



3

Get Close

ENGLISH FOR BACHILLERATO DE LA UAS

ROBIN LONGSHAW • SARAH BROWN • BECKY TARVER CHASE



Australia • Brazil • Japan • Korea • Mexico • Singapore • Spain • United Kingdom • United States

Get Close, Student Book 3 *Sarah Brown*

Publisher: Sherrise Roehr

Executive Editor: Sarah Kenney

Senior Development Editor: Margarita Matte

Assitant Editor: Becky Long

Director of Global Field Marketing: Ian Martin

Interior Design and Composition: Miriam Gómez Alvarado
Israel Muñoz Olmos

Illustration: Oscar Hernández

Cover Design: Israel Muñoz Olmos

© 2019 National Geographic Learning, a Cengage Learning Company

ALL RIGHTS RESERVED. No part of this work covered by the copyright herein may be reproduced or distributed in any form or by any means, except as permitted by U.S. copyright law, without the prior written permission of the copyright owner.

"National Geographic", "National Geographic Society" and the Yellow Border Design are registered trademarks of the National Geographic Society
® Marcas Registradas

For product information and technology assistance, contact us at
Cengage Learning Customer & Sales Support,
cengage.com/support

For permission to use material from this text or product,
submit all requests online at www.cengage.com/permissions

Further permissions questions can be emailed to
permissionrequest@cengage.com

Student Edition ISBN: 978-0-3571-1478-0

National Geographic Learning

20 Channel Center Street
Boston, MA 02210
USA

National Geographic Learning, a Cengage Learning Company, has a mission to bring the world to the classroom and the classroom to life. With our English language programs, students learn about their world by experiencing it. Through our partnerships with National Geographic and TED Talks, they develop the language and skills they need to be successful global citizens and leaders.

Locate your local office at international.cengage.com/region

Visit National Geographic Learning online at NGL.Cengage.com/ELT
Visit our corporate website at www.cengage.com

TABLE OF CONTENTS

Unit 1 What do you Care About?

Theme 1 Changes

page 2

Video

page 11

Theme 2 Solutions

page 16

World Heritage Spotlight: Mystery Lines

page 30

Unit 2 Health and Carefulness

Theme 3 Health

page 32

Theme 4 Cause and Effect

page 46

Video

page 55

World Heritage Spotlight: Ancient Capitals

page 60

Unit 3 Contributions to the World

Theme 5 Nature

page 62

Theme 6 The Future

page 76

Acknowledgements 2019

The authors and editors would like to thank the following educators for their invaluable work in reviewing this series:

Martín Benedicto Lizárraga García

Mariela Guerrero Amarillas

Simón Martín Díaz Quiñonez

CORRELACIÓN CON COMPETENCIAS

Unidad 1 What do you care about?	Competencias Genéricas	Competencias Disciplinarias
Tema 1 Changes	Se expresa y se comunica	Comprende la intención y el propósito comunicativo de los diversos tipos de discurso oral. Comprende la noción de las propiedades del texto.
	Trabaja en forma colaborativa	Reconoce que la lectura es el resultado de una interacción entre el texto y el lector y aplica las estrategias necesarias de acuerdo con el propósito del texto y del lector.
	Piensa crítica y reflexivamente	Utiliza procedimientos y estrategias de la comunicación escrita y reconoce la importancia de evaluar las producciones, tanto propias como ajenas, con criterios objetivos de corrección, coherencia, propiedad y creatividad.
	Aprende de forma autónoma	Se expresa en forma coherente, creativa y adecuada a diversas situaciones y finalidades; acentúa las destrezas comunicativas propias del diálogo, que requieren el trato con otras personas y la práctica expositiva pública. Desarrolla estrategias para hacerse comprender en lengua extranjera, en situaciones comunicativas cotidianas, mediante convenciones lingüísticas y recursos no lingüísticos. Conoce aspectos elementales sobre el origen, desarrollo y riqueza de una lengua extranjera.
Tema 2 Solutions	Se expresa y se comunica	Comprende la intención y el propósito comunicativo de los diversos tipos de discurso oral. Se expresa en forma coherente, creativa y adecuada a diversas situaciones y finalidades; acentúa las destrezas comunicativas propias del diálogo, que requieren el trato con otras personas y la práctica expositiva pública.
	Trabaja en forma colaborativa	Reconoce que la lectura es el resultado de una interacción entre el texto y el lector y aplica las estrategias necesarias de acuerdo con el propósito del texto y del lector.
	Piensa crítica y reflexivamente	Utiliza procedimientos y estrategias de la comunicación escrita y reconoce la importancia de evaluar las producciones, tanto propias como ajenas, con criterios objetivos de corrección, coherencia, propiedad y creatividad.
	Aprende de forma autónoma	Desarrolla estrategias para hacerse comprender en lengua extranjera, en situaciones comunicativas cotidianas, mediante convenciones lingüísticas y recursos no lingüísticos. Conoce aspectos elementales sobre el origen, desarrollo y riqueza de una lengua extranjera. Comprende la noción de las propiedades del texto.
Unidad 2 Health and Carefulness	Competencias Genéricas	Competencias Disciplinarias
Tema 3 Health	Se expresa y se comunica	Conoce aspectos elementales sobre el origen, desarrollo y riqueza de una lengua extranjera. Comprende la intención y el propósito comunicativo de los diversos tipos de discurso oral.
	Trabaja en forma colaborativa	Comprende la noción de las propiedades del texto.
	Piensa crítica y reflexivamente	Reconoce que la lectura es el resultado de una interacción entre el texto y el lector y aplica las estrategias necesarias de acuerdo con el propósito del texto y del lector.
	Aprende de forma autónoma	Utiliza procedimientos y estrategias de la comunicación escrita y reconoce la importancia de evaluar las producciones, tanto propias como ajenas, con criterios objetivos de corrección, coherencia, propiedad y creatividad. Se expresa en forma coherente, creativa y adecuada a diversas situaciones y finalidades; acentúa las destrezas comunicativas propias del diálogo, que requieren el trato con otras personas y la práctica expositiva pública. Desarrolla estrategias para hacerse comprender en lengua extranjera, en situaciones comunicativas cotidianas, mediante convenciones lingüísticas y recursos no lingüísticos.

	Competencias Genéricas	Competencias Disciplinarias
Tema 4 Cause and Effect	Se expresa y se comunica	Se expresa en forma coherente, creativa y adecuada a diversas situaciones y finalidades; acentúa las destrezas comunicativas propias del diálogo, que requieren el trato con otras personas y la práctica expositiva pública. Comprende la intención y el propósito comunicativo de los diversos tipos de discurso oral.
	Trabaja en forma colaborativa	Comprende la noción de las propiedades del texto.
	Piensa crítica y reflexivamente	Reconoce que la lectura es el resultado de una interacción entre el texto y el lector y aplica las estrategias necesarias de acuerdo con el propósito del texto y del lector.
	Aprende de forma autónoma	Utiliza procedimientos y estrategias de la comunicación escrita y reconoce la importancia de evaluar las producciones, tanto propias como ajenas, con criterios objetivos de corrección, coherencia, propiedad y creatividad. Desarrolla estrategias para hacerse comprender en lengua extranjera, en situaciones comunicativas cotidianas, mediante convenciones lingüísticas y recursos no lingüísticos. Conoce aspectos elementales sobre el origen, desarrollo y riqueza de una lengua extranjera.

	Competencias Genéricas	Competencias Disciplinarias
Unidad 3 Contributions to the World		
Tema 5 Nature	Se expresa y se comunica	Desarrolla estrategias para hacerse comprender en lengua extranjera, en situaciones comunicativas cotidianas, mediante convenciones lingüísticas y recursos no lingüísticos. Comprende la intención y el propósito comunicativo de los diversos tipos de discurso oral. Comprende la noción de las propiedades del texto.
	Trabaja en forma colaborativa	Reconoce que la lectura es el resultado de una interacción entre el texto y el lector y aplica las estrategias necesarias de acuerdo con el propósito del texto y del lector.
	Piensa crítica y reflexivamente	Utiliza procedimientos y estrategias de la comunicación escrita y reconoce la importancia de evaluar las producciones, tanto propias como ajenas, con criterios objetivos de corrección, coherencia, propiedad y creatividad.
	Aprende de forma autónoma	Se expresa en forma coherente, creativa y adecuada a diversas situaciones y finalidades; acentúa las destrezas comunicativas propias del diálogo, que requieren el trato con otras personas y la práctica expositiva pública. Conoce aspectos elementales sobre el origen, desarrollo y riqueza de una lengua extranjera.
Tema 6 The Future	Se expresa y se comunica	Se expresa en forma coherente, creativa y adecuada a diversas situaciones y finalidades; acentúa las destrezas comunicativas propias del diálogo, que requieren el trato con otras personas y la práctica expositiva pública. Comprende la noción de las propiedades del texto.
	Trabaja en forma colaborativa	Reconoce que la lectura es el resultado de una interacción entre el texto y el lector y aplica las estrategias necesarias de acuerdo con el propósito del texto y del lector.
	Piensa crítica y reflexivamente	Utiliza procedimientos y estrategias de la comunicación escrita y reconoce la importancia de evaluar las producciones, tanto propias como ajenas, con criterios objetivos de corrección, coherencia, propiedad y creatividad.
	Aprende de forma autónoma	Desarrolla estrategias para hacerse comprender en lengua extranjera, en situaciones comunicativas cotidianas, mediante convenciones lingüísticas y recursos no lingüísticos. Conoce aspectos elementales sobre el origen, desarrollo y riqueza de una lengua extranjera. Comprende la intención y el propósito comunicativo de los diversos tipos de discurso oral.

SCOPE AND SEQUENCE

Unit 1: What do you care about?

Unit 2: Health

	Theme 1 Changes	Theme 2 Solutions	Theme 3 Health
Focus	weather descriptions; problems and solutions (climate change); the future, personal goals and decisions	the home; problems and solutions; suggestions; the future; plans; descriptions	advice / suggestions; problems; beliefs; goals
Functions	making general and personal predictions; describing the weather; describing personal goals; describing future plans; talking about food and drink	describing problems; asking for and giving suggestions; describing future plans	asking for and giving suggestions and advice; describing personal goals; talking about diet and health
Grammar	<i>will</i> (affirmative, negative, interrogative) w/ <i>definitely</i> and <i>probably</i> for predictions and probability; <i>will</i> for decisions; <i>may</i> , <i>could</i> , and <i>may not</i> for future plans	possessive pronouns; <i>should</i> (affirmative, negative, interrogative) for advice; <i>could</i> , <i>must</i> , <i>have to</i> for advice; <i>going to</i> for plans and predictions	regular simple past; advice structures with gerund or infinitive; past progressive; modal verbs (<i>could</i> , <i>might</i> , <i>may</i> , <i>must</i> , <i>can't</i>) for belief
Vocabulary	normal weather; extreme weather; climate change; food; vacation activities	parts of a house and furniture; two-part verbs; typical problems; jobs; public places	illnesses and injuries; remedies and treatments; extreme sports
Listening	listening for gender and number; listening for specific details	listening for location; listening for gist; listening for specific details	listening for affect; listening for gist; listening for details
Speaking	giving and asking for opinions; comparing ideas; agreeing and disagreeing; making decisions in a restaurant; asking and answering about future plans	describing problems; giving advice; asking for and giving opinions	asking for and giving advice about health problems; asking and answering questions about goals;
Pronunciation	stressed and unstressed syllables	initial -s consonant clusters	regular past tense endings
Reading	reading about extreme weather; <i>UFO Clouds</i>	reading an article about neighborhood work; <i>A Dangerous Job: Smokejumpers</i>	reading about health issues; <i>Super Foods from Mexico to the World</i>
Writing	writing a conservation newsletter	writing an e-mail	writing a webpage
Project	Climate Change Poster (on website)	Jobs of the Future	Optional: Diet and Health Report
Video	Solar Cookers		

and Carefulness

Unit 3: Contributions to the World

Theme 4 Cause and Effect	Theme 5 Nature	Theme 6 The Future
ability, discoveries, achievements; cause and effect; things that are generally true	health problems; inventions and discoveries; scientific processes	the environment and global warming; urban planning and environmental; changes; natural and
describing ability; talking about achievement; making offers, threats and suggestions; talking about emergencies	talking about discoveries and inventions, describing actions (past and present); describing processes; giving factual information; explaining cause and effect; talking about communication	describing actions that are in progress; giving factual information; talking about future accomplishments; describing problems and solutions; talking about possibility
irregular simple past; <i>be able to</i> (affirmative, negative, interrogative) different tenses; present perfect; first conditional	verb tenses contrasted (simple past, past progressive); verb tenses contrasted (simple past, present perfect); zero conditional; comparing zero conditional and first conditional	present perfect progressive; verb tense review (present perfect, present perfect progressive); modal verbs for possibility; first conditional with modals
places of interest (local, national, international); verbs for talking about actions and processes; money verbs; emergency items	illnesses; scientific processes; conservation	space; housing; climate change and the environment
listening for speaker; listening for gist; listening for details	listening for setting; listening for relationship; listening for gist; listening for details	listening for age; listening for affect; listening for gist; listening for detail
describing famous places and civilizations; giving opinions about what to do in emergencies	describing activities; giving definitions; describing consequences	discussing housing; asking and answering questions for a survey; discussing future goals
different spellings of same vowel sound	sentence stress	stress and intonation patterns with modal verbs
reading an article about developing ideas; <i>A Camera as a Passport</i>	reading about the natural world; <i>Do Animals Laugh?</i>	reading an article about planned communities; <i>Living on the Red Planet</i>
writing an encyclopedia article	writing a magazine article	writing a webpage about "greener" cities
Inventors Who Changed the World	Optional: How Animals Communicate	Living in Space
Stress		

CHANGES



THEME

UNIT 1

2

1

Opening Activity

Look at the picture and answer the questions.

1. Is this happening in the city or the country?
How do you know?
2. What does the sky look like?
3. How can you describe the weather? Why do you think that?



Theme Goals

In this theme, you will learn to:

- talk about the weather.
- talk about food.
- talk about leisure activities.
- use *will* + verb for predictions.
- use *will* + verb for decisions.
- use *may (not)* and *could* to talk about future plans.

LESSON A TODAY'S CLIMATE WILL BE...

A Vocabulary in Context Study the photos of weather words.



dry

Weather words

Sometimes we say, *There will be rain.* Sometimes we say, *It'll be rainy.* Look at these pairs of words:

Nouns/Adjectives

- rain/rainy;
- sun/sunny;
- wind/windy;
- cloud/cloudy



degrees



wind



cold



clouds



rain



hot



sun

- wind
- degrees
- cold
- clouds
- dry
- rain
- hot
- sun

B Vocabulary in Action Listen to the weather report. Circle the words in the box that you hear. Then listen again and check your answers.

C Complete each sentence with a word from **A**. You won't need all the words.

1. There is a lot of rain today, so there's no soccer game.
2. A thermometer shows the temperature in _____ Centigrade.
3. I see dark _____ in the sky—a storm is coming!
4. Maribel is tired of rain and more rain! She wants to see the _____.
5. It is usually very hot and _____ in the Sonoran Desert.
6. The temperature is only five degrees today—that's really _____!

D Grammar in Context Study the chart.

Will for predictions

Questions	Affirmative sentences	Negative sentences
What will the weather be like next week?	It will be hot and dry in Morelia. It 'll be rainy in Cancún.	It won't be cloudy and rainy in Morelia. It won't be sunny in Cancún.
Will it be windy this afternoon?	Yes, it will . Yes, it 'll be windy.	No, it won't . No, it won't be windy this afternoon.

Use **will + verb** to make predictions when there is some evidence, but not 100% certainty. **Won't** is the contraction of **will not**. Contract **will** to **'ll** with pronouns.

E Grammar in Action Unscramble the sentences and questions.

- will weather on like be Wednesday What the ?
What will the weather be like on Wednesday?
- cold won't July in It be

- it in sunny León Will tomorrow be ?

- be in Puebla will It hot Tuesday on

- this rainy It'll in be Ciudad Victoria week

F Write sentences with **will/'ll** or **won't + be**. Use the words in the box and the sentence cues.

- It won't be rainy in Monterrey. (in Monterrey)
- _____ (on Tuesday)
- _____ (next week)
- _____ (in Colima)
- _____ (tomorrow)

cloudy
cold
degrees
dry
hot
rainy
sunny
windy

G Communicate Write affirmative and negative weather predictions for your city or state in your notebook. Then compare your predictions with your partner's.

It'll be sunny in Hermosillo on Monday.

It won't be cold in Hermosillo next week!



A

H Vocabulary in Context Read the article. Look at the pictures.



B



C



D



E



F



G



H

☐ ☐ ☒
📺 Video 📷 Photo 💬 Discuss ➔ Related

Extreme Weather Week!

Every year, there is more extreme weather. No matter where you live in Mexico, you will probably see some kind of extreme weather in the future.

Hurricanes hit the coasts with powerful wind and rain. They can cause **floods** that cover the ground with water in just a few minutes.

Thunderstorms bring dangerous **lightning** and **hail**. **Tornadoes** destroy trees, cars, and houses with their strong winds.

Heat waves push temperatures over 30 degrees. **Droughts** dry the land out completely.

Watch Nature TV next week. You'll learn more about extreme weather and how it can affect you. You'll also learn about small changes that can make the world better.

I Vocabulary in Action Match the pictures to the words in the box.

thunderstorm	hail	heat wave	hurricane
<i>c</i>			
flood	drought	lightning	tornado

J Look at the extreme weather words in the box in I. Does each weather condition have wind or water? Both? Neither? Write each word in the correct column.

wind	water	both	neither
	<i>hail</i>		

K Grammar in Context Study the chart.

Adverbs of probability

Examples	Explanations
It will probably rain tomorrow. There definitely won't be thunderstorms this afternoon.	Use adverbs like <i>definitely</i> and <i>probably</i> to show the probability of a prediction. <i>Definitely</i> = 100% certain <i>Probably</i> = at least 50% certain
The temperature will definitely rise.	Put the adverb between <i>will</i> and the verb in affirmative sentences
There probably won't be a tornado today.	Put the adverb before <i>won't</i> in negative sentences.

L Grammar in Action Circle the correct words to complete each statement.

- There (will probably be / will be probably) a thunderstorm in Cuernavaca tonight.
- Fifty centimeters of rain (probably will / will probably) fall.
- The temperature (definitely won't / won't definitely) go above 25 in Matamoros today.
- During the heat wave the temperature (will reach probably / will probably reach) 33 degrees.
- We (won't probably / probably won't) have lightning and hail tomorrow.

M Look at the adverbs of probability in the sidebar. Rewrite the sentences with the correct adverb.

- It will get hot this afternoon. (100%)
It will definitely get hot this afternoon.
- The drought won't continue for six months. (50%)

- The hurricane will have wind and rain. (100%)

- Twenty centimeters of rain will fall this weekend. (50%)

- There won't be a tornado tonight. (100%)

50%
probably

100%
definitely

N Communicate Make predictions about extreme weather for three cities. Use adverbs of probability plus the expressions in the box. Share your predictions with your partner.

will have a thunderstorm/tornado/hurricane
rain/hail/snow
temperatures will fall / wind will blow
temperatures/flood waters will rise

We will probably have a hurricane in Tamaulipas this summer.

I don't agree. We definitely won't have a hurricane this summer.

LESSON B MAKING PLANS

Juan
Sara
Tomás

A Vocabulary in Context Listen to the conversation. Write the name of the person speaking above his/her vacation ideas.



go fishing
grilled fish
fruit



ride bikes
have a picnic
fried chicken
salad



swim
play volleyball
fruit
ice cream

have a picnic
go fishing
grilled fish
fried chicken
fruit
ice cream
play volleyball
salad
ride bikes
swim

B Vocabulary in Action Put each word from the box in the correct category.

Food	<i>grilled fish</i>				
Activities					

C Communicate Think about your next vacation. In your notebook, write two activities you want to do, and two foods you want to eat. Then talk to a partner about your plans.

What do you want to do on your next vacation?

I want to _____.
What about you?

And I want to eat _____!

D Grammar in Context Study the chart.

Will for decisions

Examples

- A: Samuel's bus arrives in an hour.
 B: I'll **meet** him at the station.
 A: I'm late for school.
 B: OK. I'll **drive** you.

Explanations

Use **will + verb** to announce decisions. When we make a decision, we are doing it in the moment. It isn't a plan that we made in the past.

E Grammar in Action Look at each situation. Make a decision or solve the problem. What are you going to do at this moment? Use the verbs in the box.

answer
buy
get
help
take

- You have 20 pesos and you're thirsty.

I'll buy a Coke.
- There's a good movie playing tonight.

- Your mother is carrying three heavy bags up the stairs.

- Your friend has an extra ticket to a concert.

- The phone is ringing.

F We can use **will** to make prediction and decisions. What are the people in these sentences making? Circle the correct word.

- Tomorrow, it will be hot and sunny in Guadalajara. (decision / prediction)
- Thanks for the money, Aunt Meche. I'll save it for vacation. (decision / prediction)
- Wow! It's raining a lot today. We'll go to the park tomorrow, OK? (decision / prediction)
- There will be a lot of interesting things to see in Veracruz. (decision / prediction)
- I'll have a chicken salad and some fruit, please. (decision / prediction)
- This weekend, we'll have cold, windy weather in Chihuahua. (decision / prediction)

G Communicate Talk with a partner. Make decisions in a way that is true for you. Use the cues in the parentheses.

- (Decide where to go for vacation.)

Do you like hiking or swimming?

I like hiking. I'll go to the mountains for vacation.

- (Decide what to eat for dinner.)
- (Decide who to visit next weekend.)
- (Decide what to do after school.)



H Language Builder Study the chart.

We never add **-s** to **will, may, or could**. These words are also never preceded by **to** or followed by the **-ing** form of the verb

May (not) and could for future plans

Examples

It **may** rain today.
We **may not have** good weather today.
We **could see** a movie today, or we **could go** to the mall instead.

Explanations

Use **may (not)** + verb to talk about possibilities in the future.
Use **could** + verb to make suggestions about the future.
(We don't use **could not** to make suggestions.)

I Listening Listen to the conversation and answer each question.



6

1. How does Raúl feel about his vacation?

2. How do you know he feels that way?

J Listen to the conversation again and write **may** or **could** to complete each sentence.



6

1. He _____ *could* _____ go hiking in another state.
2. He _____ also go at a different time of year.
3. For his next vacation, he _____ go with his cousin Mario.
4. He _____ not go hiking again for a long time!
5. Next time, he _____ just relax on the beach, swim, and play volleyball.
6. He _____ even stay home!



Solar Cookers

A Before You Watch Do you know these words? Look at the pictures and read the words.



B While You Watch As you watch the video, listen for these words. Circle the words you hear.

cook degrees fish hot sun wet wind

C After You Watch Check your understanding. Read the sentences and circle **T** for *true* and **F** for *false*.

- 1. It is possible to use the sun to cook many kinds of food. T F
- 2. Solar cooking isn't very important in developing countries. T F
- 3. It is safer to cook with solar energy than with wood. T F
- 4. Solar cooking can't make water safe to drink. T F



D Communicate Talk with a partner about a way to save energy.

You can cook with the sun.

That's a great idea.

LESSON C SAVE ENERGY AND \$

A Listening in Context Listen to the conversation.



How many people are speaking? Are they boys or girls?



turn off the lights
ways to help
"Don't waste water!"
"Tell a teacher!"
check for water leaks
give to students

B Listen again and write the correct information in the meeting notes.



Newsletter	Class Ecology Team	Posters
<i>give to students</i>		

C Pronunciation Listen to the words and look at the underlined syllables.



Notice that they sound louder and clearer. The loud syllable is the "stressed" syllable.

Example 1: sal-ad

Example 2: po-ta-to

Example 3: hur-ri-cane

D Listen to each sentence and underline the stressed syllable. Then practice saying each word aloud.



1. tor-na-do

4. de-grees

2. chick-en

5. light-ning

3. thun-der-storm

E Speaking Think about an ecology project you could do at your school. Write a few ideas in your notebook. Share them with your partner.

We could have an ecology poster contest.

Good idea!

F Writing Complete the newsletter with the sentences in the box.

- a. We can save electricity and water.
- b. Together, we will make a difference!
- c. Turn out the lights when no students are in the room.
- d. The future could be difficult.
- e. Tell a teacher if you see a water leak.



Conserve!

Every year, people use more electricity and more water. Scientists are making predictions about the future. In 2025, we will not have enough water for everyone. The petroleum we use to make electricity will become very expensive. (1) d

We can change this future. (2) _____

There are many small things we can do at home and at school:



Low-energy light bulbs save electricity.



Water leaks waste a lot of water.

Save Electricity

- (3) _____
- Turn off the computer when nobody is using it.
- Use low-energy light bulbs.

Save Water

- Turn off the water when you are washing your hands.
- (4) _____
- Use a broom instead of water to clean outside areas.

Share these ideas with your family and friends, too. (5) _____

G Write a newsletter. Give some ways to save water and electricity at your school.

- _____
- _____
- _____
- _____
- _____
- _____

GET CLOSE TO MEXICO

There are a lot of ways to help the environment. Name three ways in which you can help the environment in Mexico.

H Look at your partner's newsletter. Does he/she use **will + verb** correctly?

UFO CLOUDS!

A Connect with the Text Look at the picture and read the article.
Answer the questions.

1. What do these clouds look like? _____
2. What are these clouds called? _____

B Scan Scan the reading and find these numbers. What do they refer to?

1. 2015 _____
2. 2017 _____
3. 1,066 _____
4. 400 _____



1 In 2015 in Cape Town, South Africa, and in 2017 in Åre, Sweden, local residents started to share strange photos on social media. There were UFOs in the sky above their towns!

2 These UFO clouds are lenticular clouds. Lenticular is a Latin word that means something has the shape of a lens. A lenticular cloud is round like a lens.

3 After the photos went viral on social media in 2015, meteorologists explained that lenticular clouds form when strong, wet winds move over land with mountains and valleys. When the wet wind rises to go over mountains it cools and becomes a cloud. This process makes the round clouds form over the tops of mountains.

4 Cape Town is in a valley between mountains. One of them, Table Mountain, is very high. It is 1,066 meters tall (3,500ft). Åre is a Swedish ski resort. It is next to a lake in the mountains, 400 meters (1,300ft) above sea level. Both places have the geographical features that can cause lenticular clouds.

5 The clouds weren't UFOs but they were amazing!

resident, *n.* – a person who lives in a place
strange, *adj.* – not usual
UFO, *n.* – an unidentified flying object (an object in the sky that some people think is a spacecraft from another planet)

lens, *n.* – a piece of glass or plastic with a curved surface you look through (e.g. a camera lens, contact lens)

rise, *v.* – go up
resort, *n.* – a place where people go on vacation (e.g. ski resort, beach resort)

geographical feature, *n.*
phrase – mountains and valleys are geographical features

C Read in Depth Read the article again. Write the answers to the questions.

1. What is this article about?

2. What happened on social media? (paragraph 1)

3. Where do lenticular clouds form? (paragraph 3)

4. Why does the wind become clouds? (paragraph 3)

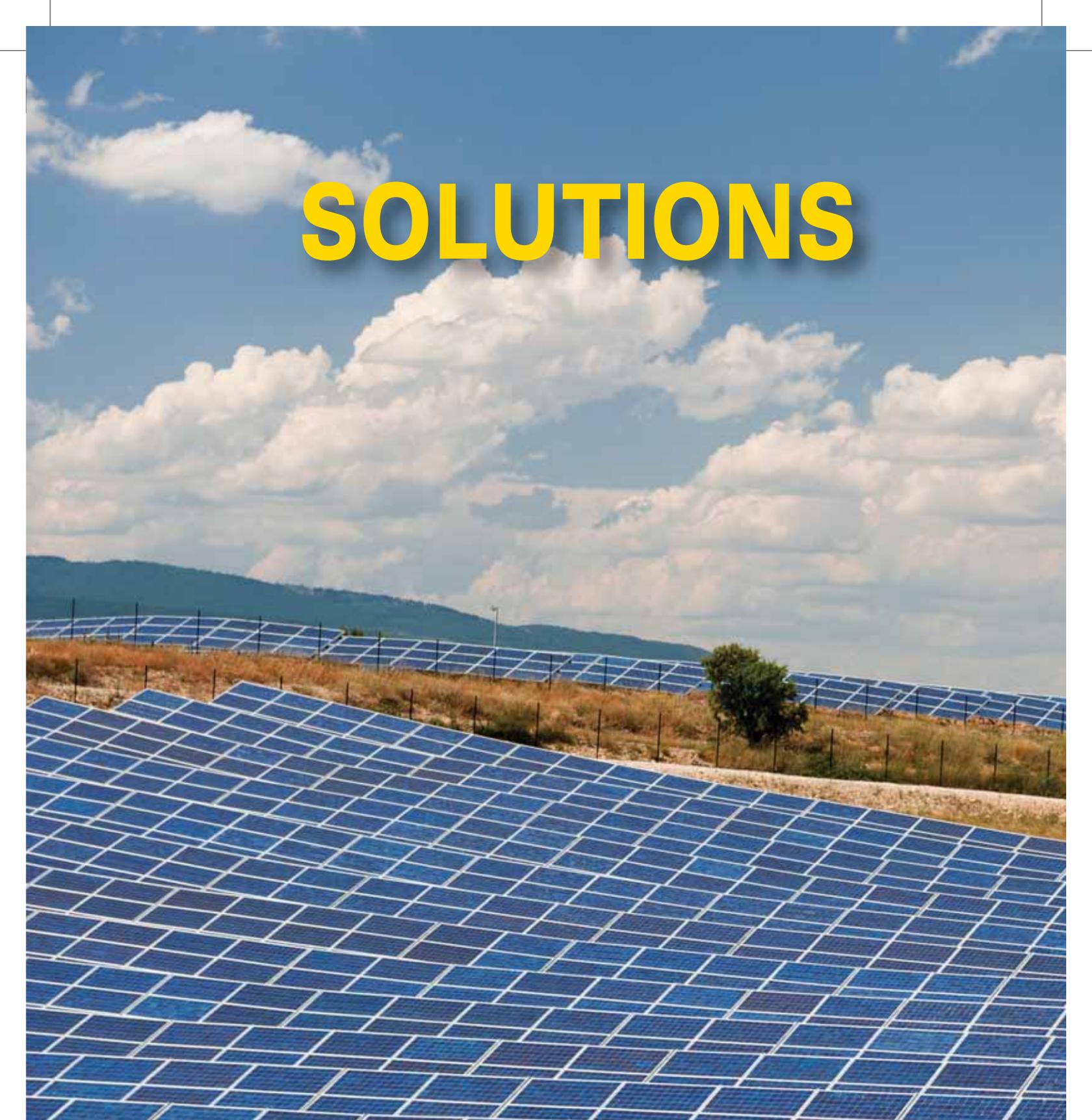
5. What do people do in Åre in the winter? (paragraph 4)

6. Circle the opinion you agree with.

a. Social media helps us learn interesting facts.

b. Social media doesn't help us learn interesting facts.

SOLUTIONS

A large field of solar panels stretches across a landscape under a bright blue sky with scattered white clouds. The panels are arranged in neat rows, and the terrain appears to be a mix of grass and dry vegetation. In the distance, there are rolling hills or mountains.

THEME

UNIT 1

16

2

Opening Activity

Look at the picture and answer the questions.

1. What do these objects do?
2. How do they work?
3. What problem are they solving?



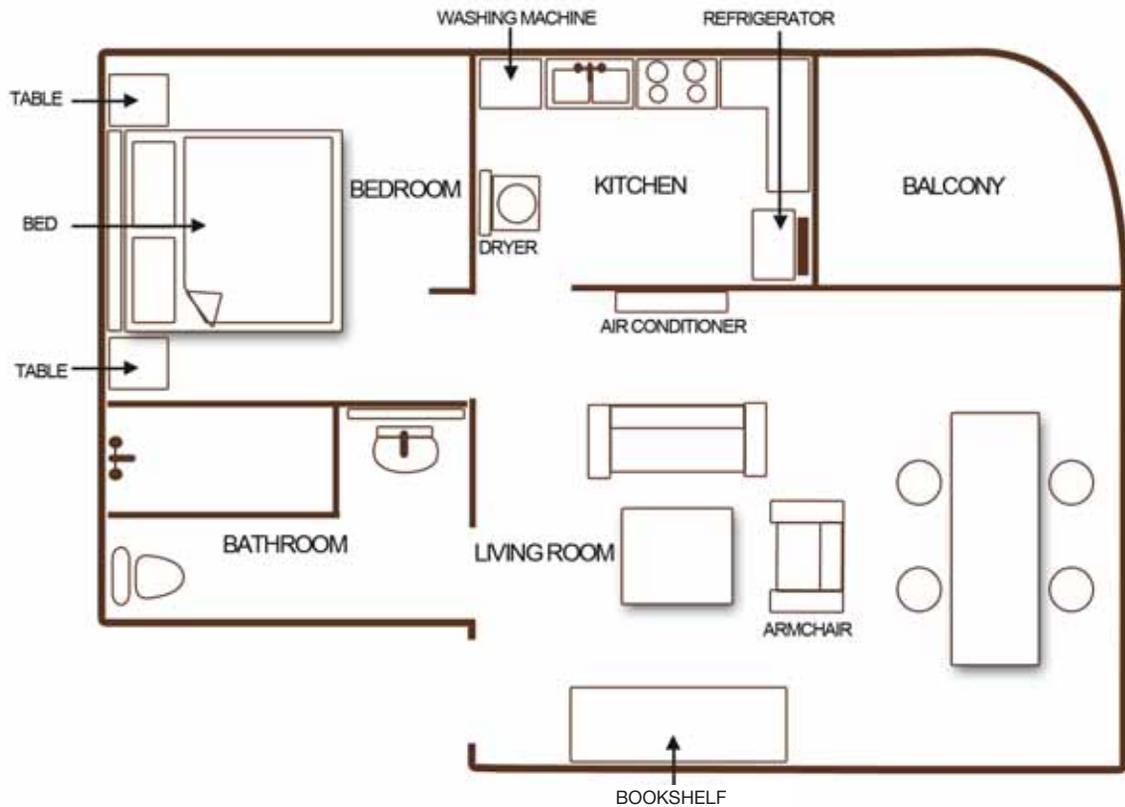
Theme Goals

In this theme, you will learn to:

- talk about parts of houses.
- talk about jobs.
- describe problems, plans and goals.
- ask for and give advice and opinions.
- use two-part verbs.
- use *should*, *could*, *must*, and *have to* for giving advice.
- use *going to* for future plans.

LESSON A My House / My Home / My Neighborhood

A Vocabulary in Context Look at the floor plan and read the words.



B Vocabulary in Action Listen to the conversation. Circle the correct word to complete the sentences.

1. The living room has a bookshelf / a table).
2. There is (an air conditioner / a refrigerator) in the living room.
3. The living room has (one armchair / two armchairs).
4. The kitchen has (a washing machine / a bookshelf).
5. The kitchen also has (an air conditioner / a dryer).
6. The bedroom has (a bed / two beds).

C Put each word into the correct category.

air conditioner dryer	armchair freezer	bed table	bookshelf washing machine
--------------------------	---------------------	--------------	------------------------------

Furniture	Appliances
<i>armchair</i>	

D Grammar in Context Study the chart.

Possessive pronouns

Personal pronouns		Possessives	
Subject	Object	Adjectives	Pronouns
I live in an apartment.	Two friends live with me .	It's my apartment.	The apartment is mine .
He	him .	his	his .
She has a dryer.	The dryer belongs to her .	It's her dryer.	The dryer is hers .
It	it .	its	
You	you .	your	yours .
We are on the balcony.	The neighbors are with us .	It's our balcony.	The balcony is ours .
They	them .	their	theirs .

E Grammar in Action Circle the correct word to complete each sentence.

- Where is (their / theirs) apartment?
- I found a notebook. Is it (your / yours)?
- Marta has two armchairs in (her / hers) living room.
- (My / Mine) mother and father live in Mérida.
- Which car is (our / ours)?
- Excuse me, that pen is (my / mine).

F Replace the underlined words with the correct possessive pronoun.

- This is your table and that is our table. ours
- Where are the kids' chairs? _____
- My apartment has no electricity right now, so I'm staying at his apartment. _____
- The cat has her own bed, but she likes his bed. _____
- Mona is fixing her kitchen. Her parents aren't fixing their kitchen. _____
- Our bedrooms are across from your bedrooms. _____

G Communicate Make a list in your notebook of the furniture and appliances you have in your house or apartment. Then compare your house with your partner's.



I have two beds in my bedroom.

I only have one bed in mine.

H Vocabulary in Context Read the article. Look at the words in dark type.

IT'S OUR NEIGHBORHOOD!

Neighborhood programs are helping people in Comunidad Mirasierra **get back** their town. Residents are working together to make their neighborhood cleaner, safer, and friendlier. Antonio Barroso Montes is a community organizer. He says: "In the past, I wasn't able to exercise because I was afraid to leave my apartment. Kids liked to **beat up** other kids in the street."

Neighbors are working together to create parks and play areas. Groups of teens **pick up** and **throw out** garbage like old washing machines and freezers. "We **get along**," says Marta Gómez Pardo. "It's cool to **look after** our town."

This is hard work, but many people are helping. "We won't **give up**," says Antonio Barroso Montes. "We are going to clean up Comunidad Mirasierra for everyone."

You can help your neighborhood, too. **Find out** more at www.myneighborhood.mx.



Neighbors can work together for a better town.

I Vocabulary in Action Write the words from the box next to the words that have the same meaning.

collect
discard
fight with
learn
like
recover
stop
take care of

1. get back
2. beat up
3. pick up
4. throw out
5. get along
6. look after
7. give up
8. find out

recover

J Communicate Choose three two-word verbs to talk about activities in your community.

We look after our park!

How do you look after it?

K Grammar in Context Study the chart.

Should for advice

Affirmative sentences	Negative sentences	Questions	Explanations
You should clean your bedroom.	You should not / shouldn't leave your clothes on the floor.	Should I throw away this comic book?	We use should + verb to ask for and give advice. Shouldn't is the contraction of should + not .
I You He She should go now. It We They	I You He She shouldn't stay . It We They	I you he Should she go now? it we they	Should + verb is always the same for all subjects.

L Grammar in Action Unscramble each sentence.

- should ice the put that in You freezer
You should put that ice in the freezer.
- balcony garbage leave He on shouldn't the
- meet I you at the Should park ?
- look We town should after our
- now not give They should up
- there go Should the children ?

M Give advice for the situations below using **should + verb**. Look at the cues.

- Our town is really dirty! (pick up, garbage)
We should pick up the garbage in the streets.
- I can't study in my apartment. (study, library)
- Juan needs to get more exercise. (run, park)
- Look! I have ice cream. (keep, freezer)
- Nina fights with her friends a lot. (get along, people)
- These clothes are wet. (put, dryer)

Public places

park
hospital
bank
library
mountain
ocean
forest

N Communicate In your notebook, write three things you should (or shouldn't) do to make your town or your state better. Use the list of public places.

We should get along with our neighbors.

Yes! We should clean up the park, too.

LESSON B PROBLEMS



exercise



homework



tired

A Vocabulary in Context Study the words in the columns.



friends



money



school

B Vocabulary in Action Listen to the conversation. What topics does Miguel include in his list of problems? Check the items that you hear.

- exercise
- friends
- homework
- money
- school
- shy
- sports
- tired



shy

C Circle the correct word to complete each sentence.

- I want to stay healthy! I need more (homework / exercise).
- Sara isn't comfortable with a lot of people. She is (shy / tired).
- Joaquín wants a new bicycle. He needs some (money / sports).
- We don't have a lot of (friends / money) because we are new here.
- You have three exams tomorrow? That's a lot of (sports / homework).
- Pepe isn't good at math—he's having problems with (school / exercise).



sports

D Grammar in Context Study the chart.

Could, have to, and must for advice

Examples	Explanations
You could study at the library. You could go there after school.	We use could + verb for advice that isn't strong and suggestions.
You have to finish this project tonight.	We use have to + verb for strong advice.
You must pass your exams to receive a diploma.	We use must + verb for very strong advice or commands.

E Grammar in Action What kind of advice is in each sentence below? Complete the sentences with **could, have to, or must**.

- You have to study or you won't pass the test tomorrow.
- You _____ be 18 years old to get a driver's license.
- You _____ ask your teacher or classmates for help.
- You _____ clean your bedroom before you go to the movies.
- You _____ have your parents' permission for this trip.
- You _____ join a club or play a sport.

F Give advice for each situation below. Use the verbs in parentheses. Think about what kind of advice each situation needs.

- My best friend is moving to another town! I'm going to be so lonely. (make, friends)
You could make new friends.
- I broke something at a store and now I feel really bad. (tell, someone)

- Help! There is a fire in our apartment. (leave, building)

- We can't understand our homework. (ask, teacher)

- I can't play football because I'm too thin. (eat, food)

- I want a new bicycle, but I don't have any money. (get, job)

G Communicate Write in your notebook three problems that you have. Ask your partner for advice.

My mom says I don't help enough at home.

You have to help more! You could help make dinner, or clean the kitchen.

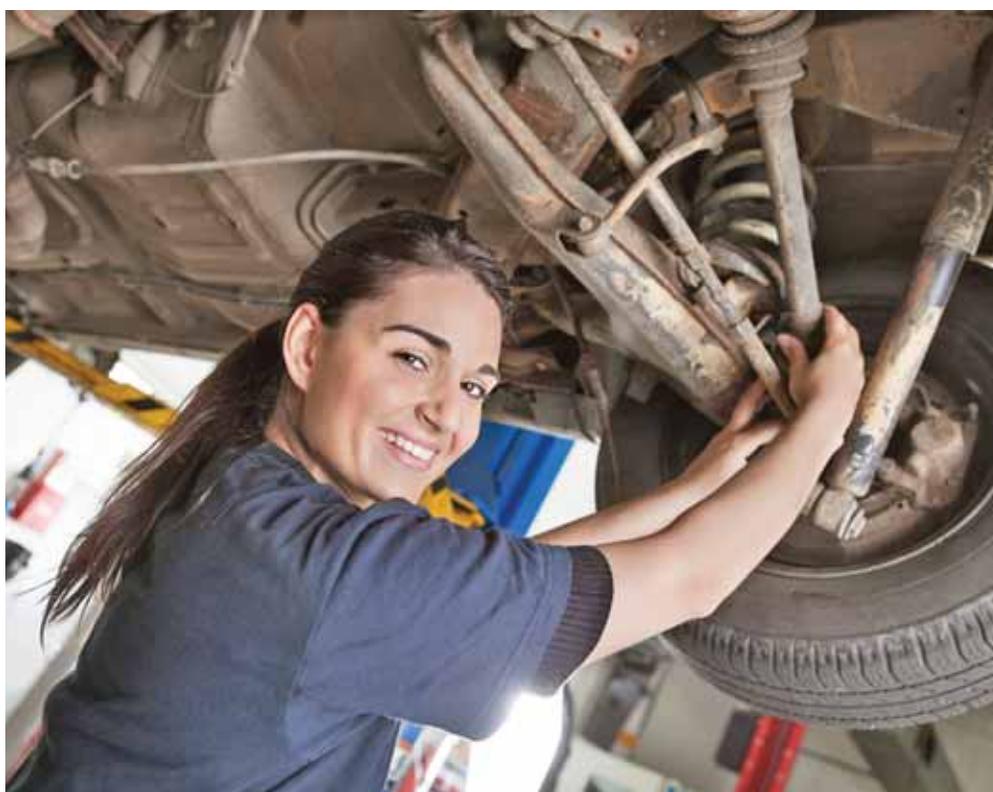
H Language Builder Study the chart.

Going to for future plans and predictions

Examples	Explanations
I am going to be a journalist. Are you going to be a secretary?	Use be going to + verb to talk about plans for the future.
That's a lot of food. He's not going to be able to eat it all!	Use be going to + verb to make predictions when there is strong evidence.

I Listening Listen to the conversation and answer the questions.

12



1. Who is talking? _____
2. What are they talking about? _____

J Listen to the conversation again. Write **prediction** or **plan** next to each sentence.

12

1. Ramón is going to build a car. plan
2. He's going to be a mechanic. _____
3. Ramón and Claudio are going to use old car parts. _____
4. The car isn't going to cost a lot of money. _____
5. Even poor families are going to have cars. _____
6. Ramón and Claudio are going to be famous! _____

Jobs of the Future

Research jobs that are going to be important in the future. Find out about problems that will exist in 10 years and learn about a job that is going to solve one of these problems. Create a presentation that explains this job.

A Brainstorm What do you want to know about jobs in the future? What do you want to know about the problems they are going to solve? Look at the job categories in the box and choose a job that interests you. In a small group, make a list of **Wh-** questions. Write them in the chart in **B**.

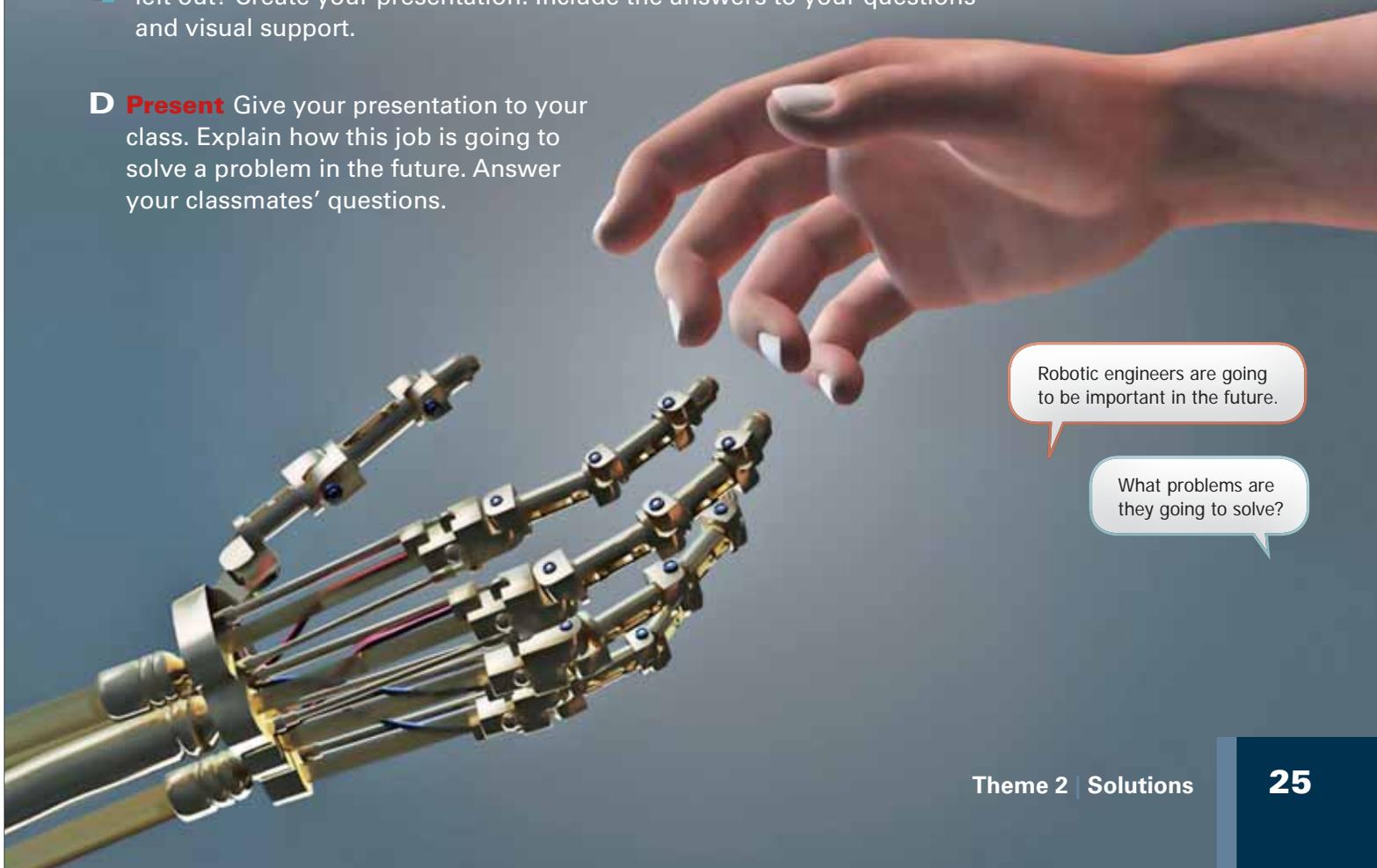
doctor engineer mechanic secretary medical assistant journalist

B Research Look at your questions. Use the Internet to find out more about jobs in the future. Write the answers in the chart. Also, look for pictures that show examples.

Questions	Answers

C Share Share your information with a partner. Is there any information you left out? Create your presentation. Include the answers to your questions and visual support.

D Present Give your presentation to your class. Explain how this job is going to solve a problem in the future. Answer your classmates' questions.



Robotic engineers are going to be important in the future.

What problems are they going to solve?

LESSON C JOBS OF THE FUTURE

A Listening in Context Listen to the conversation.

13

1. Where are the girls? _____
2. What are they talking about? _____

B Listen to the conversation again. Write the correct name or names next to each plan for the future.

13

1. have really interesting jobs Pilar and Ana
2. be a medical technician _____
3. work with children _____
4. be a journalist _____
5. not be a secretary _____
6. play in a rock band _____

C Pronunciation Listen to the words and look at the underlined letters.

14

- Example 1: skate escape
Example 2: state estate
Example 3: special especially

D Listen to the sentences and circle the word that you hear. Then practice saying each pair.

15

1. state estate
2. special especially
3. state estate
4. skate escape
5. steam esteem
6. sense essence

Use ***I think you should + verb*** to give an opinion.

E Speaking In your notebook, write three sentences about your future job. Use *be going to*. Share your ideas with a partner.

I'm going to be a software engineer.

I think you should work on biodiesel cars.

Cool! I'm going to be a mechanic.

That's a good idea. There are going to be more of them in the future.



F Writing Complete the e-mail with the sentences in the box. Write the letter of the correct sentence on the line.

- a. Who is going to design those robots?
- b. What job are you going to do in the future?
- c. We had a job fair at school this week.
- d. Also, computers and technology are going to be more important.
- e. There are going to be more old people.
- f. They're going to take trips for different reasons.

Hi Elisa,

(1) C The theme was, "What are the jobs of the future going to be?" It was really cool to find out more about jobs that can help society.

First, we heard about how health care is going to be more important in the future. (2) ____ They'll need home health aides to look after them.

(3) ____ There will be more robots to do difficult or dangerous jobs. (4) ____ Engineers will design them, and robotics technicians will maintain them.

Finally, we learned that people are going to travel to different places. (5) ____ There will be ecotourism specialists and space tour guides. It's going to be so cool!

(6) ____ Write back and tell me all about it!

Bye,
David

G Write an e-mail to a friend. Tell him or her about some jobs of the future.

GET CLOSE TO MEXICO

Every country has ongoing problems that need to be solved. What are some issues in Mexico that need solutions? Name two professions that work to solve problems in Mexico.

H Look at your partner's e-mail. Does he/she use **going to + verb** correctly for plans and predictions?

A DANGEROUS JOB: SMOKE JUMPERS



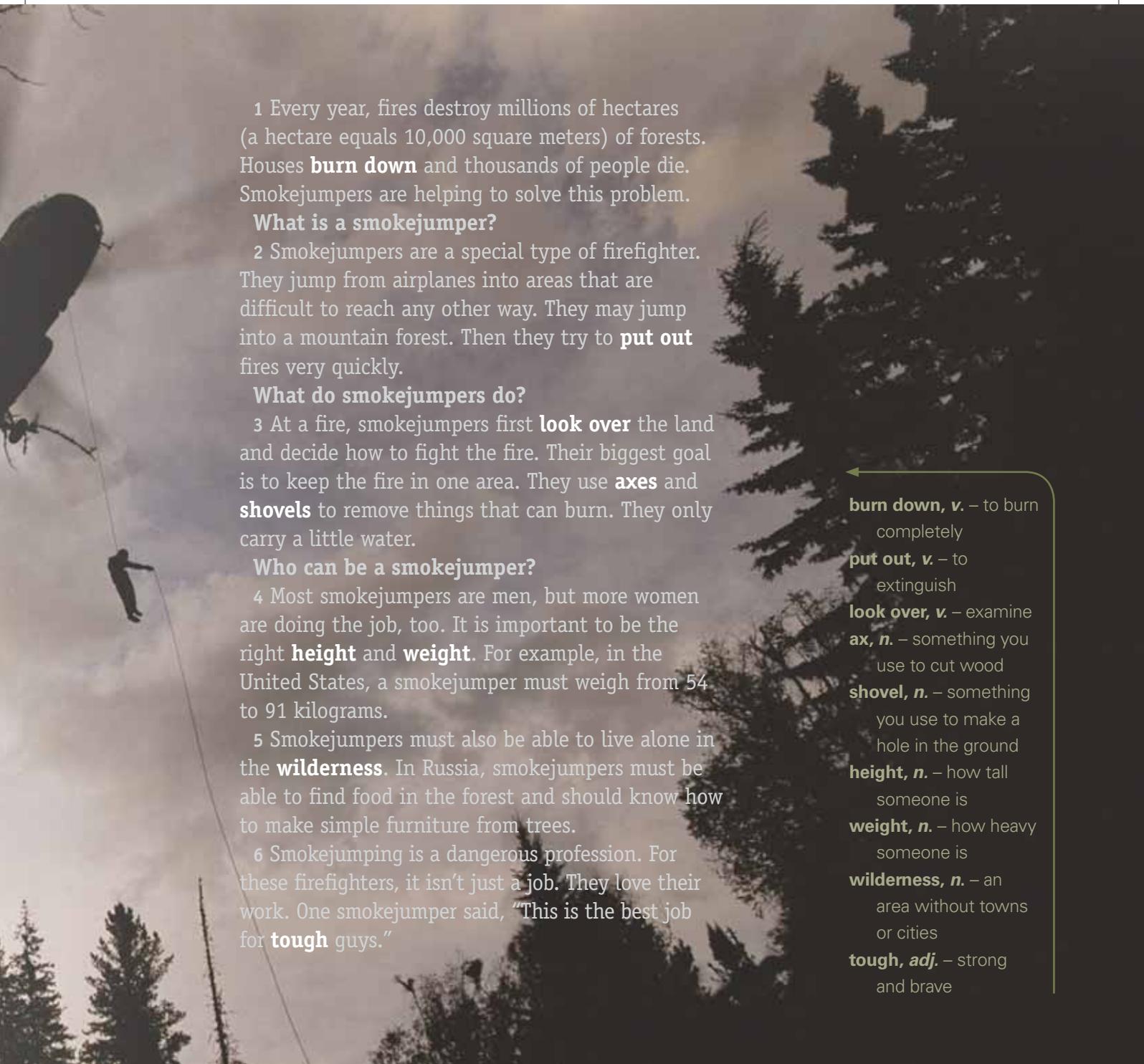
In Russia, there are between 20,000 and 35,000 forest fires every year.

A Connect with the Text Look at the pictures and read the captions. Then answer the questions.

1. What problem can you see? _____
2. What is the person in the picture doing? _____

B Scan What do these numbers represent? Scan the reading and write the answers. Then read again to check your answers.

1. 10,000 square meters _____
2. 54 to 91 kilograms _____



1 Every year, fires destroy millions of hectares (a hectare equals 10,000 square meters) of forests. Houses **burn down** and thousands of people die. Smokejumpers are helping to solve this problem.

What is a smokejumper?

2 Smokejumpers are a special type of firefighter. They jump from airplanes into areas that are difficult to reach any other way. They may jump into a mountain forest. Then they try to **put out** fires very quickly.

What do smokejumpers do?

3 At a fire, smokejumpers first **look over** the land and decide how to fight the fire. Their biggest goal is to keep the fire in one area. They use **axes** and **shovels** to remove things that can burn. They only carry a little water.

Who can be a smokejumper?

4 Most smokejumpers are men, but more women are doing the job, too. It is important to be the right **height** and **weight**. For example, in the United States, a smokejumper must weigh from 54 to 91 kilograms.

5 Smokejumpers must also be able to live alone in the **wilderness**. In Russia, smokejumpers must be able to find food in the forest and should know how to make simple furniture from trees.

6 Smokejumping is a dangerous profession. For these firefighters, it isn't just a job. They love their work. One smokejumper said, "This is the best job for **tough** guys."

burn down, v. – to burn completely

put out, v. – to extinguish

look over, v. – examine

ax, n. – something you use to cut wood

shovel, n. – something you use to make a hole in the ground

height, n. – how tall someone is

weight, n. – how heavy someone is

wilderness, n. – an area without towns or cities

tough, adj. – strong and brave

C Read in Depth Read the article. Write the answers to the questions.

1. What is the most important idea in this article?

2. What is the problem smokejumpers help solve?

3. How do smokejumpers get to forest fires?

4. What do smokejumpers carry with them?

5. Why do smokejumpers do this dangerous job?

6. Circle the sentence you agree with.

a. Smokejumping is a dangerous job. b. Smokejumping is an exciting job.

Mystery Lines



Discovered from an airplane in the 1920s, the Nazca Lines are one of the world's great mysteries.

In the **desert** of southern Peru, thousands of lines and images—including a spider (pictured), a monkey, and various other animals and plants—appear in the earth.

Who created these pictures, and why? Many of the images are more than 1,500 years old and are only visible from the air. Because of this, some people think they come from space. Today, we know that most of the images were in fact created by people known as the Nazca. The next question: why are they here?

A team of researchers in Nazca thinks they have an answer. “In this area, water was the **key issue**,” says research director Markus Reindel. This area of Peru is one of the driest areas in the world. The Nazca drank river water from the nearby Andes mountains. By making images for the mountain gods, the Nazca hoped for more rain each year.

Over time, however, the **climate** changed and the rivers ran dry. Sometime between a.d. 500 and 600, the last Nazca left the area.

Glossary

climate: the weather in a certain part of the world

desert: a dry, often sandy area of land with little rainfall

key issue: the main point or question

religious ceremony: a traditional event, or set of actions, relating to a god or gods

stage: the scene, or area, used for a certain purpose, e.g., a ceremony

HEALTH



THEME

UNIT 2

32

3

Opening Activity

Look at the picture and answer the questions.

1. What are these people doing?
2. How can you describe these people?
3. Do you think they are having fun? Why do you think so?



Theme Goals

In this theme, you will learn to:

- talk about health, illnesses, and injuries.
- talk about remedies and treatments.
- talk about extreme sports.
- talk about goals.
- give advice and make suggestions.
- use the past progressive.
- use the regular simple past.

LESSON A AT THE DOCTOR'S OFFICE

A Vocabulary in Context Look at the photos and read the health words.



sore throat



back pain



fever, flu



cold, cough



broken arm



headache

B Vocabulary in Action Listen to the conversations. Check the boxes in **A** for the illnesses and injuries you hear. Then listen again and check your answers.

C Complete each sentence with a word from the word box.

broken arm	sore throat	headache	cold
cough	fever	flu	back pain

- Javier and Angel played videogames for hours yesterday! Now they both have back pain.
- I feel really hot! I think I have a _____.
- Marina can't sing in the concert tonight because she has a _____.
- Jorge fell off his skateboard and now he has a _____.
- I have a _____. Do you have any aspirin?
- When you have the _____ your whole body hurts.

For back, neck, or shoulder pain we also say: *I have a pain in my back. My back hurts.*

D Grammar in Context Study the chart.

Regular simple past

Examples	Explanations
I called the doctor yesterday.	We form the past tense by adding -ed to the base form of regular verbs.
Did you worry about me?	We form questions in the past tense with did + subject + the base form of the verb.
He didn't play soccer yesterday because he was sick.	We form negative sentences in the past tense with did not + the base form of the verb. <i>Didn't</i> is the contraction for <i>did not</i> .

E Grammar in Action Unscramble each sentence.

- about asked the Irene doctor headaches her

Irene asked the doctor about her headaches.
- hospital Did Martín visit at you the ?

- cover mouth they boys didn't coughed The their when

- his José María leg injured

- need Did cast he a ?

- clinic We did at stay not the

Spelling rules for the simple past

Verbs that end in **-e**, add only **-d**.

Verbs that end in a vowel + a consonant, double the consonant and add **-ed**.

Verbs that end in a consonant + **-y**, change the **-y** to **-i** and add **-ed**.

F Complete each sentence with the past tense form of the verb in parentheses. Pay attention to spelling.

- Virginia _____ *injured* _____ a bone in her hand. (injure)
- A doctor _____ to save the old man's life. (try)
- I fell off my bike and a woman _____ me. (help)
- The ambulance _____ in front of the house. (stop)
- A nurse _____ with the patient for an hour. (stay)
- The pharmacist _____ this medicine. (recommend)

G Communicate In your notebook, write three sentences about a time when you were ill or had an injury. Use regular past tense verbs. Then tell your partner about what happened to you.



H Vocabulary in Context Read the article and look at the pictures.

What to Expect at the Doctor's Office

If you're ill or injured, you will probably go to the doctor's office or the hospital. What happens next depends on your health issue.



Broken Bones A broken bone usually needs an x-ray. You will probably wear a **cast** for about six weeks. For a broken leg or foot, you could also use **crutches**. You will need to get a lot of rest, too.



Infection The doctor could give you a **shot** (an injection) or a **prescription** for some **medicine**. You will probably have **pills** (tablets) or a liquid. Be sure to take the medicine for the whole time the doctor recommends.



Serious Illness or Injury When you are very ill or have a serious illness, you might go to the hospital in an **ambulance**. You may have an **operation** and need to stay in the hospital for a few days. Don't worry! The doctors and nurses will take good care of you.

I Vocabulary in Action Write the correct word under each picture.



1. *operation*



2.



3.



4.



5.



6.

ambulance
cast
crutches
medicine
operation
pills
prescription
shot

J Complete each sentence with a word from the box in **I**.

- When my grandmother was sick, an *ambulance* took her to the hospital.
- Arturo has appendicitis. He's going to have an _____ tomorrow.
- Carla broke her arm and now she is wearing a _____.
- The doctor gave Paty a _____ for her allergies.
- I have to take these _____ for two weeks.
- Quique can't walk very fast on his _____.

K Grammar in Context Study the chart.

Giving advice: Gerunds, base forms, and infinitives

Examples	Explanations
Polite Advice Tere: I have a very sore throat! Juan: How about drinking / have you thought of drinking some hot tea? Tere: I don't really like tea.	Make questions with <i>How about</i> and <i>Have you thought of</i> + gerund to give polite advice.
Pablo: I'm getting a headache. Amanda: Why don't you lie down for a while?	Also make questions with <i>Why don't you</i> + base form of the verb to give polite advice.
Neutral Advice The doctor advised her to drink lots of liquids.	Use <i>advise</i> + object pronoun + infinitive to give neutral advice.
Strong Advice You had better not walk on your broken leg. You'd better get some rest.	We use <i>had better (not)</i> + base form to give strong advice. <i>You'd better</i> is the contraction of <i>You had better</i> .

L Grammar in Action Complete each sentence with the correct form of the verb in parentheses.

- You look tired. Why don't you go to bed? (go)
- His sister's a nurse. She advised him _____ more Vitamin C. (get)
- You have a cold. You'd better _____ some chicken soup. (eat)
- Have you thought of _____ acupuncture for your headaches? (do)
- You'd better _____ a doctor about your sore throat. (see)
- You have a pain in your back? Why don't you _____ a hot shower? (take)

M Look at each picture and match the correct advice for the situation.

- Why don't you have some hot tea?
- The doctor advised me to take these tablets.
- Why don't you get some rest?
- You'd better go to the hospital!
- I advise you not to walk too much.
- Have you thought about seeing a doctor for your neck pain?



N Communicate In your notebook, write three health problems. Talk to your partner and give him/her advice for his/her health problems.

I don't feel well. I have a bad cough.

Why don't you take some cough medicine?

LESSON B I MIGHT FEEL BETTER

A Vocabulary in Context Look at the pictures and read the words.



surfing



scuba diving



caving



base jumping

B Vocabulary in Action Listen to the conversation. What were the people doing? Circle the words that you hear in the sentences.

1. Carlos was (waterskiing) / hang gliding) when he broke his leg.
2. Sara broke her arm when she was (caving / mountain biking).
3. Julián and Sara were (surfing / climbing) when he fell.
4. Carlos and Julián got lost when they were (base jumping / scuba diving).
5. They weren't (diving / surfing) far from shore, but they couldn't find the boat.



waterskiing

C Put the words from **A** into the correct categories in the chart below.

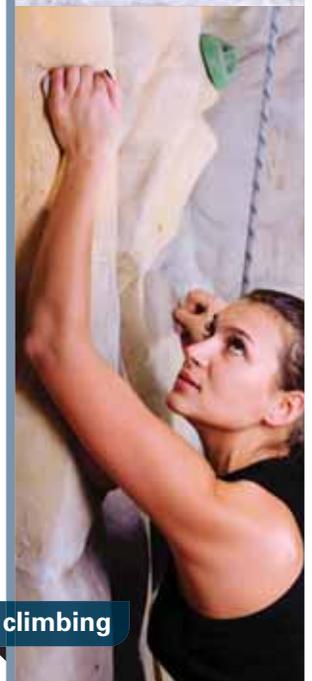
Air	Ground	Water
<i>base jumping</i>		



mountain biking



hang gliding



climbing

D Grammar in Context Study the chart.

Past progressive

Examples	Explanations
She was riding her mountain bike all day.	We form the past progressive with was or were + the -ing form of the verb.
We were diving when the accident happened .	We use the past progressive to talk about an action that was happening when something else occurred.

E Grammar in Action Complete each sentence with the past progressive form of the verb in parentheses. Notice if the verb is affirmative or negative.

- My brother and I were moving the table when I dropped it on my foot. (move)
- Lorenzo _____ anything heavy when he injured his shoulder. (not, carry)
- Anita and Lola _____ to catch the bus when Lola tripped and fell. (run)
- The boys _____ with matches when they burned themselves. (play)
- Mr. Rubio _____ home in the rain when the accident happened. (drive)
- Marcos and I _____ very fast when we collided. (not, skate)

F Which action happened first? Rewrite the sentences using the past progressive and the simple past.

- Santos got a black eye. The boys played soccer.
The boys were playing soccer when Santos got a black eye.
- My sister caught a cold. We visited my cousins.

- Lucía ran on the wet floor. She slipped.

- I tripped on the rug. I didn't pay attention.

- The bus moved very fast. It hit the man.

- She hurt her finger. She closed the door.

G Communicate In your notebook, write about a time when something you didn't expect happened. Tell a partner about it.

I was surfing when I saw a dolphin.

Cool! What happened?



H Language Builder Study the chart.

Could, might, may, can't and must for belief

Examples	Explanations
The baby is crying. She could have an earache or it might be a fever. It may not be serious, but I want to call the doctor.	We use could / might (not) / may (not) + verb to talk about something we are not sure about (a possibility).
Manolo can't be sick again! He had a cold two weeks ago.	We use cannot (can't) + verb to talk about something we feel certain is not true or we can't believe is true.
Marta is in school again. She must feel better. I don't see Ignacio. He must not be home from the hospital.	We use must (not) + verb to talk about something we feel very certain about (a logical conclusion).

I Listening Listen to the conversation and answer the questions.



18

1. Where are the people?

2. What is their relationship?

J Listen to the conversation again and circle the correct word to complete each sentence.



18

1. Luisa (could / can't) have a cold.
2. It (must not / must) be a bad cold.
3. She (might / must not) miss school tomorrow.
4. The test (may / can't) be too hard.
5. Mrs. Domínguez thinks Luisa and Vanessa (must / could) be good friends.
6. Vanessa says Luisa (might / can't) be her best friend.



Diet and Health Report

Research the relationship between diet and health. Find out how the food we eat can make us healthy or unhealthy. Write a report that explains the problem and makes suggestions about how to eat better.

A Brainstorm What do you want to know about diet and health? What do you want to know about how food affects us? Look at the words in the box. In a small group, make a list of questions. Write them in the chart in **B**.

calories
diet
health
nutrition
obesity
vitamins

B Research Look at your questions. Use the Internet to find out about diet and health. Write the answers in the chart or your notebook.

Questions	Answers
What	
When	
Where	
How often	
Why	

C Share Share your information with a partner. Is there any information you left out? Write your report.

D Present Tell your classmates about diet and health. Make some suggestions about how to eat better. Answer your classmates' questions.



It isn't healthy to eat a lot of candy.

What should we eat instead?

LESSON C EXERCISING AND EATING

A Listening in Context Listen to the conversation.



How does Ricardo feel about Pedro's goals? How do you know?



B Listen again and write the correct information in the chart.



take care of yourself	talk to your doctor
exercise five times a week	lose 8 kilos
start slowly	start playing basketball next month

Pedro's goals	Ricardo's advice
<i>lose 8 kilos</i>	

C Pronunciation Listen to each word and notice the sound made by the underlined letters.



Example 1: helped /t/

Example 2: saved /d/

Example 3: decided /id/

D Listen to each verb and circle the sound that you hear. Then practice saying each verb.



1. dropped (t) /d/ /id/

2. cleaned /t/ /d/ /id/

3. started /t/ /d/ /id/

4. fixed /t/ /d/ /id/

5. waited /t/ /d/ /id/

6. worrid /t/ /d/ /id/

E Speaking In your notebook, write three goals to get healthier. Share them with your partner. Give your partner advice about his/her goals.

I want to run a marathon.

F Writing Complete the webpage with the sentences in the box.

What about running a 5K first?

- a. Don't forget the food you eat between meals.
- b. Think outside of gym class, too.
- c. Why don't you add just 30 minutes of exercise to your day?
- d. The second step is setting your goals.
- e. Remember, small changes are easier than big ones.
- f. Which number is higher?

Do you want to change your eating and exercise habits? The first step to getting healthy is to think about what you're doing now. (1) d



Make a list of all the exercise you do. (2) _____ Do you walk or ride your bike to school? Do you help clean the house? Any time you're moving, you're exercising.



We advise you to keep a food journal for one week. (3) _____ At the end of the week, count how many times you drank soda or ate sweets or salty snacks. Count how many times you ate fruit and vegetables. (4) _____

If you want to change anything, start slowly. (5) _____ Choose something you really like to do. How about replacing one "junk food" with a healthy food, like yogurt or a banana? (6) _____

What are you waiting for? Make this year your healthiest year ever!

G Write a webpage. Give advice on how to set goals and get healthier.

Get Close to Mexico

People everywhere worry about their health. What are some ways in which people in Mexico can be healthier?

H Look at your partner's newsletter. Does he/she give advice correctly?



Super Foods



FROM MEXICO TO THE WORLD

A Connect with the Text Look at the pictures and the section heads. Answer the questions.

1. What kind of foods is this article about? _____
2. Where are these foods from? _____

B Scan Scan the reading and write the answers to the questions below. Then read again to check your answers.

1. When did people take tomatoes to Europe? _____
2. How long have people eaten avocados? _____

C Read in Depth Read the article. Write the answer to each question.

1. What is the most important idea in this article?

2. How did people first consume chocolate?

3. Where do people eat a lot of tomatoes?

4. What chemicals do tomatoes have?

5. What do some scientists believe about avocados?

6. Circle the sentence you agree with.
a. It's healthy to eat fruit and vegetables. b. It's healthy to take vitamin pills.



- bitter, adj.** – not sweet
- heart, n.** – an organ that moves blood through the body
- cuisine, n.** – the cooking or food of a certain country or region
- blindness, n.** – the inability to see
- BCE, n.** – Before Common Era; pre-modern history
- tasty, adj.** – delicious

1 Some of the world’s favorite foods are from Mexico. The names of these foods were originally Nahuatl names, and people have grown these foods for thousands of years.

2 In recent years, scientists have studied their health benefits. Not only are these foods delicious, they can prevent many illnesses. Let’s look at three of them.

3 Ancient Mesoamericans drank chocolate mixed with chilies—it was spicy and **bitter**. Today, chocolate is one of the most popular sweets, but did you know that chocolate is good for your **heart**? It can also make you happier. To get the biggest health benefit, eat dark chocolate. It contains more healthy chemicals than milk chocolate.

4 It isn’t certain who brought tomatoes from Mexico to Europe in the early 1500s, but it’s impossible to think of Spanish or Italian **cuisine** without them. Tomatoes have Vitamin C and another chemical called lycopene. Vitamin C fights infections. Lycopene can help prevent heart disease, some cancers, and **blindness**.

5 Avocados originated in Puebla and there is evidence that humans were eating them in 10,000 **BCE**. Some scientists believe avocados are the world’s most nutritious food. They contain healthy fats, potassium, and Vitamin B. Eating avocados can reduce cholesterol and may help fight high blood pressure, diabetes, and some kinds of cancer.

6 The next time you eat one of these super foods, remember that they are **tasty** and healthy!



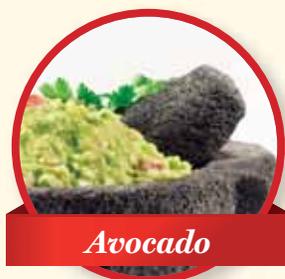
Chocolate

In Nahuatl, chocolate means “bitter water.”



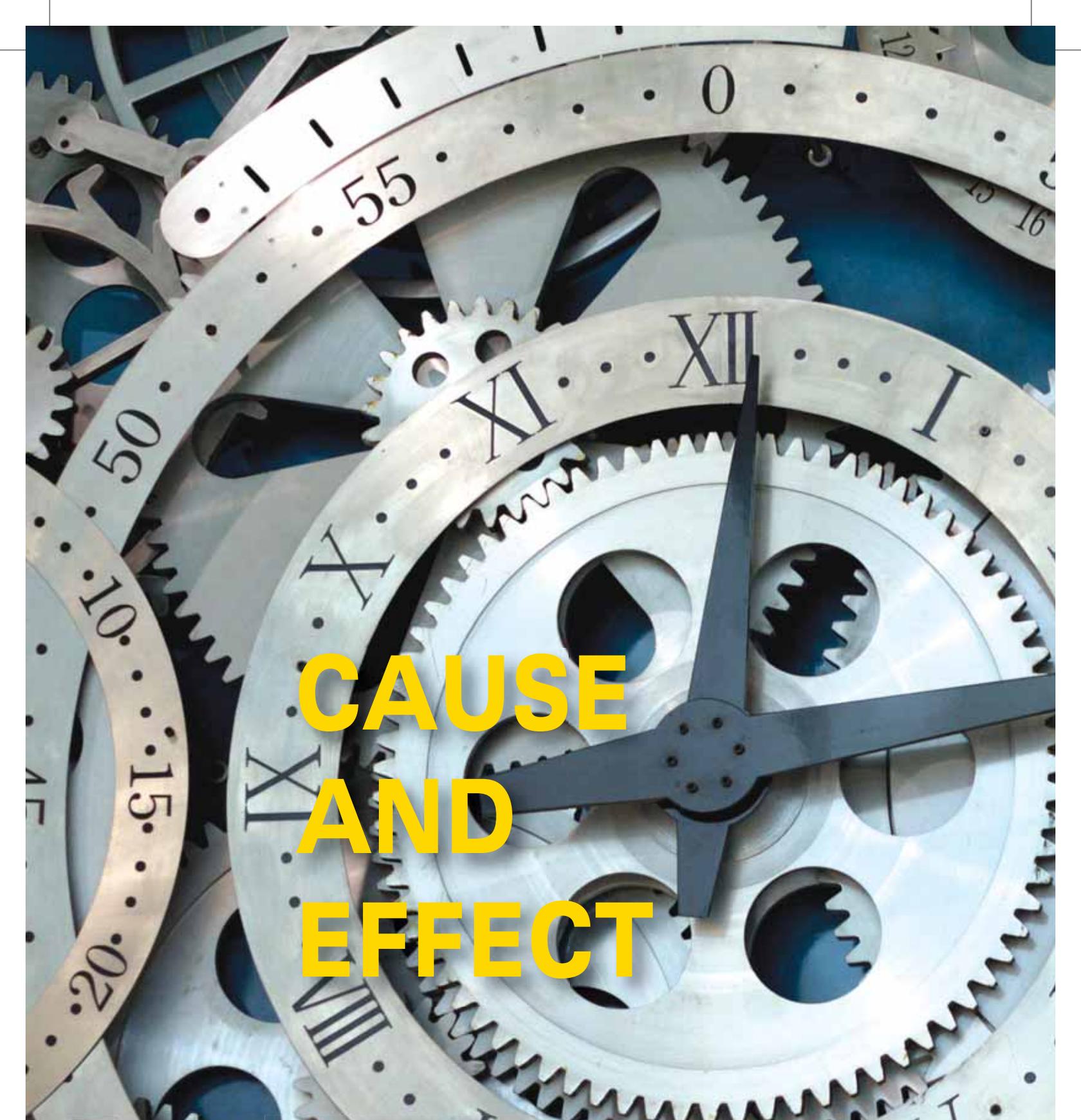
Tomato

Tomatoes went from Mexico around the world.



Avocado

People in Puebla have eaten avocados for thousands of years.



CAUSE AND EFFECT

THEME

UNIT 2

46

4

Opening Activity

Look at the picture and answer the questions.

1. What does this machine do?
2. How can you describe this machine?
3. Do you think it works well? Why do you think so?



Theme Goals

In this theme, you will learn to:

- talk about actions and processes.
- talk about places of interest.
- talk about emergencies, abilities, and money.
- talk about discoveries and achievements.
- use *be able to* in present, past, and future tenses.
- use the irregular simple past and present perfect tenses.
- use the first conditional.

LESSON A How Does It Work?

A Vocabulary in Context Look at the pictures and read the words.



temple



palace



statue



ruins



tomb



museum



B Vocabulary in Action Listen to the conversation. Number the words in **A** in the order that you hear them.

C Match each word to its definition.

- c 1. temple
- 2. museum
- 3. palace
- 4. ruins
- 5. statue
- 6. tomb

- a. a three-dimensional work of art of a person or animal
- b. a place where a dead body is put to rest
- c. a building for religious ceremonies
- d. what remains of an old building
- e. a building where valuable objects are kept
- f. the home of a king or queen

D Grammar in Context Study the chart.

Irregular simple past tense

Examples	Explanations
Spanish explorers found the ruins in the 16 th century.	Many verbs are irregular (<i>go, do, have</i> , for example). They do not take <i>-ed</i> .
It was a successful city until 800 AD. The explorers were surprised by their discovery.	<i>To be</i> is irregular. It has two forms in the simple past: was and were .
The city had many temples. The residents built houses near the temples.	To learn irregular past forms, you need to memorize them.
Did they take the treasure with them? How did they know the city was there? They didn't find the treasure they wanted. She didn't know where to look.	These rules apply to regular and irregular verbs in the past tense: <ul style="list-style-type: none"> • Make questions in the past tense with did + subject + base form. • Make negatives in the past tense with did + not + base form (except <i>to be</i>).

E Grammar in Action Write the correct past tense from the box next to its base form.

became brought found kept lost sold	1. lose	_____ <i>lost</i>
	2. sell	_____
	3. bring	_____
	4. keep	_____
	5. find	_____
	6. become	_____



F Make each sentence below into a question. Use the **Wh-** words in parentheses.

- Europeans began to explore Palenque around 1560. (when)

When did Europeans begin to explore Palenque?
- The Maya built the Palace with stone. (what)

- Alberto Ruz Lhuillier found a lot of treasure in the tomb of Pakal the Great. (where)

- The Mexican Government put objects from Palenque in museums. (who)

- Many objects are behind glass to protect them. (why)

- We saw the ruins in Palenque on our spring vacation. (when)

G Communicate Imagine you were a student volunteer at an archaeological site. Write two or three sentences about what you did there. Tell your partner.

I looked in the ruins and I found a clay statue.

That's amazing!

H Vocabulary in Context Read the article and look at the pictures.

How do inventors **develop** their ideas? Maybe they are able to see things in a different way. Here are two young inventors who wanted to **protect** other people. Look at what they **achieved!**



Theresa Oei's water filter uses sea shells

Humans and animals need clean water. In developing countries, contaminated water is a big problem. Theresa Oei wanted to help, so she **built** a water filter that uses broken seashells to get lead out of water. Tests prove that Theresa's filter is able to **remove** 100% of lead.



Tharon Trujillo invented a gate to protect his baby sister

Tharon Trujillo's little sister was trying to run through a door when she hurt herself. Tharon was worried, so he **designed** a device to protect her. His invention **locks** the door and is able to **keep** babies and animals safely inside.

I Vocabulary in Action Unscramble the words and write them out.

- | | |
|---------------------------------------|------------------|
| 1. dpleove _____ <i>develop</i> _____ | 5. pkee _____ |
| 2. vomeer _____ | 6. veahcie _____ |
| 3. trcept _____ | 7. ublid _____ |
| 4. sendig _____ | 8. colk _____ |

J Complete each sentence with the correct tense of a verb from the box. You won't need all the words.

achieve
build
design
develop
keep
lock
protect
remove

1. If the batteries in the radio don't work, remove them.
2. When Rodrigo was 15, he _____ a computer out of old parts.
3. It's important to _____ your eyes when you are using chemicals.
4. Marcela _____ a lot last year. She won three science prizes.
5. When the car door closes, it _____ automatically.
6. He _____ his device over more than 25 years.

K Grammar in Context Study the chart.

Be able to

Examples

I **am able to see** an image.
What **is** that computer **able to do**?
We **are able to calculate** large numbers with it.

She **was able to connect** the device.
They **were able to find** a solution.

Will he **be able to walk** again?
Yes, he **will be able to walk** again. / No, he **won't be able to walk** again.

Explanations

Use **am/is/are able to + verb** to talk about ability in the present.

Use **was/were able to + verb** to talk about ability in the past.

Use **will + be + able to + verb** to talk about ability in the future.

L Grammar in Action Complete each sentence with the correct form of **be able to**.

- Scientists believe someday we will be able to live on the moon.
- I looked through the microscope and I _____ see the cells moving.
- Daniel says he's sorry, but he _____ help us with our invention right now.
- By 2025, computers _____ do many more things than they can today.
- Chimpanzees _____ make and use simple tools.
- In 1972, researchers _____ synthesize DNA in a laboratory.

M Write sentences using **be able to + verb**. Use the cues below.

- washing machine / clean / clothes (present)
A washing machine is able to clean clothes.
- Spanish explorers / discover / Palenque (past)

- personal spaceships / fly / Mars (future)

- GPS / find / location (present)

- Henry Ford / invent / car (past)

- computers / solve / complex equations (present)

N Communicate In your notebook, write three sentences about your abilities using **be able to + verb**. Write one sentence about the present, one about the past, and one about the future. Then tell your partner about your abilities.

I was able to fix my bike without any help.

How did you learn to do that?



LESSON B MONEY VS HEALTH

A Vocabulary in Context Look at the pictures and read the words.



borrow



buy



charge



cost



earn



save



sell



spend

B Listen to the conversation. Check the verbs that you hear in the chart in **A**.

23

C Complete each sentence with the correct form of a verb from **A**. You won't need all the verbs.

1. I don't have enough money to buy a new bike.
2. How much money does Guillermo _____ at his new job?
3. Lola wants to visit Los Angeles, so she _____ a little money each week.
4. Don't _____ money from a friend—you'll be sorry!
5. Arturo _____ too much on videogames and comics.
6. Carmen doesn't play her guitar anymore, so she plans to _____ it.

D Grammar in Context Study the chart.

Present perfect

Examples

My grandfather **has won** the lottery three times!
I **have not spent** any money today.

Has she ever **borrowed** money from you?

I **have saved** \$20 a week **for** three years.
He **has been** a millionaire **since** he found oil on his farm.

Explanations

Make the present perfect with **have** or **has** + **the past participle** of the verb.
Use the present perfect to talk about an action that began in the past and continues into the present.

Make questions in the present perfect by moving **have** or **has** in front of the subject.

Use **for** and **since** with the present perfect to say how long something has been happening.
Use **for** with amounts of time and **since** with specific moments.

Irregular past participles

buy	bought
win	won
spend	spent
sell	sold
cost	cost

E Grammar in Action Complete each sentence with the present perfect form of the verb in parentheses.

1. He _____ his business since 1995. (own)
2. We _____ a lot of comic books this week. (buy)
3. _____ you ever _____ any money? (win)
4. Greta _____ almost three thousand pesos. (save)
5. _____ they _____ for the movie tickets? (pay)
6. Toñí _____ money from us before. (borrow)

F Circle **for** or **since** to complete each sentence.

1. Carla has earned a lot of money (for / since) she started working.
2. I have bought my own clothes (for / since) two years.
3. They haven't spent a single peso (for / since) last week.
4. Has Antonio borrowed anything (for / since) the last time?
5. Enrique hasn't saved any money (for / since) years.
6. We have sold newspapers after school (for / since) we were little kids.

G Communicate Is there anything that you're saving for? In your notebook, write about what you want and how long you've wanted it. Tell a partner about it.

I've wanted a scooter for two years.

How much money have you saved?



H Language Builder Study the chart.

First conditional	
Examples	Explanations
If there is an earthquake, we will use our emergency kit.	We form the first conditional with an if clause in the present tense, and a result clause in the future tense (will).
The children won't have school if there is a hurricane.	The if clause can go at the beginning or the end of the sentence.
If you get lost, we will look for you.	We use the first conditional to talk about future possibilities .
If you don't clean up , I'll tell Mom. (threat) We'll take your dog if you go to an emergency shelter. (offer)	We also use the first conditional to make threats, offers, and suggestions .
If you have canned food in your emergency kit, you'll need a can-opener. (suggestion)	

I Listening Listen to the conversation and answer the questions.



- How old are the people who are talking?
- What are they doing?

J Listen to the conversation again. Match the **if** clauses and the result clauses.



- | | |
|---|------------------------------------|
| <u> d </u> 1. If there isn't any electricity, | a. if we forget the can opener. |
| ___ 2. We'll be able to help people | b. we'll be able to eat and drink. |
| ___ 3. If we have water and canned food, | c. if there's no electricity. |
| ___ 4. We won't be able to open the food | d. we'll be able to see. |
| ___ 5. If we need to signal for help, | e. if they're injured. |
| ___ 6. We'll be able to listen to the radio | f. we'll blow the whistle. |

Emergency items



Stress

A Before You Watch Do you know these words? Look at the pictures and read the words.



measure



pressure



stress

B While You Watch As you watch the video, listen for these words. Circle the words you hear.

check dig effect produce researchers sell

C After You Watch Check your understanding. Complete the paragraph with the correct form of the vocabulary in **A** and **B**. You won't need all of the words.



The human body feels two kinds of (1) _____. It can be physical or mental. When the body is stressed, it (2) _____ hormones. They give the body extra (3) _____—this is a positive (4) _____. But if a person feels too much stress, it can be negative. (5) _____ are studying stress. They (6) _____ stress hormones in the body and look for changes.

If you feel a lot of stress, there are many ways to reduce it. And remember that sometimes stress can be good for you!

D Communicate Talk with a partner about ways to reduce mental stress.

I like to listen to quiet music when I feel stressed.

I do, too. Or sometimes I go running.

LESSON C NEWS AND ANCIENT CAPITALS

A Listening in Context Listen to the conversation.

25

1. Who is the speaker talking to?

2. What is she talking about?

B Listen again and match each sentence with a photo.

25

- a. Electric company workers were able to restore power.
- b. Rescuers were able to save 20 children.
- c. The driver was able to escape.
- d. Residents were able to return to their homes.
- e. Firefighters were able to put out the fire.
- f. Several people were able to call for help.



b



C Pronunciation Listen to each group of words and look at the underlined letters. Notice the different ways to spell each vowel sound.

26

Example 1: hero seem pieace /E/

Example 2: pain break away /A/

Example 3: find fly buy /I/

D Listen to the words and write the vowel sound (A, E, I, O, or U) that you hear. Then practice saying each word.

27

- | | | | |
|---------|--------|----------|-------|
| 1. owe | though | location | _____ |
| 2. few | menu | beauty | _____ |
| 3. be | peace | key | _____ |
| 4. able | they | play | _____ |
| 5. die | cry | height | _____ |

Inventors Who Changed the World

Research an inventor who made a difference in how we live today. Explain how the invention has affected our lives. Create a presentation that shows the reasons for the invention and its effect.

A Brainstorm What do you want to know about the inventor's life? What do you want to know about his or her ideas? Look at the words in the box. (You won't need all of them.) In a small group, make a list of **Wh-** questions. Write them in the chart in **B**.

inspiration model patent situation testing

B Research Look at your questions. Use the Internet to find out about the inventor and his or her invention. Write the answers in the chart. Try to find pictures or diagrams of the invention, too.

Questions	Answers

C Share Share your information with a partner. Is there any information you left out? Write your presentation.

D Present Tell your classmates about the inventor and his or her invention. Show them how the invention works. Explain how it changed the way we live today. Answer your classmates' questions.

Victor Celorio invented the "Instabook Maker."

How does it work?



A CAMERA AS A PASSPORT



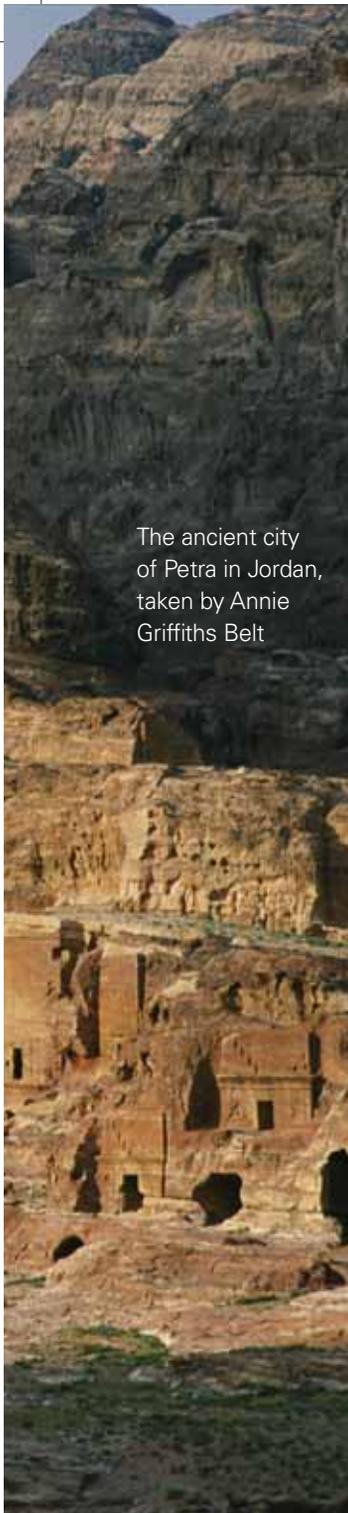
Annie Griffiths Belt, National Geographic photographer

A Connect with the Text Look at the pictures and the section heads. Answer the questions.

1. What is this person's job? _____
2. Where does she work? _____

B Scan Scan the reading and write the answers to the questions below. Then read again to check your answers.

1. How long has Annie worked for National Geographic? _____
2. Where has she taken photographs? _____



The ancient city of Petra in Jordan, taken by Annie Griffiths Belt

1 Annie Griffiths Belt is a photographer. She has worked for National Geographic since 1978. Her photographs are well known for their beauty and quality.

The Camera Is a Passport

2 Belt travels all over the world. Everywhere, she takes pictures of people. She has found a way to connect with people of all ages and nationalities, even when she doesn't speak their language. "The camera is like a passport," she says. She is often surprised to see how quickly people welcome her. Because she is able to "break the ice" with people, Belt has become a successful photographer.

Making Connections

3 Experts say that anyone can learn how to make these connections. When people speak the same language, greetings and **small talk** can make **strangers** feel more comfortable with each other. When people don't speak the same language, a smile can be very helpful. **Having something in common** can also help. For example, Belt has traveled with her two children. When she takes pictures of children or families, they have a connection.

Becoming a Photographer

4 Belt has some advice: if you are thinking about a career as a photographer, you can volunteer to take pictures for a local organization. You can also **take a good look** at your best pictures. If you are a real photographer, your photos will be good because of your personal and technical skills. You will also be able to learn a lot by studying photos taken by professional photographers.

5 Remember, the next time you look at a beautiful photograph, you might be looking at the work of Annie Griffiths Belt. And the next time you meet a new person, don't be afraid to break the ice—the connection could be very rewarding.

- ← **break the ice, v.** – to make a personal connection
- small talk, n.** – talk about unimportant matters
- strangers, n.** – people who don't know each other well
- to have something in common, v.** – to share something with someone
- take a good look, v.** – to look carefully or seriously at something

C Read in Depth Read the article. Write the answers to the questions.

1. What is the most important idea in this article?

2. Why is Belt a successful photographer?

3. How can you make connections if you don't speak the same language?

4. What is one way to learn to be a photographer?

5. Why should you break the ice when you meet a stranger?

6. Circle the sentence you agree with.
a. A smile can help make a connection. b. It's not easy to make connections with strangers.

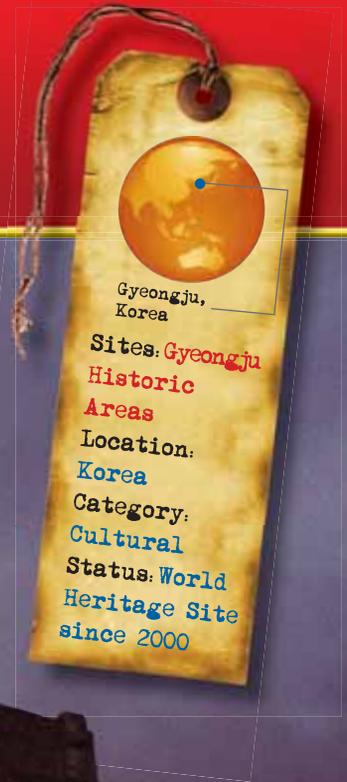
Ancient Capitals

Must-See Sights In a Gyeongju

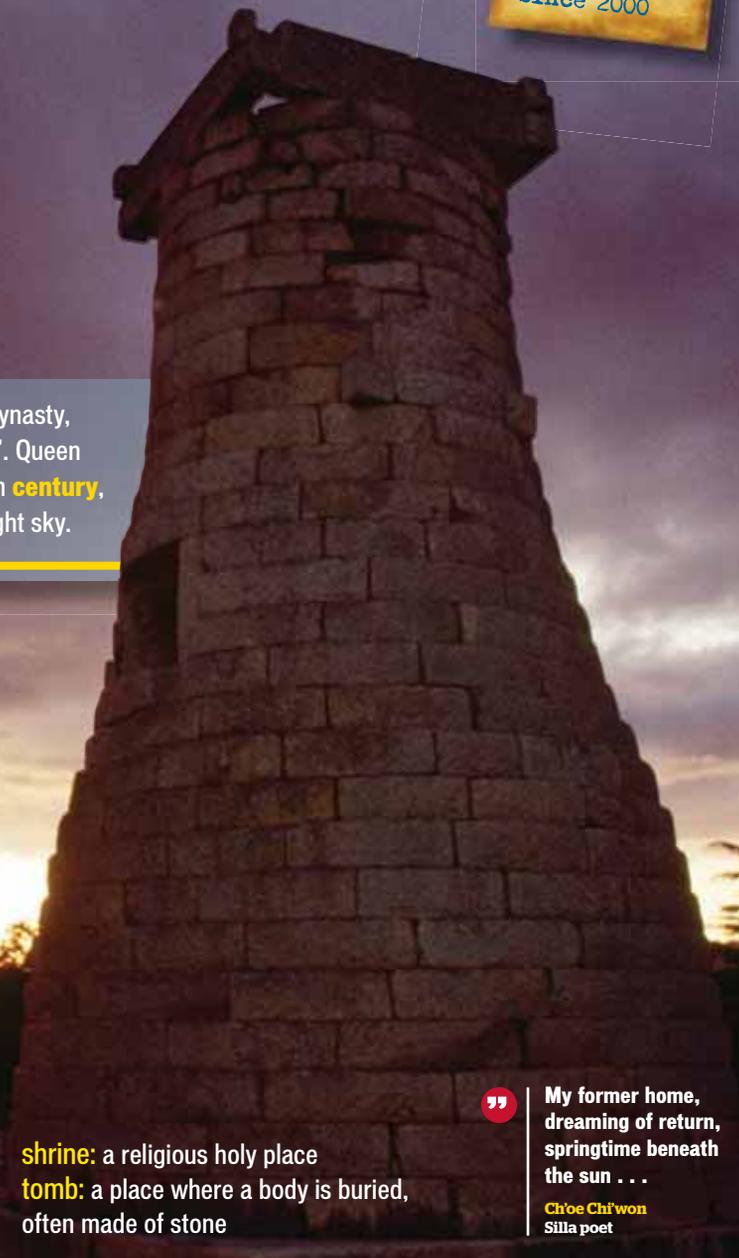
Silla Tombs In the center of Gyeongju, a city park has more than 20 stone **tombs**. One single tomb had 11,500 items of cultural and historical value.

Mt. Namsan, a rocky mountain a short distance from Gyeongju, has many temples and rock sculptures. Tourists can see hundreds of items of artistic and cultural importance here.

In the eighth century, one million Koreans lived in Gyeongju (Kyongju), a lively coastal city filled with Buddhist art and temples. For nearly 300 years, during the powerful Silla **Dynasty** the entire country was united, with Gyeongju as its capital. Today, only 150,000 Koreans live in Gyeongju. However, over five million tourists come every year to see the place where Korea was born.



Queen Seondeok, one of three female rulers in the Silla Dynasty, built **Cheomseongdae** or “Tower of the Moon and Stars”. Queen Seondeok was famous for her intelligence. In the seventh **century**, she constructed this bottle-shaped tower to study the night sky.



Glossary

century: a period of 100 years
dynasty: a series of rulers from the same family

shrine: a religious holy place
tomb: a place where a body is buried, often made of stone

””

My former home,
dreaming of return,
springtime beneath
the sun . . .

Ch'oe Chi'won
Silla poet

World Heritage Spotlight

Sites: **Historic Monuments of Ancient Kyoto**
Location: **Japan**
Category: **Cultural**
Status: **World Heritage Site since 1994**



Kyoto, Japan

In Japan, Korea's neighbor across the sea, the city of Kyoto became the country's capital at the end of the 8th **century**. During the next 1,000 years, over 1,600 religious buildings were constructed, including temples, **shrines**, and gardens. Today Kyoto is a modern city, but it still has many historic sites and traditions. Everything here, from food to dance, is a stylish form of art.

Must-See Sights In Kyoto



Ryoanji Temple 15 rocks have been carefully placed around this Buddhist garden—yet from any viewpoint, you can only see 14 rocks. Some tourists come here just to relax; others come to meditate.

Gion is most famous as the home of one of Japan's oldest and most popular forms of performance art: geisha. For centuries, geisha women have been a familiar sight in Kyoto, entertaining audiences with their songs and dances in theaters around Gion.

▲
A view of modern-day Kyoto from the 8th century Toji temple

97

Though the body moves, the soul may stay behind.

Murasaki Shikibu
Japanese poet and writer

NATURE

THEME

UNIT 3

62

5

Opening Activity

Look at the picture and answer the questions.

1. How would you describe this picture?
2. Where are these creatures?
3. What do you imagine about these creatures' lives?



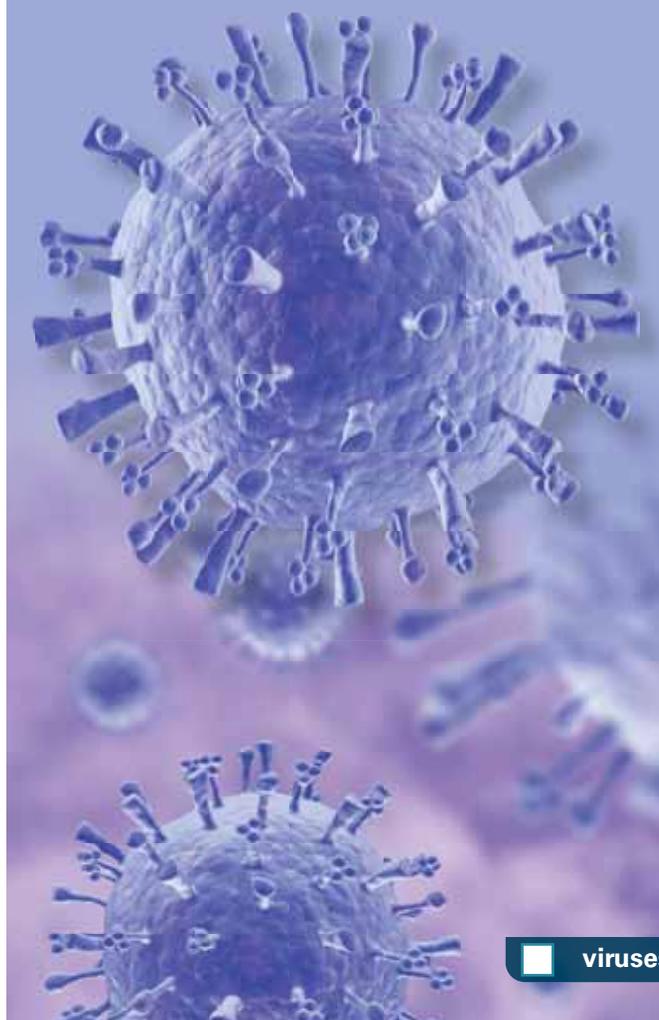
Theme Goals

In this theme, you will learn to:

- talk about scientific processes.
- talk about illnesses.
- talk about inventions and discoveries.
- describe consequences.
- use verbs with similar meanings.
- use the simple past and the present perfect.
- use the zero conditional and the first conditional.

LESSON A CHANGING NATURE

A Vocabulary in Context Look at the pictures. Read the words.



B Vocabulary in Action Listen to the news report. Check the words in **A** that you hear.

C Write the correct word from **A** in each sentence.

1. AIDS can be transmitted through contaminated blood.
2. Some kinds of _____ are hereditary, or run in families.
3. _____ cause the common cold and the flu.
4. Playing videogames for too long can result in _____ to the hand.
5. _____ is a disease that affects blood sugar levels.
6. _____ can cause health problems such as high blood pressure.

D Grammar in Context Study the chart.

Simple past vs past progressive

Examples	Explanations
Louis Pasteur developed "pasteurization" in the 1860s.	Use the simple past to talk about completed actions that happened at a specific time in the past. These actions can be one-time actions or repeated actions.
The researcher was investigating bacteria when he made a surprising discovery.	Use the past progressive to talk about an ongoing action that is interrupted by a second action. The second action is in the simple past .
I was calculating the results and Marta was writing our experiment report.	Also use the past progressive to talk about two actions that were happening at the same time in the past. Both actions are in the past progressive .

E Grammar in Action Circle the correct verb form to complete each sentence.

1. She (won / was winning) the prize when she was researching diabetes.
2. Alexander Fleming (developed / was developing) penicillin in the early 20th century.
3. Everyone (cleaned / was cleaning) the chemistry lab when the professor came in.
4. Juan carefully (placed / was placing) the sample in the petri dish.
5. Scientists in many hospitals (studied / were studying) a way to stop AIDS when they made their first discoveries.
6. The virus (changed / was changing) very rapidly while the researchers did their tests.

F Complete the experiment report by putting the verbs in parentheses into the correct tense.



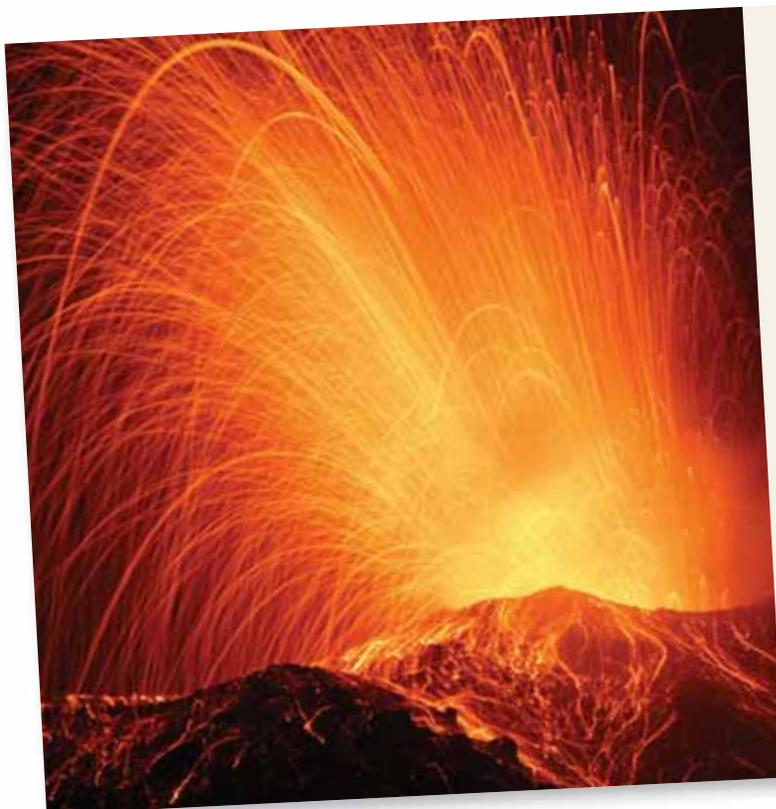
Our lab team (1) _____ (research) bacteria last week. On Monday, Marcos (2) _____ (collect) samples from the light switch in the lab while I (3) _____ (prepare) the petri dishes. After adding the samples to the petri dishes, we (4) _____ (put) them in a warm place. On Thursday, we (5) _____ (check) our samples. Many types of bacteria (6) _____ (grow) in the petri dishes! We learned that there are a lot of bacteria on a light switch!

G Communicate In your notebook, write two or three sentences about a project or an experiment you did in school. Tell your partner about it.

We did a project on AIDS. I was looking for the number of patients while José was finding out about treatments.

What did you find out?

H Vocabulary in Context Read the article and look at the words in bold.



The natural world is constantly changing. When a volcano erupts, it can cause hot gas to **explode** into the atmosphere. The gas **reacts** with water in the air and creates dangerous acid rain. If a plant **absorbs** acid rain through its leaves, it can die.

These eruptions can also send tiny pieces of volcanic material into the sky. If they **accumulate** in one area, they can **prevent** sunlight from reaching the Earth. This causes cooler temperatures.

But not all changes from a volcanic eruption are negative ones. When lava cools and **solidifies**, rich soil **forms**. Plants begin to grow quickly and animals find new homes. The earth **regenerates**.

I Vocabulary in Action Match each word with its definition.

- | | |
|--------------------|--|
| <u>d</u> 1. absorb | a. to collect or increase |
| ___ 2. accumulate | b. to create |
| ___ 3. explode | c. to grow again |
| ___ 4. form | d. to collect a liquid |
| ___ 5. prevent | e. to change by contact with something |
| ___ 6. react | f. to harden or become solid |
| ___ 7. regenerate | g. to keep from happening |
| ___ 8. solidify | h. to break apart in a violent way |

J Complete each sentence with a verb from I.

1. How does that chemical react with water?
2. Water _____, or freezes, at 0°C.
3. Some gas is incombustible, which means that it doesn't _____.
4. Water that is heated _____ vapor.
5. It is important to _____ accidents in the chemistry lab.
6. After the experiment, a solid will _____ at the bottom of the container.

K Grammar in Context Study the chart.

Simple past vs present perfect

Examples	Explanations
The volcano last erupted in 1985. <i>(It isn't erupting anymore.)</i>	Use the simple past for finished actions that have no connection to the present.
The volcano has already erupted three times this year. <i>(It will probably erupt again.)</i>	Use the present perfect for finished actions that have a connection to the present. In other words, we are thinking about the past and present together.
Antonio hasn't finished his experiment yet .	We often use ever, never, already, yet, and just with these actions.
Luisa has researched volcanoes since 2005. <i>(She is still researching them.)</i>	We also use the present perfect for unfinished actions that began in the past and continue up to now. We usually use since and for with these actions.
Sergio has been at UNAM for two years. <i>(He is there now.)</i>	

L Grammar in Action Read each sentence. Write **finished action, past and present together, or unfinished action** after each sentence.

- The substance solidified very quickly. _____ *finished action*
- The lizard's tail has already regenerated. _____
- He has run the research station for ten years. _____
- The chlorine didn't react with the water. _____
- The soil has just absorbed the liquid. _____
- Her quick actions yesterday prevented an explosion. _____

M Complete each sentence with the correct form of the verb in parentheses.

- A lot of water has accumulated under the dish since yesterday. (accumulate)
- Carmen _____ on her experiment last week. (report)
- We _____ those plants already. (measure)
- The methane gas in the test tube _____ violently. (explode)
- Gustavo and Elena _____ climate change for five years. (research)
- They _____ a solution yet. (not find)



N Communicate Write three true sentences about yourself in your notebook. Write sentences about a finished and unfinished past action, and an action that has the past and present together. Then share your sentences with your partner.

Last week, I prevented an accident at school.

What did you do?

LESSON B NATURE AND ANIMALS

A Vocabulary in Context Look at the map and read the words.



B Vocabulary in Action Listen to the recording. Number the words in the order that you hear them.

29

- 1 conservation area
- ___ flower
- ___ pine
- ___ plant
- ___ route
- ___ valley

C Complete each sentence with the correct word from **B**. You will need to use the plural form of some words.

1. El Cielo Biosphere Reserve is a conservation area in Tamaulipas.
2. There are more than 750 kinds of _____ in El Cielo.
3. In the high mountain areas of El Cielo, there are many _____ trees.
4. There are rivers and cascades, or waterfalls, in the _____ between the mountains.
5. Beautiful _____ such as orchids and lilies also grow at El Cielo.
6. If you visit El Cielo, you can follow a _____ that takes you to the most beautiful places.

H Language Builder Study the chart.

Zero conditional vs first conditional

Examples	Explanations
If a cat feels happy, it makes a special noise. If a dog holds its ears up, it is curious.	Make the zero conditional with the simple present tense in both the if clause and the result clause . Use the zero conditional to talk about things that are factual or generally true.
If scientists learn how animals communicate, it will be possible to work closely with them. If more people understand animal communication, they will treat animals better.	Make the first conditional with an if clause in the simple present tense, and a result clause in the future tense (will + verb). We use first conditional to talk about future possibilities.



30

I Listening Listen to the conversation and answer the questions.

1. What are the people talking about?

2. What kind of animals do they mention?



30

J Read each sentence. Circle **zero conditional** or **first conditional**. Then listen to the conversation and check your answers.

1. If Alejandro talks to his puppy, the puppy doesn't listen.
zero conditional first conditional
2. If you want to communicate with an elephant, you'll have to "speak elephant."
zero conditional first conditional
3. If a male bird knows a lot of songs, he'll find a partner more easily.
zero conditional first conditional
4. If a dog is happy, it moves its tail a lot.
zero conditional first conditional
5. If a dog is angry or worried, it doesn't move its tail much.
zero conditional first conditional
6. If Alejandro learns to communicate with his puppy, it will be easier to train him.
zero conditional first conditional

How Animals Communicate

Research discoveries about animal communication. Explain the process that one kind of animal uses to communicate. Create a poster that shows the most important ways in which the animal gives different messages.

A Brainstorm What do you want to know about animal communication? What are researchers learning about animal communication? Look at the words in the box. (You won't need all of them.) In a small group, make a list of *Wh*- questions. Write them in the chart in **B**.

fear
curiosity
danger
happiness
affection

B Research Look at your questions. Use the Internet to research discoveries about animal communication. Write the answers in the chart. Try to find pictures, too.

Questions	Answers

C Share Share your information with a partner. Is there any information you left out? Create your poster.

D Present Tell your classmates about the animal and how it communicates. Show them your poster. Answer your classmates' questions.



One of the most important emotions dolphins communicate is happiness.

What do they do?

LESSON C THE ANIMAL WORLD IN HARMONY

A  **Listening in Context** Listen to the recording.
31

1. Where is this conversation happening?

2. Who is talking?

B  Listen again and write **true** or **false** next to each sentence.
31

1. If we have bioserves, we won't be able to protect endangered plants and animals. false
2. If we don't protect them, they'll disappear very quickly. _____
3. If a scientist wants to study one of the animals, she'll be able to find it in the reserve. _____
4. If they make the reserve bigger, the people who live near it won't have to live somewhere else. _____
5. If they move away, they will be able to help protect the animals and plants here. _____
6. If you pay attention at the reserve, you'll probably see birds, monkeys, and snakes. _____



C  **Pronunciation** Listen to each sentence and look at the underlined words. These words are louder because the speaker wants to emphasize them.
32

- Example 1: Bioserves protect plants and animals.
Example 2: Local residents must work with the reserve.
Example 3: We are responsible for the world around us.

D  Listen to each sentence and underline the word that sounds louder. Then practice reading the sentences.
33

1. Everyone should help preserve nature.
2. If you care about wildlife, you can make a difference.
3. Scientists are studying every animal in the reserve.
4. You never know what animals you'll see here.
5. More than a hundred species of plants live in this small area.

E Speaking In your notebook, write three sentences about what will happen if we don't preserve nature. Tell your partner.

If we don't stop cutting down trees, birds won't have anywhere to live.

F Writing Complete the magazine article with the sentences in the box. Write the letter of the correct sentence on the line.

You're right! We shouldn't cut down so many trees.

- a. In fact, we can only hear about 40% of elephant sounds.
- b. That might be the best reason to keep listening to elephant talk.
- c. One of the most interesting projects is the Elephant Listening Project (ELP).
- d. Even if they are many kilometers away, they can hear each other.
- e. Who is doing the talking and what are they saying?

Elephant Talk



African forest elephants are endangered.

Humans are not the only animals that communicate and now scientists are learning not only how animals communicate, but also what messages they are sending. (1) _____

In 1984, a researcher named Katy Payne discovered that elephants make sounds that are too low for human ears to hear. (2) _____ We need special equipment to hear the other 60%. (3) _____ Elephants live in family groups that are led by females. The most important reason these females communicate is so that they know where everyone is. (4) _____

Elephants are endangered in many parts of Africa. If ELP researchers record them and follow their movements, they can also help protect these elephants. (5) _____

G Write a magazine article about a research project on animal communication.

GET CLOSE TO MEXICO

Bioreserves help preserve nature around the world. Where are there bioreerves in Mexico?

H Look at your partner's article. Does he/she use the **zero conditional** correctly?

Do Animals Laugh?



African grey parrots are excellent communicators.

A Connect with the Text Look at the pictures and the section heads. Answer the questions.

1. What animals does the article talk about? _____
2. What kind of communication is the article about? _____

B Scan Scan the reading and write the answers to the questions below. Then read again to check your answers.

1. How many names can you find? _____
2. Who are the people? Who are the animals? _____

C Read in Depth Read the article. Write the answer to each question.

1. What is the most important idea in this article?

2. What are some animal emotions?

3. How did Bongo Marie feel about Paco?

4. Why does Buffy put toys on Donaldson's body?

5. What do dogs do when they want to play?

6. Circle the sentence you agree with.
 - a. Animals can laugh.
 - b. Only people can laugh.

1 We know animals can feel fear. They may also feel love because they have strong relationships to each other. Are animal emotions similar to human emotions? Do they have a **sense of humor**?

A Parrot Named Bongo

2 Sally Blanchard had a parrot named Bongo Marie that didn't **get along with** her other parrot, Paco. In fact, it was obvious that Bongo Marie didn't like Paco at all!

3 One day, Blanchard was cooking a chicken for dinner. She started to cut the chicken with a knife. Bongo Marie said, "Oh! Paco!" Blanchard laughed. She said, "That's not Paco." "Oh... no," said Bongo Marie. This time, she sounded **disappointed**. Then she laughed at her **joke**!



sense of humor, n. – the ability to think something is funny

get along with, v. – like, as a friend

disappointed, adj. – a little sad

joke, n. – a story or something else that makes you laugh

toy, n. – an object that a baby or child plays with

hilarious, adj. – very funny

clue, n. – something that helps you understand something else



Yoga dog

4 Jean Donaldson enjoys doing yoga, and her dog Buffy does, too. When Jean sits in her yoga positions, Buffy places **toys** on Donaldson's body. If a toy falls off, Buffy puts it back. Does Buffy do this for any real reason? Donaldson says she does. "She thinks it's **hilarious!**"

Dogs may play jokes.

Animal Laughter

5 Can dogs "laugh"? Recent research shows that dogs tell each other when they want to play. They make a special sound, like a laugh. Patricia Simonet is a psychologist. She made a recording of the sound. When Simonet played the recording for dogs, they all responded positively.

6 So, do animals have a sense of humor? If laughter is a **clue**, then the answer is "yes!"



THE FUTURE



THEME

UNIT 3

6

Opening Activity

Look at the picture and answer the questions.

1. What can you see in this picture?
2. What do you think is happening here?
3. Where do you think this is?



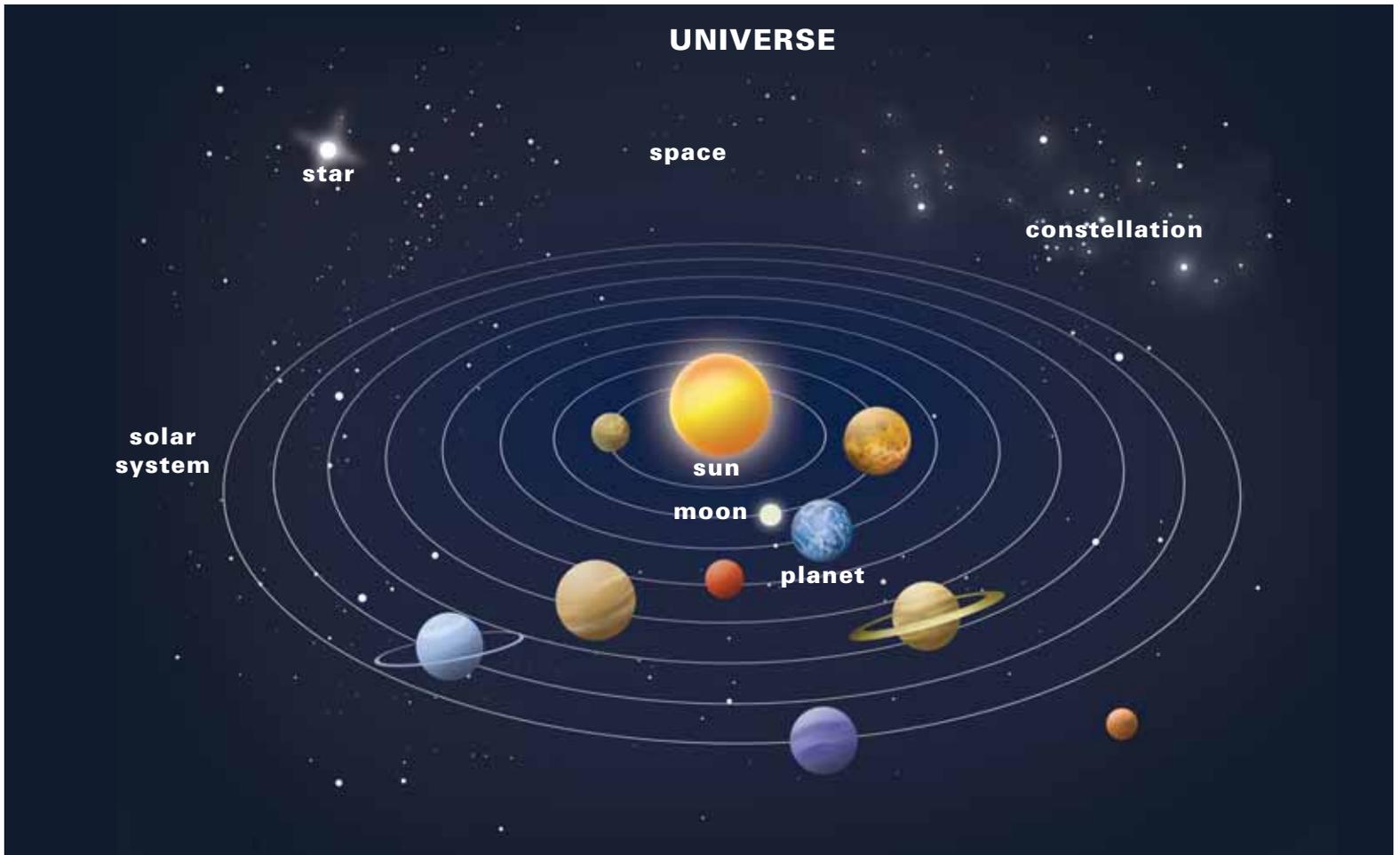
Theme Goals

In this theme, you will learn to:

- talk about space exploration.
- talk about housing and communities.
- talk about the environment.
- talk about future goals and possibilities.
- take a survey.
- use the present perfect progressive.
- use modal verbs for possibilities.
- use the first conditional with modal verbs.

LESSON A THE SIDERAL SPACE AND MY COMMUNITY

A Vocabulary in Context Look at the picture. Read the words.



B Vocabulary in Action Unscramble the words.

- | | | | |
|-------------|-------------------------|------------------|-------|
| 1. nomo | _____ <i>moon</i> _____ | 5. uns | _____ |
| 2. rsat | _____ | 6. oasrl stmyse | _____ |
| 3. tnplea | _____ | 7. psaec | _____ |
| 4. ueiesvnr | _____ | 8. itcenolsntola | _____ |

C Complete the paragraph with the correct words from the box.

constellation
moon
planet
solar system
space
star
sun
universe

We live on a (1) planet called Earth. Earth has one (2) _____, but some planets have more than one. Earth is part of a large (3) _____, with nine planets and one (4) _____. Our sun is also a (5) _____. The solar system is part of a larger area in space that we call the (6) _____.

D Grammar in Context Study the chart.

Present perfect progressive

Examples	Explanations
Humans have been studying the stars since the beginning of civilization.	Form the present perfect progressive with <i>has/have + been + -ing</i> form of the verb.
People have been dreaming about space travel for many years.	Use the present perfect progressive to talk about unfinished actions that began in the past and continue into the present.
Gonzalo has been building a model space ship all afternoon .	Use <i>for, since</i> , and time expressions such as <i>all month</i> with these actions.
Mónica has been using her new telescope a lot recently .	Also use the present perfect progressive to talk about recent past actions that have happened more than once. Use <i>recently</i> or <i>lately</i> with these actions.

E Grammar in Action Complete each sentence with the correct form of the verb in parentheses.

- Many people have been seeing strange things in the sky recently. (see)
- The International Space Station _____ Earth since 1998. (orbit)
- Researchers _____ objects into space for more than 50 years. (launch)
- A lot of space garbage _____ the atmosphere lately. (entering)
- Rita _____ the stars since she was a child. (study)
- Astronomers _____ more about the outer planets in recent years. (discover)

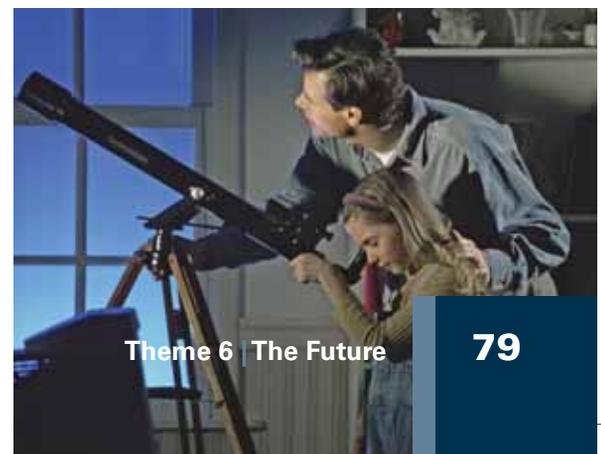
F Read each sentence and check **Unfinished action** or **Repeated action**.

	Unfinished	Repeated action
1. Astronomers have been studying the solar system since ancient times.	<input type="checkbox"/>	<input type="checkbox"/>
2. We've been hearing a lot of stories about alien visitors lately.	<input type="checkbox"/>	<input type="checkbox"/>
3. Scientists have been wanting to find life on other planets for more than a hundred years.	<input type="checkbox"/>	<input type="checkbox"/>
4. Carlos has been reading a lot of books about the Solar System recently.	<input type="checkbox"/>	<input type="checkbox"/>
5. NASA has been planning a mission to the planet Jupiter since the 1990s.	<input type="checkbox"/>	<input type="checkbox"/>
6. Astronauts have been living on the International Space Station since 1998.	<input type="checkbox"/>	<input type="checkbox"/>

G Communicate Write two or three sentences about space or space travel in your notebook. Share your ideas with a partner.

Researchers have been looking for water on Mars for many years.

Have they found it yet?



H Vocabulary in Context Read the article and look at the words in bold.

The first planned communities were built in the 1950s

For most of human history, we have not planned our communities. Even though traditional cities can be beautiful, they can also be **crowded**. It can be difficult to get electricity and water to every **neighborhood**, and they may not have enough schools, parks, or museums. **Traffic jams** are usually a big problem, too.

In the 20th century, **urban planners** began to think about better ways to build cities. They called them, “cities of the future.” A planned **community** has houses like any other city or town, but it also has schools, parks, museums, shops, and hospitals. Planned communities are usually more **energy efficient** than traditional communities. They have good **public transportation**, so people don’t have to drive cars. The houses may have **solar panels** to provide electricity and hot water.

We don’t have to wait for the “city of the future” to arrive—there are more planned communities around the world every year. Maybe you’ll live in one!



I Vocabulary in Action Write the correct word under each picture.

community	crowded	energy efficient	neighborhood
public transportation	solar panels	traffic jam	urban planner



solar panels



J Complete each sentence with a word from I.

- _____ want to build a new hospital in our neighborhood.
- My grandparents live in a very small _____ near Veracruz.
- César doesn’t have a car, so he uses _____ to get to work.
- The train was really _____ this morning!
- Marisa missed our meeting because she was stuck in a _____.
- The new school has _____ on its roof.

K Grammar in Context Study the chart.

Present perfect vs present perfect progressive

Examples	Explanations
People have built cities for thousands of years.	Use the present perfect to emphasize that the <i>result</i> of an action is important.
We have been planning this community since 2005.	Use the present perfect progressive to emphasize that the <i>duration</i> of an action is important.
Alicia has never liked the city. She has always preferred the country.	Some verbs cannot be used in any progressive (continuous) form. These verbs usually describe states. Some examples of "state verbs" are emotions, such as <i>like</i> , <i>hate</i> , or <i>prefer</i> , or mental processes, such as <i>believe</i> or <i>understand</i> . Use the present perfect with these state verbs.

L Grammar in Action Complete each sentence with the present perfect or the present perfect progressive of the verb in parentheses.

- Elena _____ in this neighborhood for 50 years. (live)
- We _____ a lot about putting solar panels on our house. (think)
- Carla _____ art museums since she was a child. (love)
- The traffic jams in this city _____ worse every week! (get)
- Juan is worried about pollution, so he _____ the bus lately. (take)
- This park _____ my favorite place for a long time. (be)

M Are the verbs below actions or states? Put them into the correct column in the chart.

be know need plan see show think want							
Action	State						



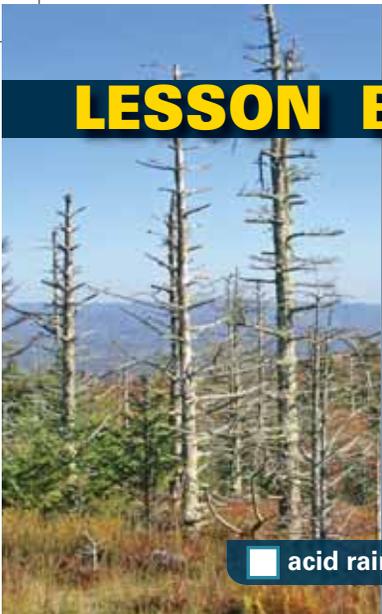
N Communicate Write in your notebook three sentences about life in your community. Think about the past and the present. Share your sentences with your partner.

People have been living in this town since 1753.

Wow! That's a long time.

LESSON B OUR PLANET AND SPACE

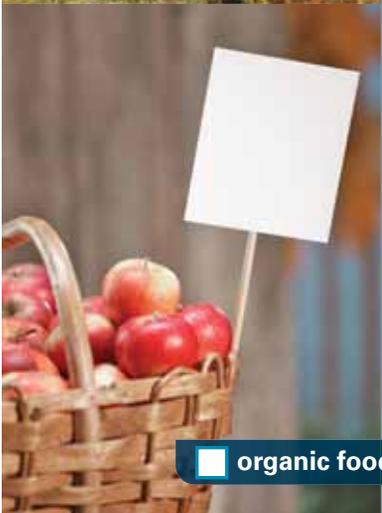
A Vocabulary in Context Look at the pictures and read the words.



acid rain



climate change



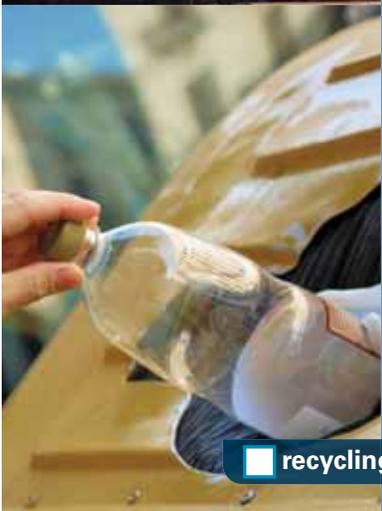
organic food



conservation



pollution



recycling

B Vocabulary in Action Listen to the conversation and check the words you hear in A.

C Which words in A are problems? Which are solutions? Put them into the correct column in the chart.

Problem	Solution
<i>acid rain</i>	

D Grammar in Context Study the chart.

Modal verbs for possibility (*may, might, could*)

Examples	Explanations
Global warming may cause extreme weather. Some countries might have more rain and snow because of climate change.	We use may or might to talk about situations that have a possibility of being true.
People could possibly stop climate change by using less energy.	We use could to talk about a situation that has an average possibility of being true. (Other situations are also possible.) We also use possibly in these sentences to show that we aren't sure.

E Grammar in Action Circle the correct modal verb to complete each sentence.

- Organic food (could / might) possibly be better for you than regular food.
- I really think acid rain (could / might) be killing the trees in our city park.
- Scientists believe that industrial activity (may / could) cause climate change.
- Recycling is one simple change you (might / could) make to help the environment.
- One day, humans (may / could) have to leave the earth because of climate change.
- Putting low-energy lights in your house (may / could) possibly use 80% less electricity.

F Write sentences about the problems that climate change could cause.

- Climate change might _____
- Climate change could possibly _____
- _____
- _____
- _____

G Communicate Look at the problems you wrote about in C. Write in your notebook three solutions. Share your ideas with a partner.



We could plant more trees in our town.

That's a good idea.

H Language Builder Study the chart.

First conditional with modal verbs

Examples

If we **keep** polluting the earth, we **won't be** able to live here anymore.

If humans **live** in space, we **could have** cities on Mars.

Explanations

Make the first conditional with an **if clause** in the present tense, and a **result clause** in the future tense (**will + verb**).

We can also use modal verbs such as **may**, **might**, or **could**, instead of **will** when the result is **less possible**.

We use both types of **first conditional** to talk about future possibilities.

I Listening Listen to the conversation and answer the questions.



35

1. Who is talking? _____
2. How do they feel? _____

J Match the first and second parts of each sentence. Then listen to the conversation again and check your answers.



35

- | | |
|--|--|
| <u> </u> <i>d</i> 1. If she goes into space, | a. we will have to live somewhere else. |
| <u> </u> 2. If she becomes an astronaut, | b. we could help people on Earth. |
| <u> </u> 3. If we spend money on space exploration, | c. she'll send him a postcard. |
| <u> </u> 4. If we keep polluting the earth, | d. she might have a heart attack. |
| <u> </u> 5. If we do research in space, | e. we might not have enough for schools. |
| <u> </u> 6. If she gets to travel to Mars, | f. she could do experiments in zero gravity. |



Living in Space

Research the possibility of human beings living in space. Where would we live? What kind of houses and cities would we have? How will we travel from one place to another? Create a presentation that talks about what our life in space might be like.

A Brainstorm What do you want to know about living in space? What do scientists think our lives will be like? Look at the words in the box. (You won't need all of them.) In a small group, make a list of **Wh-** questions. Write them in the chart in **B**.

colony	communication	construction	energy
gravity	life support	materials	transportation

B Research Look at your questions. Use the Internet to find out about the possibility of living in space. Write the answers in the chart. Try to find pictures, too.

Questions	Answers

C Share Share your information with a partner. Is there any information you left out? Create your presentation.

D Present Tell your classmates what you think living in space will be like. Show them any pictures you found. Answer your classmates' questions.



If humans live in space, we may live with artificial gravity.

How will we travel between cities?

LESSON C THE RED PLANET

A Listening in Context Listen to the conversation and answer the questions.

36

1. How old are the people who are talking?

2. How do they feel?

B Listen again. Match the questions and the answers.

36

c 1. Have you thought about climate change?

a. If it kills a lot of plants, we could run out of food.

___ 2. Why are you worried?

b. Yes, acid rain is a big problem.

___ 3. Are you worried about anything else?

c. Yes, I have. I'm worried about it.

___ 4. Why are you worried about acid rain?

d. If we conserve energy, we might have enough for a long time.

___ 5. Do you see any solutions?

e. If the earth gets warmer, the oceans might rise.

C Pronunciation Listen to the conversations and look at the underlined modal verbs. Why are they stressed? How do you think these people feel?

37

Example 1:

Do you think humans could live on other planets?

Humans could live on other planets if we have the right technology.

Example 2:

If the ocean rises, New York City might be flooded.

Yes, it might be flooded, but it might not.

D Listen to the conversations and underline the stressed modal verbs. Then practice reading the conversations with a partner.

38

1. A: I couldn't ride the bus everywhere! It takes too long.

B: Really? I could ride it most days.

2. A: Pepe thinks there might be less pollution now than five years ago.

B: Well, there might be less, but not a lot less.

3. A: This report says that we may have more rain this winter.

B: I believe it. We could even have floods!



E Speaking What do you think the future will be like? In your notebook, write three possibilities. Take a mini-survey in a small group.

F Writing Complete the web page with the sentences in the box. Write the letter of the correct sentence on the line.

- a. One solution is to make more parks and public gardens.
- b. The principal reason is that cities have a lot of buildings, but they don't have a lot of trees and plants.
- c. They are also creating "green walls," or vertical gardens.
- d. Urban planners are working to find ways to cool cities down.

How do you think we could travel in the future?

We could travel to the moon in rocket-cars!

That is really cool.

Greener Cities

Did you know that cities are usually warmer than the country? In fact, they can be as much as three or four degrees warmer. (1) _____ This will also help stop global warming.

If you want to know how to make cities cooler, you'll have to understand why they're so warm. (2) _____ Cities usually don't have much water, either.

(3) _____ If the city is old and has a lot of buildings, this might be hard to do. In some cities, people are planting "green roofs" on top of apartment and office buildings. (4) _____ If you add enough plants to an urban environment, they could make it cooler. Plants also clean up air pollution.

If a city is green, it may be healthier. In the future, more and more cities will be greener, healthier—and a lot more beautiful, too!



Green walls are one way to cool a city.

G Write a web page about a way to make cities "greener."

⏪ ⏩ ✖

GET CLOSE TO MEXICO

Climate change is having an effect everywhere. What are some of its effects in Mexico?

H Look at your partner's web page. Does he/she use first conditional with modal verbs correctly?

READING

A Connect with the Text Look at the pictures and read the captions. Answer the questions.

1. How could humans travel to other planets? _____

2. Who believes that humans should colonize space? _____

B Scan Scan the reading and write the answers to the questions below. Then read again to check your answers.

1. Who are the two scientists in the article?

2. Which two planets are mentioned in the article?

C Read in Depth Read the article. Write the answer to each question.

1. What is the most important idea in this article?

2. Why does Stephen Hawking think humans should live in space?

3. Which countries are planning to build space stations on the moon?

4. What is one reason humans should colonize Mars?

5. What are two problems about living in space?

6. Circle the sentence you agree with. Give reasons for your opinion.
a. Humans should live in space. b. Humans should stay on earth.

Many scientists believe that humans should colonize space.



Spaceships could carry humans to new homes on Mars.

LIVING ON THE RED PLANET

1 Stephen Hawking is one of the world's most important scientists. He believes that humans must move into space to survive. "Once we spread out into space and **establish** colonies, we should be safe," he says.

2 Today, some countries are already planning to send astronauts to the moon. It is the earth's closest "neighbor." Each country wants to create space stations. These stations will prepare humans to visit and live on Mars and other planets that are like Earth.

3 Robert Zubrin is a rocket scientist. He thinks humans should **colonize** space and that Mars should be the first planet we live on. If we live on the Moon and Mars, we could learn a lot about living on other planets. We can also make discoveries about science, technology, medicine, and health that can help people here on Earth.

4 But not everyone thinks that living in space is a good idea. Many people think that it's too expensive, even on a short **journey**. Most journeys in space are not short! A **one-way** trip to Mars, for example, would take about six months. Also, life would be very difficult for the first space colonists. The **atmosphere** and the **Sun's rays** are very dangerous on the Moon. People would have to stay in their houses most of the time.

5 Even with these problems, it seems certain we will live in space. In the future, we might see **lunar** cities and colonies on other planets. Our first stop is the Moon.

establish, v. – to create or build something
colonize, v. – to move to a place where humans haven't lived before
journey, n. – trip or voyage
one-way, adj. – going only in one direction
atmosphere, n. – air or other gases that surround a planet
sun's rays, n. – light that comes from the sun
lunar, n. – about or on the moon

Photo Credits:

Adobe Stock: P57 © selinofoto

Corbis: P11 (b) ©Diego Guidice/Corbis Droits géré DG, P57 ©Alberto Millares/Demotix

Dreamstime: P83 ©Maska82

iStockphoto: P4 (r1, 1) ©Roberto A. Sanchez, (r2, 1) ©Damien Gill, P6 (2) ©Clint Spencer, (4) ©ChameleonsEye, P8 (t) ©James Wright, P9 ©RyanJ Lane/Vetta Collection, P11 (t, 1) ©gokhan ilgaz, P22 (l, 1) ©Suprijono Suharijoto, (l, 2) ©Christine Glade, (l, 3) ©Jodi Matthews, (t, m) ©Carlos Martinez, (r, 1) ©andres balcazar, P34 (l, 4) ©Kemter, (l, 5) ©Chris Fertnig, P36 (t, 2) ©Sean Locke, P36 (b, 2) ©Glenda Powers, (b, 5) ©Claude Dagenais, P37 (b, 2-4) ©Dave Long, ©Steve Cole, ©Jason Lugo, P38 (l, 1) ©Jacom Stephens, P39 ©Shannon Stent, P40 ©Svetlana Braun, P41 ©Cagri Özgür, P44-45 ©Felipex, P45 (l, 2-3) ©swalls, ©Leon Rafael, P48 (t, 3) ©Tomml, (b, 2) ©CostinT, P50 (r) ©Don Bayley, P52 (t, 1-3) ©Chad Zuber, ©Diego Cervo, ©Tim Gluth, (b, 1-3) ©Gary Arbach, ©Thanh Lam, ©Jane Tyson, P53 ©MorePixels, P54 (l, 2) ©Chris Elwell, (b, 2) ©Mark Wragg, P56 (l) ©Jorgen Udvang, (m) ©Tracy Fox, P64 (m) ©Antti-Pekka Lehtinen, P65 ©Shawn Hempel, P75 (m, 2) ©Emilia Kun, P80 (m, 3) ©Susana Morales, (m, 5) ©andres balcazar, P81 ©Francesco De Napoli, P82 (l, 2-3) ©David Andrés, ©acilo, (r, 1-2) ©Bart Sadowski, ©kokouu, P84 ©Mooneydriver

Jupiterimages: P14-15 ©Brand X Pictures, P34 (t, m) ©Getty images, P48 (t, 1) ©Steve Allen/Photodisc, P67 ©Getty Images

Shutterstock: P4 (t) ©Pichugin Dmitry, (r1, 2) ©Vibe Images, (r1, 3) ©Lars Christensen, (r2, 2) ©Gerald Bernard, P6 (1) ©PRILL Mediendesign und Fotografie, (3) ©Fedorov Oleksiy, (5) ©Vladislav Gurfinkel, (6) ©Jerry Sharp, (7) ©Etienne du Preez, P8 (m) ©WDG Photo, (b) ©aceshot1, P10 ©Patryk Kosmider, P12 ©Yuri Arcurs, P11 (t, 2) ©Smit, P19 ©Rehan Qureshi, P22 (r, 2) ©AISPIX by Image Source, (r, 3) ©stefanolunardi, P24 ©Tyler Olson, P25 ©photobank.kiev.ua, P26 ©Jose Gil, P34 (l, 2) ©Wavebreak Media Ltd, P35 (r-1) ©Simone van den Berg, ©Melianiaka Kanstantsin, P36 (b, 6) ©eurobanks, P37 (b, 5-6) ©Andresr, ©Yuri Arcurs, P38 (l, 2-4) ©Vitalii Nesterchuk, ©GekaSkR, ©Alexandra Lande, P38 (t, m) ©Specta, (r, 1-3) ©salajeau, ©Valery V. Markov, ©TEA, P42 ©Losevsky Pavel, P43 (r) ©icyimage, P48 (t, 2) ©Vadim Petrakov, (b, 1) ©ZDreamer, (b, 3) ©trappy76, P50 (l) ©andreasnikolas, P52 (t, 4) ©Feng Yu, (b, 4) ©Supri Suharijoto, P54 (l, 1) ©Mark Stout Photography, (l, 3-4) ©anyunov, (b, 1) ©Alena Brozova, (b, 3-4) ©Adisa, ©Sandra van der Steen, P56 (r) ©Denise Kappa, P55 (t, 1-3) ©Boris Sosnovyy, ©Yellowj, ©Giuseppe_R,

(m) Monkey Business Images, P64 (l, 1-2) ©mangostock, ©PeJo, (r, 1-3) ©Graphic design, ©Matt Valentine, ©Dmitry Lobanov, P66 ©Bierchen, 2010, P69 ©Marcio Jose Bastos Silva, P70 ©mlorenz, P71 ©Lurii Davydov, P72 ©holbox, P73 ©Uryadnikov Sergey, P75 (m, 1) ©Nici Kuehl, P80 (t) ©Gary Blakeley, (m, 1) ©topseller, (m, 6) ©Miks, P82 (l, 1) ©Mary Terriberly, (l, 4) ©Mikhail Zahranichny, P86 ©Ian Tragen

Thinkstock: P4 (r2, 2) ©Comstock, P6 (8) ©iStockphoto collection, P11 (t, 3) ©iStockphoto collection, P20 ©Jupiterimages for Getty Images, P22 (r, 4) ©Brand X Pictures, P34 (l, 1) ©Medioimages/Photodisc, (l, 3) ©iStockphoto collection, (l, 6) ©iStockphoto collection, P36 (t, 1) ©Hemera collection, P36 (t, 3) ©Keith Brofsky, (b, 1) ©iStockphoto collection, (b, 3) ©Jupiterimages, (b, 4) ©Comstock, P37 (b, 1) ©Wavebreak Media, P43 (l) ©iStockphoto collection, P45 (l, 1) ©iStockphoto collection, P49 ©iStockphoto Collection, P51 ©Comstock Images, P79 ©Jupiterimages for Getty Images, P80 (m, 2) ©Keith Brofsky, (m, 4) ©Jupiterimages, P87 ©iStockphoto collection

National Geographic: P2-3 Mike Theiss/NGC, P16-17 Sergio Pitamitz/NGC, P28-29 Mark Thiessen/NGIC, P32-33 Patrick McFeeley/NGIC, P46-47 Sean Gallagher/NGC, P58 (b) William Allen/NGIC, P58-59 Anne Griffiths Belt/NGIC, P62-63 Klaus Nigge/NGC, P74 Vincent J. Musi/NGIC, P75 (b) Yva Momatiuk & John Eastcott/Minden Pictures/NGIC, (t) Kenneth Love/NGIC, P76-77 Dmitri Alexander/NGC, P88-89 NASA

Text Credits: P28-29 Adapted from "Russian Smokejumpers," by Gleen Hodges: NGM, Aug 2002, P58-59 Adapted from "Connect With Anybody, Anywhere," from National Geographic Live, Tuesday, December 11, 2007 at 7:30 p.m., P74-75 Adapted from "What's So Funny?," by Aline Alexander Newman; NGC, Apr 2006, P88-89 Adapted from "Spacd: The Next Generation," by Guy Gugliotta: National Geographic Magazine, Oct 2007, and "Q & A with Robert Zubrin," by Ted Chamberlain: National Geographic Adventure, Sep/Oct 2000,

Illustrations: P28, National Geographic Maps

On Website: Theme 1 ©Josef Friedhuber, ©ekash, Theme 2 ©Liu Jixing, Theme 3 ©Reflekta, Theme 4 ©franckreporter, Theme 5 ©Michael Drager, Theme 6 ©Johannes Kornelius

National Geographic Creative = NGC, National Geographic Magazine = NGM, National Geographic Explorer = NGE, National Geographic Traveler = NGT, National Geographic Image Collection = NGIC, National Geographic = NG