat to many small islands in the Arabian Sea. ⁴..... love taking pictures of our amazing mountains and red sand dunes. You can even travel by camel and follow our traditional ⁵..... through the desert. This is why Ras Al Khaimah is a great ⁶..... for visitors and locals! ⁷..... a vacation to Ras Al Khaimah today!

LANGUAGE FOCUS

3 Read the following text. Circle the correct answer.

- In the past, there were only **a lot of / a few** places Emiratis could travel to, like Oman or Saudi Arabia. This is because we traveled slowly by boat, camel, or horse. It would take **a few / many** days to travel to other countries, even weeks!
- These days, we have more choice. We can travel to **many / some** countries around the world. It is so fast, too! It only takes **a lot of / a few** hours by plane to reach other countries.
- We can go anywhere! We can meet **many / some** people from **a lot of / a few** different countries. Good thing there are **a lot of / a few** languages that **many / some** people speak, like English.

- 4 Read the following sentences. Finish the sentence giving a reason why you do it. Use **because** to connect the two parts.

- 1 I like to travel
- 2 I learn new languages
- 3 I am nice to my friends
- 4 I eat breakfast every day
- 5 I practice soccer

- 5 Complete your personality profile. Use **a few, a lot of, many, some**.

- 1 I know how to play sports.
- 2 I like to read books every month.
- 3 I spend hours watching television every day.
- 4 I sleep hours every night.
- 5 I like talking with people every day.

- 6 Make a list of five things you can do and five things you can't do. Write them down in the table.

+	Can	-	Can't

SPEAKING

- 7 Go around the class. Ask the other students if they can do the same things you can do. If they can do the thing, put a check next to the word on your list. Also ask them other questions based on their answers. For example: "Do you enjoy doing it? Why?" They should try to explain their answer using 'because'. Did you find someone who can do each thing?

Can you ride a horse?

Yes, I can ride a horse.

Self-assessment

Read the statements and check the best description.

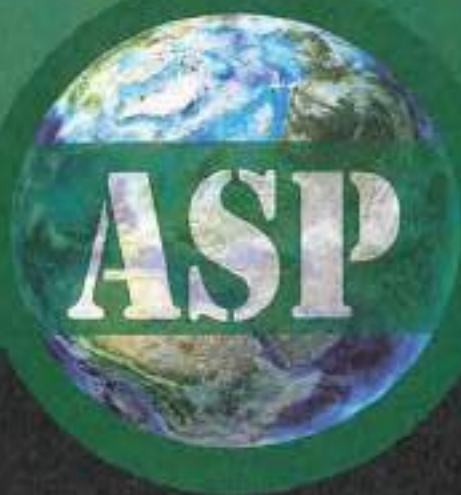
- I can listen to a recording and find out the reasons why people do things.
 I can make a list of the things I can and can't do.
 I can lead a group in a discussion.
 I can describe how food comes to the UAE.
 I can write an email describing things people can do in the UAE.

Yes Maybe No

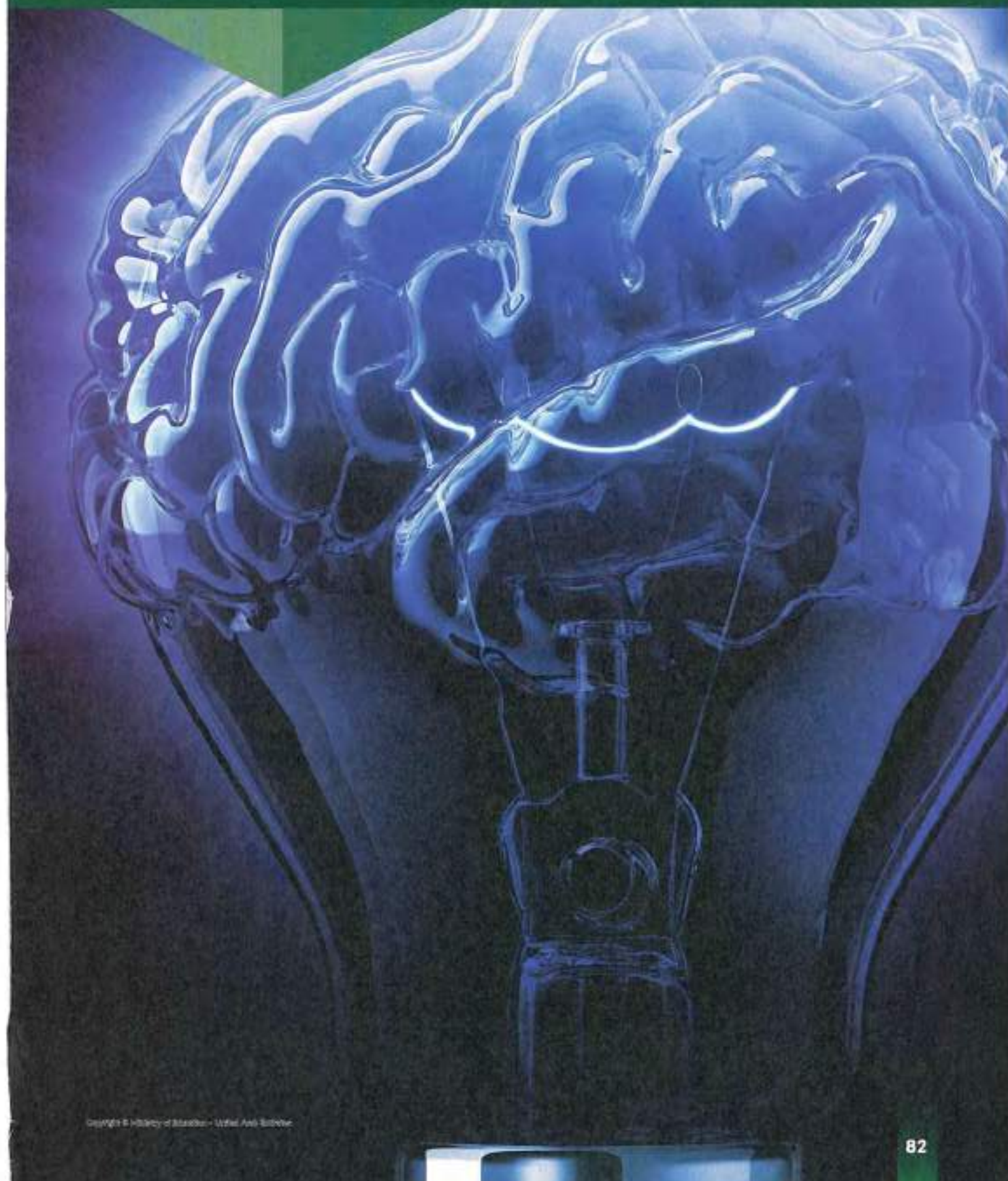
**ENGLISH**[illegible]

**ENGLISH**[illegible]

A large, light blue rectangular area with rounded corners, containing numerous horizontal lines for writing. The lines are evenly spaced and extend across the width of the area.



Projects





STEAM PROJECT 1

Design a Light Show

PROJECTS

- Have you watched any famous light shows?
- How did you feel watching the light shows?

GETTING STARTED

- In groups, look at the four pictures and answer the questions?
 - Which cities are in the pictures?
 - What special event is happening in each city?
 - What would you expect to see at this special event in the UAE?



- Read the text and place the figures into the infographic.



How it works: The Burj Khalifa Light Show

The Burj Khalifa in Downtown Dubai is the largest and highest LED screen in the world. It is 828 meters tall.

42 team members work together to fix the screen if there are any problems. They also help design the light shows, like the one at the 2018 New Year's Eve event. There are 357,231 LED lights that create and can project any design. There are 75,000 brackets that hold the LEDs in place.

There is some very special computer software that controls all the lights and creates the amazing images on the building.

- Read the text again. Circle **True** or **False**

- | | | |
|---|------|-------|
| 1 The Burj Al Arab has the largest and highest screen in the world. | True | False |
| 2 The Burj Khalifa is over 1000 meters tall. | True | False |
| 3 Forty-two people help design the Burj Khalifa light show. | True | False |
| 4 The LED light show can create any design. | True | False |
| 5 Special computer hardware controls all the lights. | True | False |

PREPARATION

- Look at the poster. In groups, make notes about what information is included.

- 5 Underline all the adjectives from the poster. Add them to the mind map, like the one below.



Did You Know?

You can use synonyms to make your writing sound more interesting. For example, *spectacular*, *incredible*, *breathtaking*, *wonderful* and *amazing* are all synonyms.

- 6 In pairs, think of synonyms for the adjectives in the text and add them to your mind map.

PLANNING

- 7 In groups, discuss what images you would include in your own LED light show about life in the UAE.
- 8 In groups, decide on which UAE landmark you would like to have your LED light show.
- 9 In groups, decide what information you would like to include on a poster for your UAE LED light show. Use your notes from Activity 4 to help you.

TASK

- 10 Design a poster for your own UAE light show. You must include information about the event, and a paragraph full of adjectives to describe your LED light show. Use the example poster and your planning notes to help you.

Burj Khalifa Light Show

Come and see the most spectacular light show in the world!

This will be an incredible and breathtaking event for family and friends to enjoy.

Watch many colorful LED lasers light up the wonderful Downtown Dubai Skyline.

Don't miss this amazing and beautiful show!

Price: Adults: 50 AED Children: 20 AED Time: 8pm
Location: Downtown Dubai
Date: 10th March Book online: www.amazingburjkhalifalightshow.com

PRACTICE

- 11 Practice presenting your poster to the class.

PRESENTATION

- 12 In groups, present your poster to the class.

Explain why you have chosen:

- The images of the UAE
- The landmark
- The adjectives to describe the lightshow

REVIEW

- 13 Write two good things about your presentation, and one thing you could improve in future presentations.
- 14 Which of your classmates' posters was your favorite. Why?



LITERATURE PROJECT 1

Tik-Tok of Oz

PROJECTS

- How does a robot work?
- Can a robot think?
- Have you read any stories with robots in?

READING

- 1 Read part of a story called, **TIK-TOK OF OZ** by L. Frank Baum. Find the information you need in the text. Write the answers to the questions.



- 1 Who noticed a lot of trash in the well?

.....

- 2 What did they pull up from the well?

.....

- 3 Why are they so excited about what they found?

.....

.....

"There is a lot of trash in this well," said Ruhi. He pulled out some objects. "Help me. I've found something heavy inside the well." His friend ran to help him. They pulled to get the metal object out of the well. "Wow!" said Ruhi. "What a surprise!" "What is it?" asked his friend. Ruhi put the metal object on the ground and turned it over. They were amazed. It was a copper man. "Just what I thought," said Ruhi. "This is the most shocking thing I have ever found!"

- 2 Draw Tik-Tok in the box and label the picture describing how it's used.

"Oh, here's a sign on his back!" said his friend who sat down to look closer.

They read the words on the back of the copper man:

*Double-Action, Thought-Creating, Perfect-Talking
MECHANICAL MAN*

made with our Special Clockwork Attachment.

He Thinks, Speaks, and Does Everything but Live.

"Oh here's more," said his friend and they continued reading.

DIRECTIONS FOR USING:

For THINKING: Wind the Clockwork Man under his left arm.

For SPEAKING: Wind the Clockwork Man under his right arm.

For WALKING and ACTION: Wind the Clockwork Man in the middle of his back.

This will work perfectly for a thousand years.

- 3 Read the final part of the story. Read the questions and highlight the information you need in the text. Write the answers to the questions.



"Let's wind him up," said Ruhi. To wind up the robot, they had to make him stand up, but this was not easy. He fell over again and again. Ruhi and his friend worked together and after some time the robot was balanced and standing up on his feet.

Ruhi looked at the copper man carefully. "This must be Tik-Tok, whom I left in the Land of Oz. How did he come to this lonely place? It is a mystery."

"If we wind him, maybe he will tell us," said Ruhi's friend. "Here's the key on a hook on his back. Which part shall I wind up first?"

"His thoughts, of course," said Ruhi's friend, "because he needs thought to speak or move."

They wound him under his left arm and little flashes of light started to show in the top of his head.

"Now, then," said Ruhi, "wind up his phonograph." "What's that?" asked his friend.

"His talking machine. His thoughts might be interesting, but they don't tell us anything."

So, they wound the copper man under his right arm and then the words, "ma-ny thanks," came from inside his copper body.

"Hurrah!" Shouted Ruhi happily. He hit Tik-Tok on the back in a happy way that made the copper man lose his balance and he fell onto the ground. "Pick me up! Pick me up! Pick me up!" He said until they picked him up and balanced him on his feet. He added politely, "Ma-ny thanks!"

"He can't help himself until we wind up his action," said Ruhi, so they wound it tight. The key turned very hard and then Tik-Tok lifted his feet, walked in a circle, and stopped in front of the friends to bow.

"I left you safe in Oz. Why were you in that well?" asked Ruhi.

"It's a long story," replied Tik-Tok

- 1 Why did Ruhi want Tik-Tok to talk?
.....
- 2 What is Tik-Tok's phonograph?
.....
- 3 Did Ruhi know Tik-Tok before the event at the well? How do you know this?
.....
- 4 Why do you think Tik-Tok was in the well? Discuss in your group.
.....

4 Read about Tik Tok again and complete each sentence with the correct phrasal verbs.

- 1 "To the robot, they had to make him but this was not easy."
- 2 "Ruhi at the copper man carefully."
- 3 Ruhi had to Tik Tok after he hit him on the back and fell.

5 Think about what Tik Tok can do. Write two more things Tik Tok can do. Tik Tok can think.

- 1
- 2

6 Match the things Tik Tok can do with the correct directions for each.

- | | |
|---|---------|
| 1 Wind the Clockwork man in the middle of his back. | a Think |
| 2 Wind the Clockwork man under his left arm. | b Speck |
| 3 Wind the Clockwork man under his right arm. | c Move |

WRITING

7 Imagine you have your own robot. What can your robot do? Describe what it can do with directions. My robot can think; wind him on the top of head.

- 1
- 2
- 3

SPEAKING

- 8 Plan and create an original poster about how Tik-Tok, the robot, works. Make sure everyone in your group has a role.
- 9 Now present your poster. Remember to include all the information on your poster in your presentation.



Notes

Projects

This image shows a single page from a notebook or ledger. The page is white with faint, evenly spaced horizontal blue lines running across its width. There are approximately 20 lines visible. The left edge of the page shows the binding of the book, and the right edge is slightly irregular. The overall appearance is that of a clean, unused sheet of stationery.



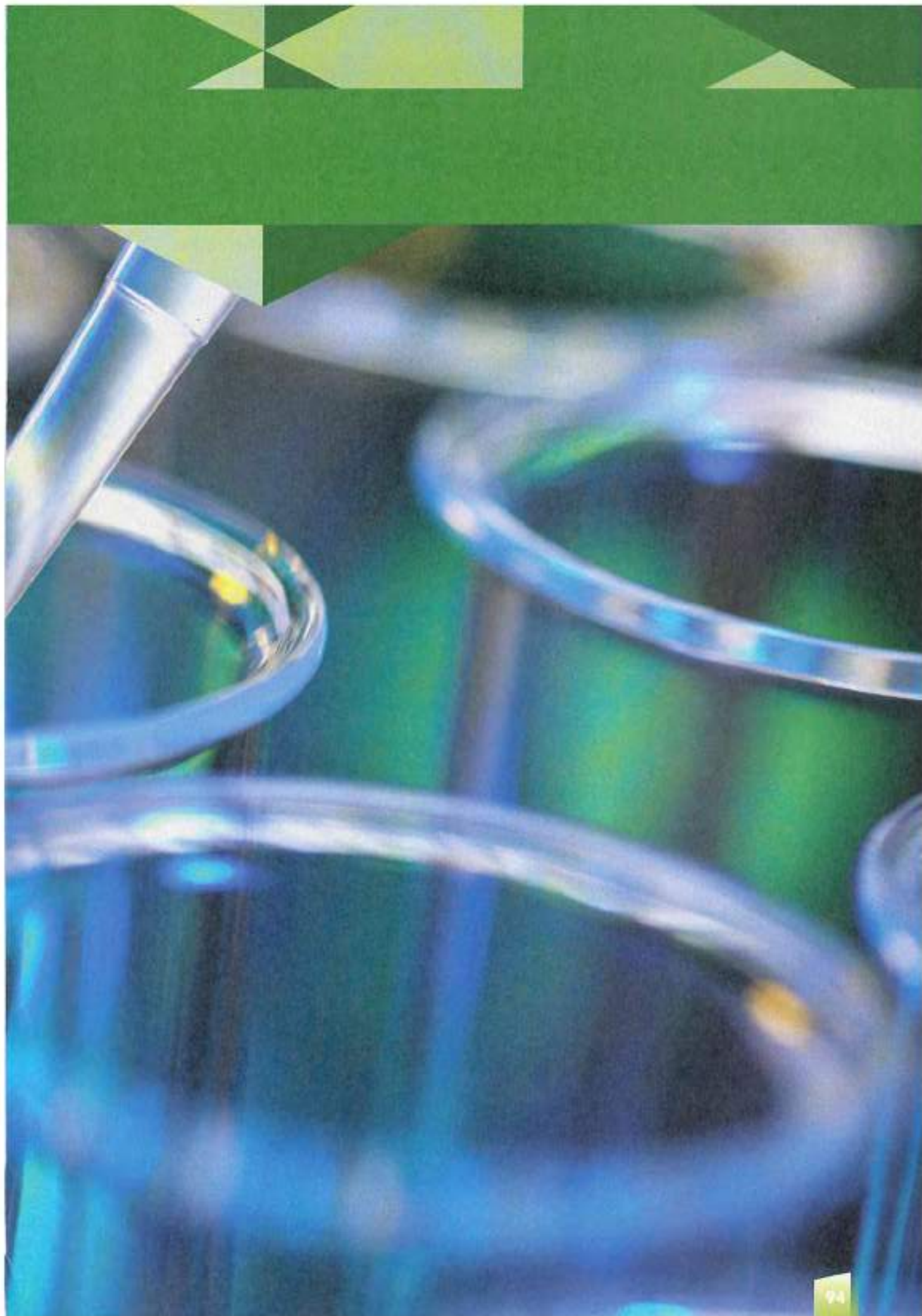
Projects

[illegible]

The logo consists of a circular frame containing a detailed image of the Earth, showing continents and clouds. Overlaid on the center of the globe is the text 'ASP' in a large, white, serif font.

ASP

Science





What are Newton's Laws?

- Have you kicked a ball before? What happened?
- What happens when you jump? Why?

READING

- 1 Below are three texts about Newton's Laws of Motion. Match each text to one of the pictures.

- a
b
c

Try this!

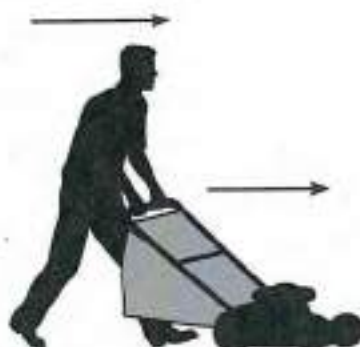
Pick up your pen, drop it onto the table. What happened?
Now stand up. How did you stand up? If you had a bowling ball, would it be more difficult? Why?

- 1 This law has two parts. First, it talks about things that are not moving. It says that those things will not move until something pushes or pulls them. The second part talks about things that are moving. It says that these things will keep moving until something makes them go slower or stops them.

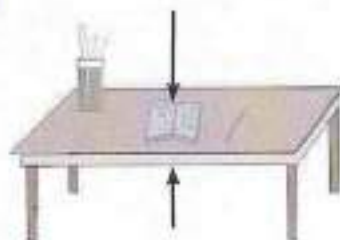
- 2 This law is about how fast things go. It says that if a force is put on something, this will make it go faster. The mass of that thing changes how much faster it will go. A small thing will go faster than a bigger thing when the same force is used.

- 3 This law is about opposite forces. One force is action, the other force is reaction. For every action, there is an equal and opposite reaction. When a book is on a table, it is pushing down. The table is pushing up with the same force so the book stays in the same place.

a



b



c



2 Use the texts from Activity 1 to answer the questions. Circle the correct answer.

- 1 Which of Newton's laws has two parts?
 - a 1
 - b 2
 - c 3
- 2 When something is not moving, it will not move until...
 - a it falls.
 - b something pushes or pulls it.
 - c its mass changes.
- 3 When something is moving, it will not stop until....
 - a it changes direction.
 - b it changes mass.
 - c something makes it stop.
- 4 When the same force is used...
 - a a small thing will move faster than a bigger thing.
 - b it will change mass.
 - c bigger things will move faster than smaller things.
- 5 For every action there is an equal and....
 - a same action.
 - b opposite reaction.
 - c different mass.

Reading Strategy

Look for key words when you are reading for specific information. For example:

In Activity 1, question 1, the words **two parts** are in the text. If you find these words, you will find the answer!



WRITING

3 Use the boxes to help you explain one of Newton's laws.

Note down what you need to say.

Sketch an example.

SPEAKING

4 Present your explanation and example to the class.



What is motion?

- Are we always moving?
- When are you moving the fastest?

READING

- 1 Read the text and underline the words that are in the vocabulary box.

What is motion?

Motion is when something moves. We move a lot during the day. We can move fast or slow. The speed of an object is how fast it is moving. When something is moving fast, it has a high speed. It will travel a long distance in a short time. When something has a low speed, it will travel a shorter distance in the same amount of time.

When the speed and direction of something is known, we can know its velocity. For example, a car is moving left with high velocity.

When something is large, heavy and has high velocity, it will have high momentum. When something is not heavy and has low velocity, it will have low momentum. For example, a feather falling to the ground. When something has a higher momentum, it is more difficult to stop. For example, when a football and a bowling ball are travelling at the same speed, the bowling ball is much more difficult to stop.

Imagine you are sitting in a car at a red light. The car is not moving. When the light turns green, the car starts moving. This is called acceleration. When the next light on the road turns red, the car slows down again. This is also acceleration. Any change in speed is acceleration. Acceleration can be fast or slow. For example, a sports car can accelerate faster than a bus.

When something is moving in a circle and is directed at the center of what it is moving around, it is because of centripetal force. For example, the moon moves around the Earth because of centripetal force.



- 2 Read the text again. Are the sentences **True (T)** or **False (F)**?

Write **T** or **F**.

- 1 Motion is when something is not moving.
- 2 When the distance is the same, something with a higher speed will get there faster.
- 3 Velocity is speed with no direction.
- 4 Something with high momentum is easy to stop.
- 5 A sports car can accelerate faster than a bus.
- 6 Centripetal acceleration is moving in a line.

Vocabulary

speed - how fast something goes

velocity - the speed and direction of something

distance - how far something is from something else

momentum - the force that makes something continue to move. The bigger and heavier something is, the more momentum it can have.

acceleration - a change in speed


centripetal - a force on something that makes it move in a circular path. The force is directed towards the center the object is moving around. For example, a satellite moving around the Earth.

Reading Strategy

When reading a text that has a lot of words you don't know, it is useful to underline these words. This will help when you need to find their definitions.

It is also useful to underline the main ideas when reading an informative text. This will help you to find the information you need quickly when you need to find it.

SPEAKING

- 3  In groups, follow the instructions.
- In groups of four, one person chooses a word from the vocabulary box. Don't let the others know which word you chose.
 - Describe the word you have chosen without saying the word.
 - The first person to say the correct word gets a point.
 - Then, the next person chooses a word and has to describe the word in the same way. Continue until all the words have been described. The person with the most points wins.

Speaking Tip

When saying the word *motion* remember when words end in *-tion*, the 't' sounds like 'sh'.

Practice saying the words below:

motion
action
station
location

READING

- 4 Match a phrase to its correct ending to make a full sentence.

- | | |
|--|---|
| 1 The ship had too much momentum, so... | a so it can accelerate fast. |
| 2 The distance between Dubai and RAK... | b when he pulled the parachute. |
| 3 Horse number six had the fastest speed... | c it crashed into the marina. |
| 4 The skydiver's velocity reduced... | d allows it to travel around the earth. |
| 5 The centripetal force acting on the satellite... | e is too far to walk. |
| 6 The car is very light with a big engine... | f so it won the race. |

SPEAKING

- 5 You are going to give a presentation in groups about motion. Discuss motion and add notes to the mind map to help organize your ideas



- 6 In groups, explain motion to the class. Give examples.



What are the properties of matter?

- What is weight?
- Do you think your weight would change if you were on a different planet?

READING

- 1 Scan the texts and circle the vocabulary from the box.

Properties of matter

The general properties of matter are mass and volume. This means matter is anything that has mass and takes up space. Matter has physical and chemical properties. Let's take a look at those properties.

The physical properties of a substance can be seen and measured without changing the substance. No new substances are made or lost. So, if you tear a piece of paper, you have made a physical change in the shape of the paper, but you still have paper. No new substance is made by the change.

Examples of physical properties are:

- physical state (solid, liquid or gas)
- mass
- weight
- volume
- density
- color

Matter also has chemical properties. Chemical properties are the characteristics that change the substance.

Type of chemical properties:

- flammable
- corrosive
- pH
- explosive

If you burn a piece of paper, it releases gases and becomes ash. The gases and ash are new substances that were made because of the chemical change. Chemical changes always make new substances.

Vocabulary

mass – the amount of matter

characteristics – special qualities or traits that make something different from something else

substance – a material of a particular kind

explosion – a sudden, loud, and violent release of energy

flammable – something that burns

corrosive – causes damage to material by chemical process

pH – a number between 0 and 14 that indicates if a chemical is an acid or a base

- 2 Read the text again. Are the sentences **True (T)** or **False (F)**? Write T or F. Rewrite the false statements to make them true.

- Physical properties of a substance can be seen and measured by changing the substance.
.....
- When you tear a piece of paper, you make a physical change to it.
.....
- Matter has mass and volume.
.....
- No new substances are made from chemical changes.
.....
- When you burn a piece of paper, you make a physical change to it.
.....
- Being flammable is a chemical property.
.....

Did You Know?

Mass and weight are not the same. Mass is how much matter something has, while weight is how heavy something is. Unlike mass, weight changes based on gravity. So, on Earth the weight of an object might be one number, but on the moon, it would be much less. Your mass doesn't change even when the amount of gravity does.





Did You Know?

In both physical and chemical changes, matter often changes. Physical changes are when matter changes from one state to another. For example, water can freeze and become ice.

Chemical changes happen when a substance combines with another substance to make something new. For example, when iron is combined with water and oxygen over a long period of time, it makes rust. The rust is a new substance. A substance can also decompose, this can make two or more new substances. For example, the electrolysis of water makes oxygen and hydrogen (H) gas.

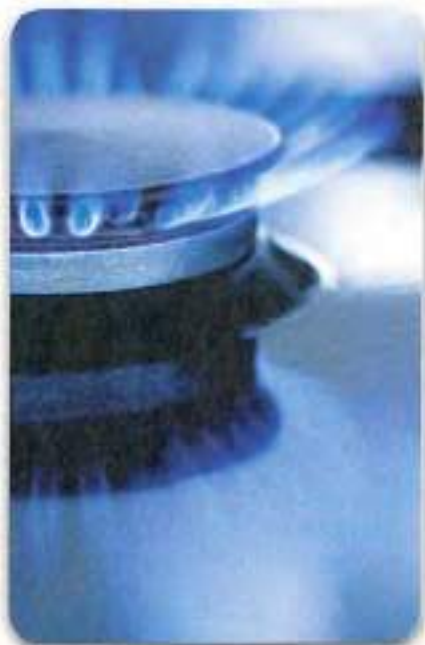
4 Label the changes with a **P** if they are physical changes, or a **C** if they are chemical changes.

- 1 burning paper to make ash and gases
- 2 freezing water to make ice
- 3 tearing paper to make two pieces of paper
- 4 iron, oxygen and water combining to make rust

SPEAKING

4 Discuss the physical or chemical changes that could happen to the things in the pictures below.

flammable volume explosive PH
gas weight density color
liquid mass corrosive solid



* Can you think of any physical or chemical changes you have seen today? Discuss with your partner.



What are temperature, thermal energy, and heat?

- What is heat?
- What do you do if you are too hot or too cold?

READING

- 1 Read the text, and fill in the blanks with the words from the box. Use the vocabulary box to help understand the meanings of these words.

thermal energy • heat • temperature

What is heat? ¹..... is energy that makes things become warmer, or increase in temperature. It is the flow of ²..... from something warmer to something cooler.

All things are made of groups of particles. These particles are always moving. When the ³..... of an object is high, the particles are moving around quickly. When the temperature of an object is low, the particles are moving around more slowly.

How does heat move? Think about a cup of tea. A hot cup of tea has particles that are moving very quickly. When we touch it with our hand, it feels hot because the particles are moving faster than the particles of our skin. As you hold it, ⁴..... is being transferred to your skin, making the particles of your skin move faster. The same is true if you hold a glass of iced tea. The particles in the iced tea are moving more slowly than the particles in your skin. As you hold the cold glass of tea, heat is being transferred from your skin to the glass of tea because your hand is warmer than the glass of tea. ⁵..... always moves from something warmer to something cooler.

How are temperature and thermal energy different? Imagine a large pool of water and a small glass of water. If the water in both is at 30 degrees, they both have the same temperature. However, they do not have the same amount of thermal energy. This is because thermal energy comes from the total amount of energy in all the particles of a system. There are more water particles in the pool, so it has more thermal energy. If the water in the pool and glass starts to cool, the water in the glass will cool faster because it has less thermal energy.



Vocabulary

heat – energy that makes things warmer

thermal energy – energy that comes from the temperature of matter

temperature – a measurement that indicates how hot or cold something is

- 2 Read the text again. Are the sentences **True (T)** or **False (F)**? Write **T** or **F**. Rewrite the false statements to make them true.

- Heat moves from something cooler to something warmer.
- When you touch a hot cup of tea, the heat moves from the tea to your hand.
- When you touch a glass of iced tea, the heat moves from the tea to your hand.
- Heat is the flow of temperature from something warmer to something cooler.
- A glass of water has less thermal energy than a pool of water.
- A pool of water will cool off slower than a glass of water.

- 3 Re-read the text and answer the questions.

- What is heat?
- What does heat move from and what does it move to?
- How are temperature and thermal energy different?
- Why does a pool of water have more thermal energy than a glass of water at the same temperature?

Did You Know?

Hot air balloons rise because when heat is added to the air inside the balloon, the air becomes less dense and therefore lighter than the air around it. In 1783, the first hot air balloon flight took a duck, a rooster and a sheep up in a basket, and flew three kilometers for eight minutes.

- 4 Put the words in the correct order to make sentences.

- thermal / are / and / same / the / temperature / not / energy
.....
- flows / warmer / heat / something / something / cooler / to / from
.....
- water / pool / the / is / 30 / in / the / is / degrees
.....
- energy / that / warmer / become / is / things / makes / heat
.....

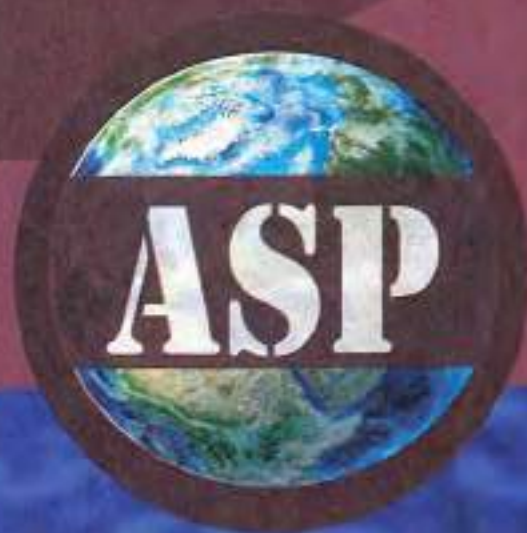


This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.



Notes

This image shows a single sheet of white paper with horizontal blue or grey ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper appears slightly aged or off-white. There is no handwriting or other markings on the page.



Math





What are operations with integers?

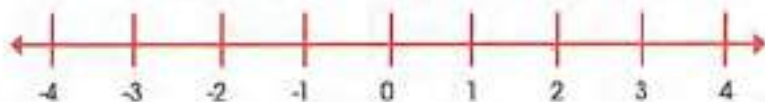
- How many different math operations can you name?
- What are the symbols for these?

READING

- 1 Read the text about integers. Then answer the questions.

What is an integer?

An integer is any positive or negative number with no fractional or decimal part. Zero is an integer, too. That's easy, right? Some people think an integer is the same as a whole number, but there is one important difference. Whole numbers cannot be negative, but integers can. Some examples of integers are shown in the number line.

**Reading strategy**

When reading to answer questions, it's often good to read the questions before reading the text. Then you know what you are looking for!

- What is an integer?
.....
- What is the difference between an integer and a whole number?
.....
- Is zero an integer?
.....
- What are some examples of integers?
.....



- 2 Read the text and answer the questions.

Positive and Negative Numbers

Positive numbers are any number greater than zero. They are usually written with no symbol in front (e.g. 5), but may have a + sign in front to show it is different from a negative number (e.g. +5).

A negative number is any number less than zero. It is written with a negative (-) symbol in front (e.g. -9). The negative number -1 is greater than the negative number -7 because it is closer to zero.

Inequality Symbols

- $<$ is less than, is fewer than, is below, is not greater than or equal to
- \leq is less than or equal to, is at most, is no more than, is a maximum of
- $>$ is greater than, is more than, is above, exceeds, is not less than or equal to
- \geq is greater than or equal to, is at least, is no less than, is a minimum of
- \neq is not equal to, is not the same as

27	-1.5	92.4
-5	42	-7
-102	60	-389

$-60 < 40$	$x > 37$
$y \geq 17$	$12 > 4$
	$y \neq 5$
$60 > 40$	$x \geq 14$

- Circle the negative numbers in the blue box.
- Underline the positive numbers in the blue box.
- What does the symbol \geq mean?
- What is the largest number in the blue box?
- What does the symbol $>$ mean?
- What is the smallest number in the blue box?
- What does the symbol \leq mean?
- What does the symbol $<$ mean?

3 Write the sentences below as number problems.

Example:

Negative twelve is greater than negative thirteen.

$-12 > -13$

1 X is greater than or equal to fifty-seven.

2 Thirty-seven is less than forty-eight.

3 Fifteen is not equal to ten.

4 Eighty is greater than forty-two.

5 Y is less than or equal to twenty-two.

4 Write the sentences below as number problems. Use the words in the box.

Example:

Negative five minus twenty-seven equals negative thirty-two. $-5 - 27 = -32$

NOTE: It's negative five, not minus five.

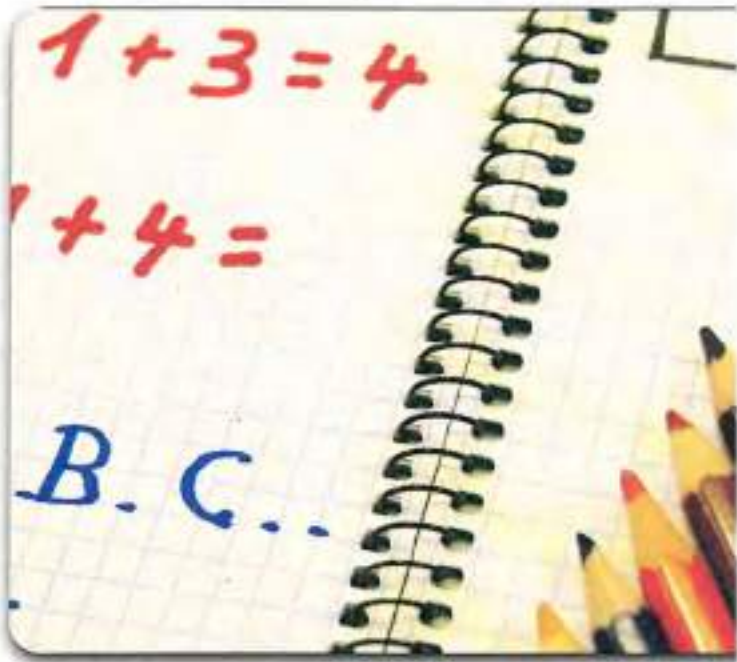
plus (+) • minus (-) • divided by (÷) • multiplied by (x)

1 Twenty-two minus fourteen equals eight.

2 Negative forty times two equals negative eighty.

3 Fifty divided by ten equals five.

4 Negative seventeen plus fifty equals thirty-three.



5 Now do the opposite. Write the number problems as word problems.

1 $11 - 3 = 8$

2 $-21 \times 3 = -63$

3 $200 \div 10 = 20$

4 $-24 + -31 = -55$

Language Tip

When writing numbers from 21 to 99 in word form, use a hyphen to separate the two words.

Example: 41 = forty-one



What are operations with rational numbers?

What other types of numbers are there besides whole numbers?

- 1 Read the words and their meanings. Then complete the example column using your own examples.

Word	Meaning	Example
repeating decimal	A decimal which has a digit or group of digits repeat infinitely. For example, 0.181818... and 0.8333...	
terminating decimal	A decimal which has a final non-zero digit. For example, 5.6, 2.44	
bar notation	A line or bar placed over the digits that repeat in a repeating decimal. For example, $2.\overline{63}$ represents 2.636363...	
rational numbers	The numbers that can be written as a fraction in the form $\frac{a}{b}$, where a and b are both integers, and $b \neq 0$. For example, $\frac{6}{7}$, $\frac{9}{3}$.	
multiplicative inverses	Two numbers whose product is 1. For example, if 5 is the number, its multiplicative inverse is $\frac{1}{5}$. This is also known as a reciprocal.	
reciprocal	Another term for multiplicative inverse.	
like fractions	Fractions that have the same denominator. For example, $\frac{2}{3}$, $\frac{4}{3}$.	
unlike fractions	Fractions that have the same denominator. For example, $\frac{2}{3}$, $\frac{2}{4}$.	

- 2 Use the information in the table to answer the questions below.

1 What is an example of a bar notation given in the text?

.....

2 What is another word that means multiplicative inverses?

.....

3 What kind of fractions have different denominators?

.....

- 3 Complete each sentence below with a vocabulary word from Activity 1.

1 $\frac{5}{6}$ and $\frac{4}{3}$ are

.....

2 The number 0.85 has a

.....

3 A is used to show decimals that repeat.

4 $\frac{1}{8}$ and $\frac{3}{5}$ are

.....

5 The number 0.6363 has a

.....



SPEAKING

- 4 Practice saying the words in the box. Use the speaking tip to help you. Can you think of any other words containing *-tion*? Add them to the box.

fraction • rational • notation

- 5 Use the words from the box to complete the crossword puzzle.

repeating • terminating • bar notation • rational numbers
reciprocal • like fractions • unlike fractions • multiplicative inverses

Speaking Tip

Remember the pronunciation of *-tion*. The 't' becomes a 'sh' sound.

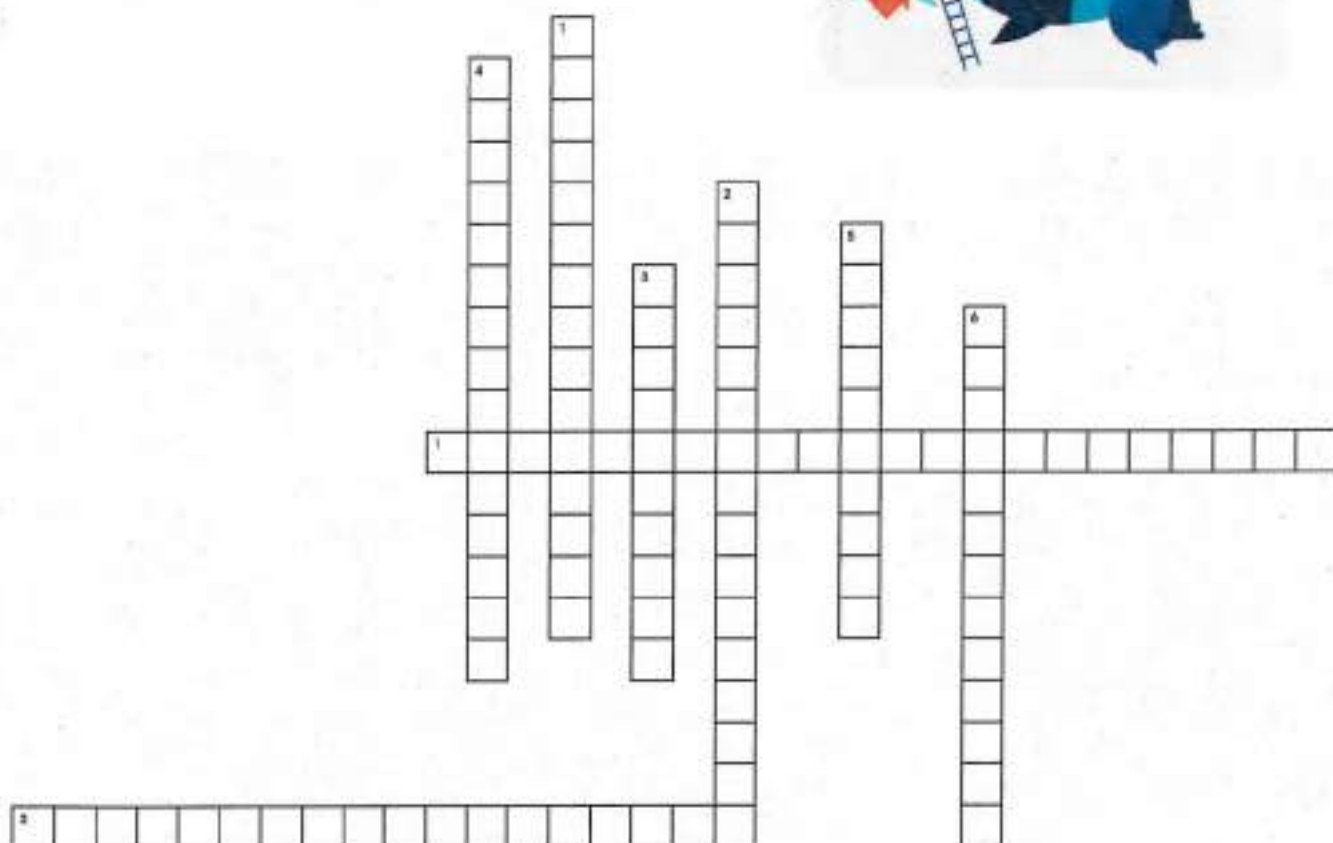
For example,
fraction, rational, notation

Across

- two numbers whose product is 1
- numbers that have decimals with a final non-zero digit

Down

- fractions that have different denominators
- a decimal which has a digit or group of digits that repeat indefinitely
- used to show a digit or digits that repeat in a repeating decimal
- the set of numbers that can be written as a fraction in the form $\frac{a}{b}$, where a and b are both integers, and b doesn't equal 0
- another term for multiplicative inverse
- fractions that have the same denominator





READING

- 1 Scan the text for the words in the vocabulary box. Circle them in the text.

Making a scale model city can be a lot of fun. It's a lot more than making little buildings. It takes a lot of careful measuring to make buildings to scale. But what does that mean exactly? Building something to scale means that you must make something smaller and keep its measurement ratios.

For example,

The ratio is 10:1. This means the building is 10 and the scale model is 1 (10 times smaller than the building). Every measurement must be made 10 times smaller to make the scale model. A building with a height of 10 meters will have a scale model height of 1 meter. If the length is 26 meters, the scale model length is 2.6 meters.

The ratio of a length on a scale model to the matching length on the real object is called the scale factor. If you change one measurement, you must change all the measurements in the same way. A scale model is much smaller, but it's still proportional. If the ratio changes of one part of the model, it becomes non-proportional.

- 2 Read the text. Then mark the statements with **True (T)** or **False (F)**.

- 1 When you make something to scale, you only change one measurement.

.....

- 2 When the relationship between two things changes, it is non-proportional.

.....

- 3 Making something to scale doesn't require measurements.

.....

- 4 When the ratio is 10:1, the scale factor is 5

.....

.....

Vocabulary

ratio

The relationship between the size, number or amount of two things. It is written as $a:b$ or a/b . For example, the ratio of students to teachers is 12:1 (12 students and 1 teacher)

scale

The ratio of the length in a drawing or model of an object and the length of the real thing. For example, the ratio is 10:1. The building is 10 meters tall, the model is 1 meter tall.

scale factor

The number used as a multiplier for the scale. For example, when the ratio is 10:1, the model must be scaled up by a factor of 10 to know to size of the real thing.

proportional


When two things are proportional, they change at the same rate so that the relationship between them does not change.

non-proportional

Two things that do not have a constant ratio or rate. The relationship between them changes.

3 Complete each sentence below with a vocabulary word from Activity 1.

- 1 When the ratios of two figures are the same, they are
- 2 Making something to means to keep the ratio the same.
- 3 If two figures do not have the same ratio, they are
- 4 We write the as $a:b$ or $\frac{a}{b}$.

4  Summarize the text from Activity 1 in your own words. Then share your summary with your partner.

WRITING

5 Unscramble the sentences.

- 1 be / model / scale. / The / to / must
.....
- 2 scale / proportional. / is / model / The
.....
- 3 has / scale / 1:100. / factor / a / of / it
.....
- 4 figures / equal / two / The / ratios. / have
.....
- 5 toy / to / real / is / His / a / car / one. / non-proportional
.....

6 Use the words from the list to complete the word search.



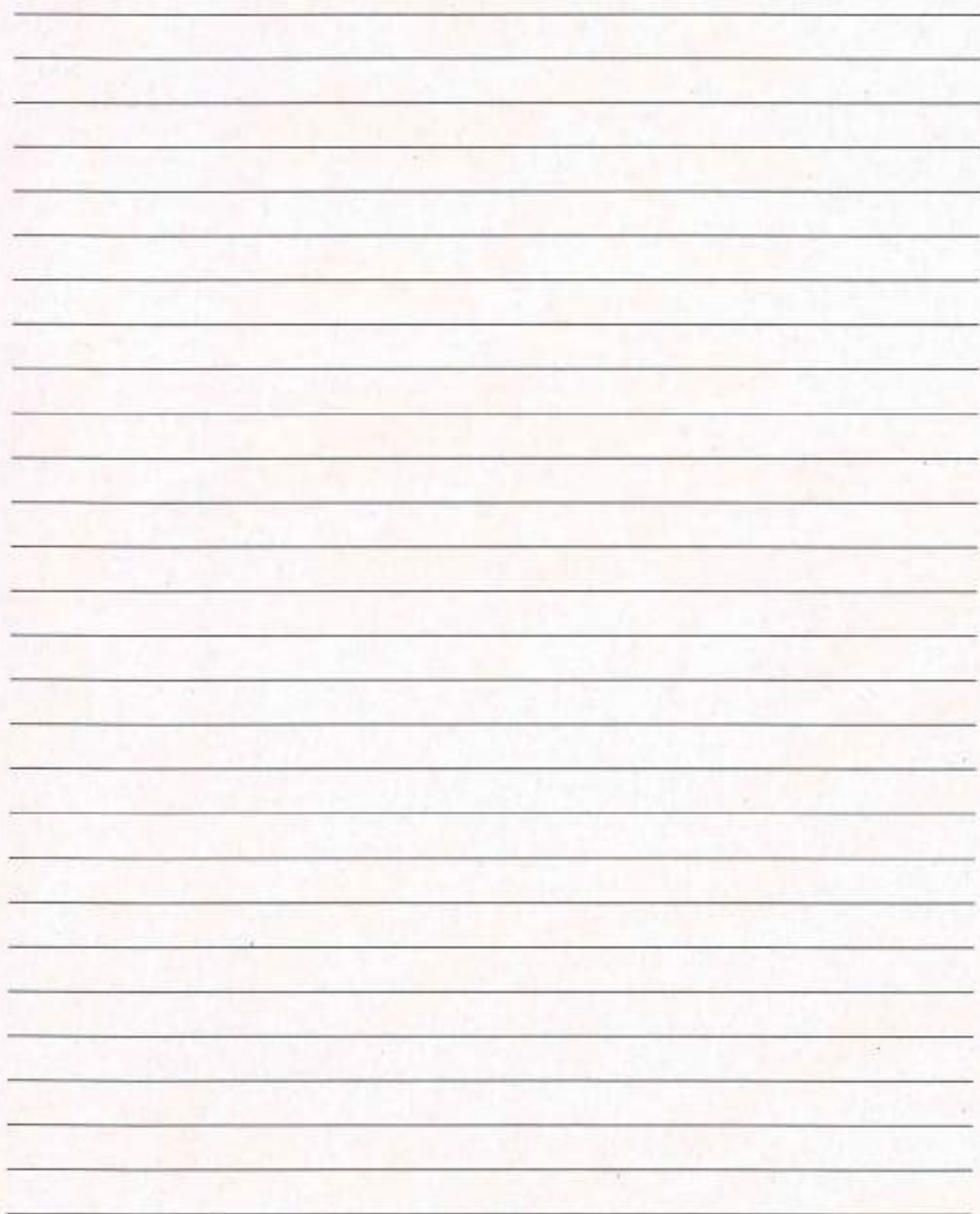
SCALE
RATIO
PROPORTIONAL
NON-PROPORTIONAL
SCALE FACTOR

Language Tip

When putting information into your own words, you can use phrases like: *In summary...* *In other words...* *That is to say...*



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A large rectangular area with horizontal ruling lines, intended for student work. The lines are evenly spaced and cover the majority of the page below the header and above the footer.



Notes

[illegible]



This image shows a single sheet of white paper with horizontal ruling lines. The lines are evenly spaced and run across the width of the page. There are approximately 20 lines visible. The paper appears slightly aged or off-white. There is no handwriting or other markings on the page.

AUDIO SCRIPT

Grade 7 Unit 7

Audio Track 1

- Khadija:** Good morning Dr. Sara, thank you for joining us. Today, Dr. Sara will tell us how to keep our bodies healthy.
- Dr. Sara:** Thank you for having me on your show Khadija.
- Khadija:** People say a lot of foods are good for us for many reasons. Some of those reasons may not be true. For example, people say we should eat carrots to see better. Is that true?
- Dr. Sara:** Fruits and vegetables are always good for us because they have vitamins. We should eat them every day. Carrots have a lot of vitamin A. Vitamin A makes our eyes healthier. So yes, carrots are good for our eyes.
- Khadija:** How about spinach? Some people think spinach makes you stronger? Is that true?
- Dr. Sara:** Well ... not really. Spinach is good for you because it has vitamins, but it doesn't help you make muscle.
- Khadija:** That's too bad. What about beans? Some say they are a great way to get muscles. Is that true?
- Dr. Sara:** Of course. Beans have a lot of protein. Our bodies use protein to make muscle.
- Khadija:** Oh, okay. So beans make muscle. Are there any other foods we should eat?
- Dr. Sara:** Yes. Garlic is very good for you. It does many things for our bodies. For example, garlic helps us not get sick.
- Khadija:** That's good to know. Carrots, spinach, beans and garlic are foods we can eat to make our bodies healthy. Everybody should eat these foods! Is there anything else we should do for good health?
- Dr. Sara:** Of course. Eating good food is one big part of being healthy, but exercise is also important. We should do more exercise to make our bodies healthy and strong. There are plenty of other things that people can do to stay healthy.
- Khadija:** Hmmm, interesting...

Audio Track 2

Use Fast Health on Wheels now! We are the newest healthy food delivery service in the UAE! Eating a healthy diet isn't always easy but our delivery service will help you. First, you should always start the day with a healthy breakfast. It allows you to have enough energy during the day. We have delicious options. Our quick delivery service will provide tasty lunch and

dinner options also. These meals are great because they have the correct amount of proteins and carbs to help you have a balanced diet. Our meals all have food from every food group including, fresh fish and chicken with a lot of protein, brown rice with healthy carbs, and fresh vegetable and fruit salads. You shouldn't eat foods with a lot of fats because you will be unhealthy and become over weight. Our meals include vegetables and fresh fruits to give your body the vitamins it needs to be healthy and strong. You should also drink plenty of water and other low fat drinks. Our choices of food are low in fat, high in vitamins and very healthy. So, get healthy fast in a convenient way now. We have millions of happy customers all around the UAE and you should join them. Ask yourself, "why shouldn't I?" Our quick delivery service will go directly to your doorstep. Use Fast Health on Wheels today!

Audio Track 3

On today's cooking show I want to talk about something important. Food waste. The food that we throw away every day.

The world wastes a lot of food. Did you know that people around the world waste about 40% of all food? Why is this a problem? Because we have to make more and more food. It means there is more trash and more plastic... both food and plastic waste. Where does this waste go? And think about the people in the world who don't have food...

Audio Track 4

So how can we waste less food?

We should try to use all ingredients when we cook. Don't throw things away! We can always use them. Choose food carefully. Don't eat too much and don't order too much food at restaurants. Eat all your food. When you eat fruit, like apples or bananas, cut it into small pieces. This makes it easier to eat. Finally, think about plastic waste. We shouldn't throw away plastic bottles. Use them again, or recycle them.

Unit 8

Audio Track 5

In this documentary, you will learn about robotics. What makes a robot? What can robots do?

Robotics is an exciting and growing field of engineering. In the future, robots will be doing more things that used to be done by humans. In the future, robots could build things for us, drive our cars, even be our doctors! The United Arab Emirates will use more and more robots, and will be one of the leaders in

building new and helpful robots.

A robot is very similar to the human body. We need different parts to live and move. So do robots. There are five robot parts that are very important.

The control system is the part of the robot that tells the other parts what to do. It is similar to the human brain. It thinks and reacts to things. Without the control system, the robot would not do anything on its own.

The power supply gives power to the robot, which it uses to move its parts. Without a power supply, the robot cannot move. It works in the same way as a human heart.

The frame holds up the robot parts. If the robot did not have a frame, the rest of its parts would fall to the ground. The frame works in the same way as our skeleton.

The tool is the hand at the end of the arm. The robot uses this to pick up and move things. They can also be tools like a knife or a laser. The robot would not be able to do move anything without its tools.

Sensors are the cameras and microphones that lets robots see and hear the world around them. They are its eyes and ears. Without sensors, the robot would not know what is happening around it.

The robot needs each of these parts to work and move. When building robots, engineers always include these parts in their design.

Audio Track 6

- Message 1:** Hello? My cleaning robot isn't working! It is breaking everything. It keeps dropping things it is holding. It can't pick anything up. What's wrong with it? Please help!
- Message 2:** Hi Mister Robot Mechanic. Maybe you can help me? My robot's arm isn't working. It can't move its arm up or down. It can't help me paint my house. What should I do?
- Message 3:** Hey, maybe you can help? My robot isn't turning on. I press the "on" button but the lights are dark and the motors don't start. Who will move my boxes?
- Message 4:** Good morning! I'm very angry with my robot! It keeps stepping on my flowers and hitting the wall in the garden. It can't see where it is going. My garden is a mess! Please fix it!

Audio Track 7

"One Wish"

By Wahid Ellis

Long ago...

There was once a small and poor village,
that was hot and very dry.

The people that lived there wished for one thing
That would hopefully get them by.

At night, they would look at the starry skies,
and wish for that one thing that would help them survive.

Then one day the clouds began to roll,
the wind began to whistle and sing.

Drip,

Drop,

came down the rain.

It was all a wonderful thing.

Finally, they were happy.

Their wish had come true.

They could now live in peace

Under skies of cool blue.

Unit 5

Audio Track 8

Radio presenter: Hello. We've talked to Emirati teenagers and asked them the reasons why they are learning a second language. Let's hear what they had to say!

Saeed: Hi, my name is Saeed. Umm, my reason for learning a second language? Well, my family has a cheese-making business in France. My father communicates with many French people every day. The reason I'm learning French is because I want to continue the family business. Au revoir!

Zayed: Hello, I'm Zayed. You want to know why I'm learning German? My dream is to become an engineer. Germany has some of the best engineering universities. This is the reason why I'm learning German. I really want to study in Germany. Auf Wiedersehen!

Alia: Hi there. I am Alia from Kalba. I'm learning English because I am very friendly and I like meeting new people. I want to visit many foreign countries. Many people around the world speak English as a second language. So it I want to communicate with many different people. I need to learn English! Goodbye!

Jamila: Hi, my name is Jamila. I am studying to be a translator. I want to translate Chinese and Arabic. There are many Chinese tourists and businesspeople that visit the UAE every day.

Bader:

so I think translating Arabic and Chinese is very important for our country. Zāijān!

Hey there, I'm Bader and I'm learning Spanish. You want to know the reason? Because it is a challenge! Many people say learning a second language is difficult, but for me it is a hobby. I spend an hour or two every day learning and practicing my Spanish. I think it's fun! And learning a second language makes you smarter! Adios!

Audio Track 9

Make the UAE your next travel destination! You will have an amazing vacation! There are many places to go and things to see. All the Emirates have wonderful things to offer. From Abu Dhabi to Dubai, Sharjah, Umm al-Qaiwain, Ajman, Fujairah and Ras Al Khaimah, the UAE is truly a special place! Each of these places have both traditional and modern things to see and do!

Dubai is an amazing place to visit! With a population of around 2.9 million people, it is the most populated Emirate. In 2016, Dubai had over 14 million visitors and in 2017, it rose to around 16 million. You can go to the Dubai Mall, the world's biggest shopping mall with 1,200 shops. There are also many restaurants to choose from. You can see the tallest building in the world, the Burj Khalifa. This stunning building opened in 2010 and is 2,722 feet tall. While there you can watch the beautiful water fountain show!

In Ras Al Khaimah, you can climb the highest mountain in the UAE, Jebel Jais, which is 1,910 meters tall. It is great for mountain climbing and mountain biking. It also has great views! If you like dates you can visit one of the top date farms in the UAE. They have 18 different types of dates there! Also in Ras Al Khaimah, there are over 62 kilometers of white sandy beaches, with clear blue water, where you can do watersports.

In 2015, Sharjah was named the Tourism Capital of the UAE. It is the 3rd largest Emirate and the 3rd most populated with 1.4 million people. To see the beautiful history and learn traditional things, you can go to the Sharjah Art Museum and the Sharjah Museum of Islamic Civilization.

There are many other places you can visit in the other Emirates as well, like in Abu Dhabi, you can go to the beautiful Sheikh Zayed Grand Mosque and have fun at Ferrari World! Ajman, Fujairah and Umm Al Quwain also have many great places to see! Travel to the UAE and explore this beautiful destination!

UAE 5

Audio Track 10

When you look at nature, do you see shapes? At first, it might seem like mountains, trees and rocks don't have any real shape. If you look at a tree, do you see a square? If you look at water, do you see a circle? It doesn't seem like things in nature really have any clear shape.

But if you look closer, you might be surprised. There are shapes everywhere if you know where to look. You see, there are patterns in nature.

A pattern is something that repeats over and over. If you put the same shapes together, they form a pattern. Look at the floor in your classroom. Are there tiles? That's a pattern of squares. All those squares repeat and form a pattern.

You can find patterns in nature. If you look at the Arabian leopard, its fur has spots. The spots are in the shape of circles. All the spot circles on its fur make a pattern. We call a pattern of circles a circular pattern.

Some animals also make patterns. Think of a spider making a web. The web makes a pattern. If you look at honeycombs, you will see that bees make each honeycomb in the shape of a hexagon. Honeycombs together make a hexagonal pattern.

People build things in patterns too. If you look at the shell of a snail, you see a spiral pattern. Now, look at the picture of the staircase. This is called a spiral staircase. It follows the same spiral pattern. Engineers, artists and architects have always copied patterns when making things. If it works in nature, it works for us!

Audio Track 11

1. spiral
2. triangle
3. triangular
4. hexagon
5. hexagonal
6. circle
7. circular

Audio Track 12

Welcome to the New Museum of Islamic Art. We have many beautiful examples of different types of Islamic art. These come from many different places.

First, we have a fine example of calligraphy. If you look at the picture to my right, you can see a photo of the ceiling of the Sultan Ahmed Mosque, also known as the Blue mosque, in Istanbul, Turkey. It was built between 1609 and 1616. The letters are painted in gold on a beautiful blue background. Many were painted by the famous calligrapher Seyyid Kasim Gubari. The Blue mosque also has beautiful mosaics of flowers and plants.

Next, we have a picture of a staircase in the Jame'Asr Hassanil Bolkiah Mosque in Bandar Seri Begawan, Brunei. It was built in 1994. The ceiling has wonderful carved stars. The outside of the stars are in gold. It looks great on the all-white ceiling.

Finally, if you look to the left, we have a wonderful picture of some mosaics from Bibi-Khanym Mosque in Samarkand, Uzbekistan. It was built in 1404. The entrance to the mosque has beautiful blue and gold mosaics showing different geometric patterns. The dome of the mosque is also covered in dark blue tiles.

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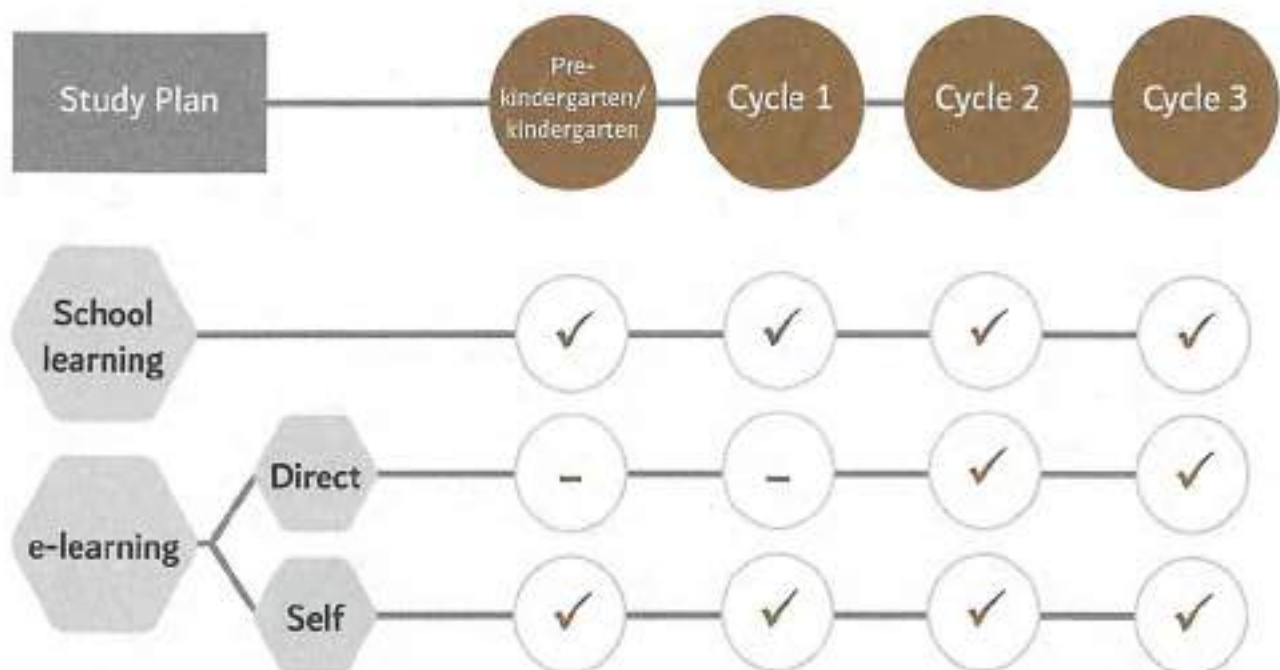
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Student Notes

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Hybrid education in the Emirati school

Within the strategic dimension of the development plans in the Ministry of Education, and its endeavor to diversify education channels and overcome all the challenges that may prevent it, and to ensure continuity in all circumstances, the Ministry has implemented a hybrid education plan for all students at all levels of education.



Channels for obtaining a textbook:



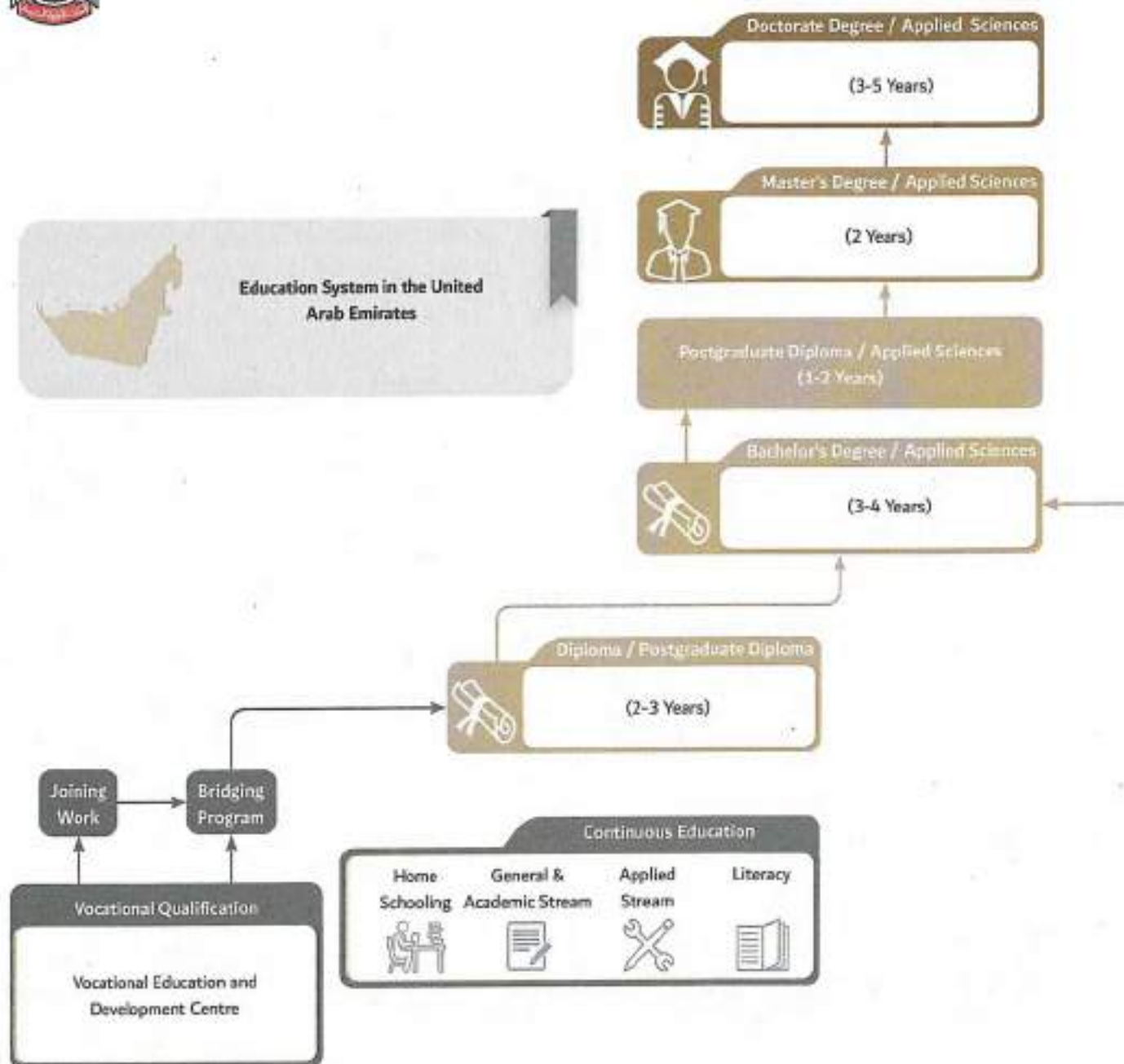
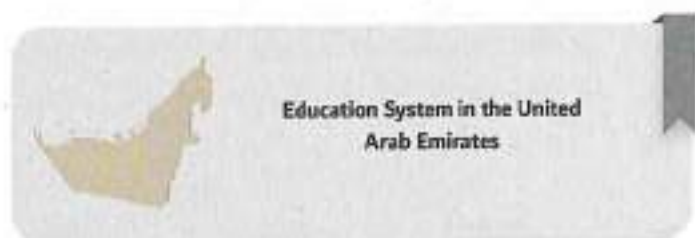
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Smart Learning Program

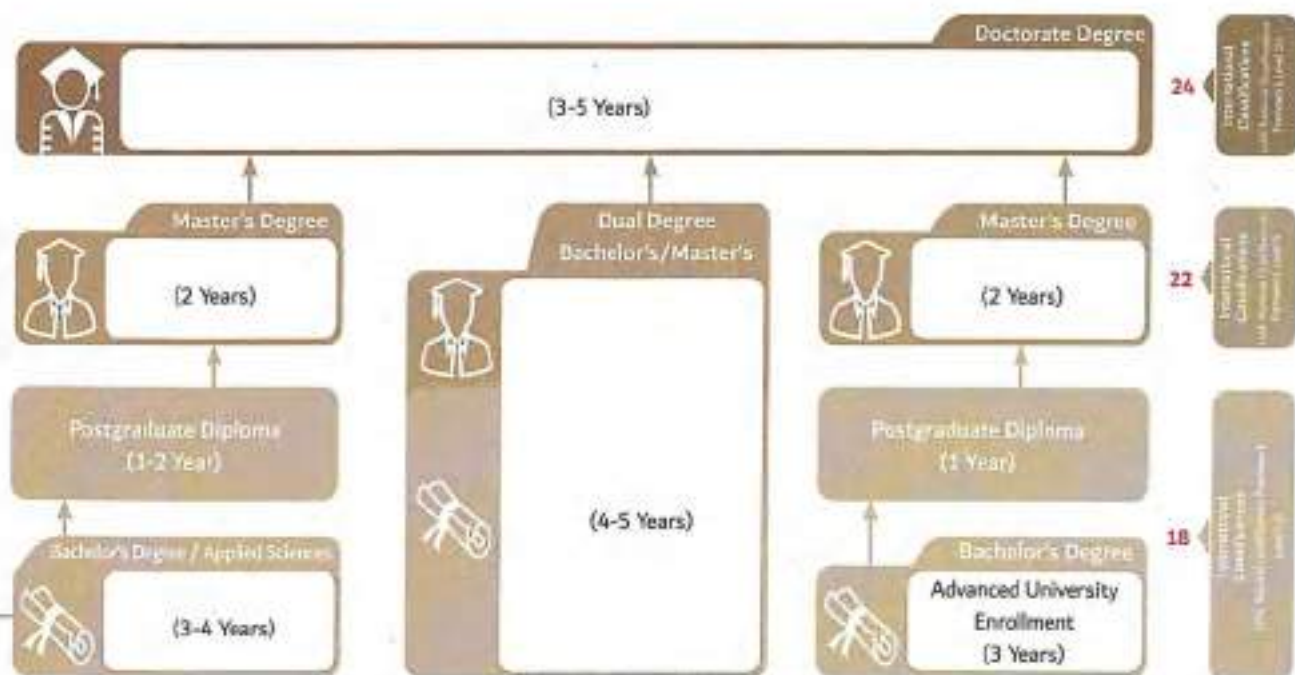
Electronic units





UNITED ARAB EMIRATES
MINISTRY OF EDUCATION



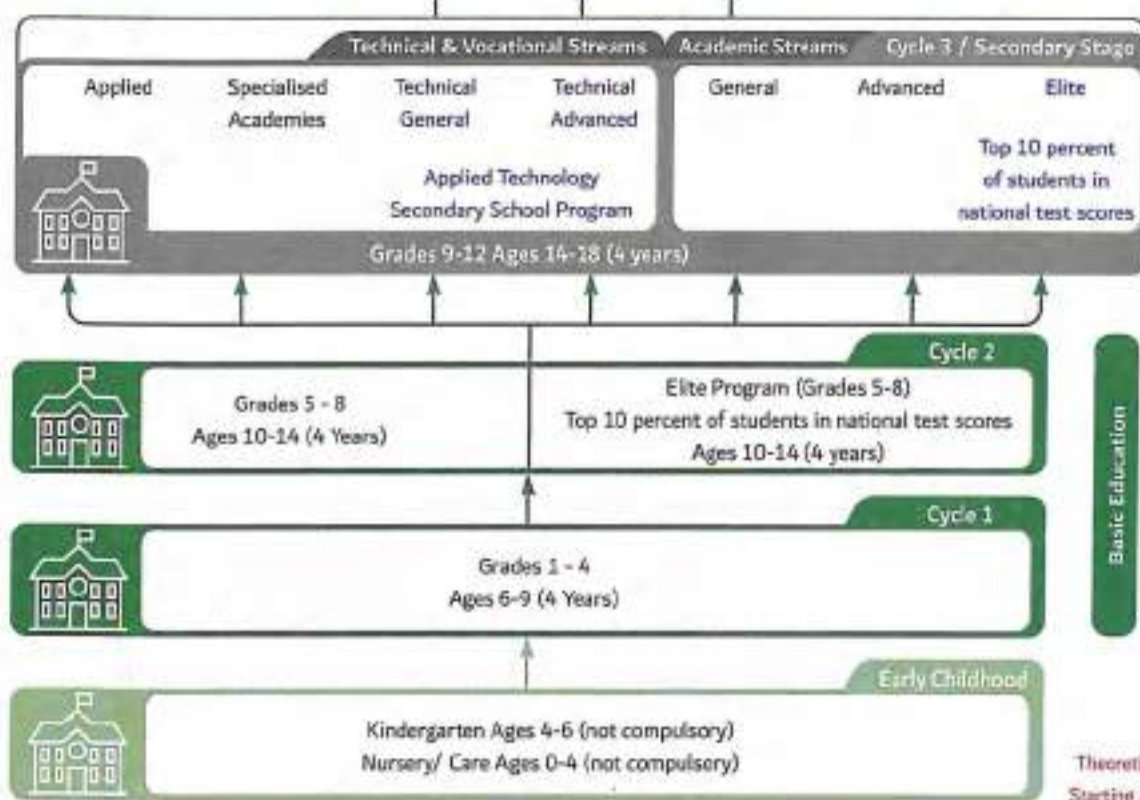


The Ministry coordinates with national higher education institutions to admit students in various majors in line with the needs of the labour market and future human development plans. Higher Education institutions also determine the number of students that can be admitted according to their capabilities, mission and goals. They also set the conditions for students' admission to various programmes according to the stream they graduated from, the levels of their performance in the secondary stage, and their results from the Emirates Standard Assessment Test.

Integration and coordination between General and Higher Education systems allow for the approval and calculation of school study courses within university studies according to the school stream and university specialisation, which reduces the duration of university studies.

18

International Qualifications (Level 3-5)



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ASP Elite Stream

English 7

2020-2021

Coursebook

ASP English is a bespoke course that is tailored to learners studying in the ASP Elite Stream.

The course sets out to:

- Align to international benchmarks of the Common European Framework.
- Take an integrated STEAM approach to learning as activities promote inquiry-based learning, collaboration and critical thinking.
- Expose learners to authentic scenarios that will build on fluency and encourage language acquisition.
- Improve overall and specific linguistic performance through content and language integrated learning.
- Enable learners to become academically proficient in the English language, preparing Emirati youth for a global society.



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