

People canoe in the Rhodope Mountains of Bulgaria. Over 36 percent of Bulgaria is forested, and the country has 3 national parks, 11 nature parks and 55 nature reserves that range from the tallest mountains on the Balkan Peninsula to the sands of the Black Sea. © valio84sl/Getty Images

Impact second Edition

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SCOPE AND SEQUENCE









Pushing the Limits

It Takes a Village p. 26

Food Matters p. 44

The Footprint of Fun

p. 62

b. 8

Pushing mental and physical THEME limits

Humanitarianism and crowdsourcing

Food sustainability Suffix -ful

Use context

The environmental impact of entertainment

VOCABULARY STRATEGIES

Prefix un-Use a dictionary Suffix -ion Identify parts of speech

Offering advice and accepting or declining advice

Prefix pro-Use visuals to guess meaning

SPEAKING

Showing interest in a conversation Demonstrating curiosity Making suggestions and agreeing or disagreeing Seeking compromise

Showing respect for others

Defending your opinion Demonstrating sensitivity to different viewpoints

Embedded clauses, indirect questions and commands

I think extreme sports are dangerous. Adding emphasis with cleft

The place (where) my

sister loves hiking is the

Future tenses: Describing events in the future

Quantifiers: Expressing

Over half of/fifty per cent

of the world's population is

amounts

under thirty.

Over the next few years, people will look online to find volunteers to help with disaster relief.

Mixed conditionals: Expressing how things would be different

If I hadn't learnt about overfishing, I would still be eating tuna.

Double comparatives: Describing outcomes

The more people there are in the world, the more food we need to produce.

Passives: Describing actions and processes

What has been done by musicians to reduce their ecological footprint?

Verbs followed by gerunds or infinitives

Most water parks want to use less water./How can they avoid wasting water?

GRAMMAR

No Limits

Himalayas.

sentences

Teen Changemakers Strategy: Identify text features Farming in a Changing Climate Strategy: Use prior knowledge

Game Over

Strategy: Identify author's purpose

READING

A Tribute to Discomfort

Strategy: Summarise

Mapping for Good

Should We Eat More Bugs?

The Footprint of Fans

WRITING

VIDEO

Genre: Biography Focus: Identify chronological

Test Your Limits

order

Genre: Persuasive essay Focus: Persuade your readers Genre: Review

Focus: Use facts and opinions to review

Genre: Problem and solution

essay Focus: Identify problems and solutions

MISSION

National Geographic Photography Fellow: Cory Richards, Photojournalist **Do Your Part**

National Geographic Young Explorer: Ana Luísa Teixeira, Geographer

National Geographic Explorer: **Barton Seaver.** Chef/Conservationist

Know Your Food

Reduce Your Footprint National Geographic

Ambassador to the Arts: Jack Johnson, Musician

SUSTAINABLE DEVELOPMENT **GOALS** Good Health and Well-being; Quality Education; Reduced Inequalities

Reduced Inequalities: Sustainable Cities and Communities; Peace, Justice, and Strong Institutions

Zero Hunger; Responsible Consumption and Production; Life Below Water

Affordable and Clean Energy: Sustainable Cities and Communities; Climate Action

LITERACY

BUILDER

Genre: Realistic fiction Josie Takes a Risk Strategy: Create closure

Genre: Comic strip The Adventures of Crisis Crusher Strategy: Summarise and

retell

Genre: Food blog Connecting to My Culture with **Arepas** Strategy: Identify steps in a process

Genre: Invitation Reduce, Reuse, Recycle, Rock!

Strategy: Engage the audience









5 Why We Explore Giants p. 98

6

Creative Problem-Solving p. 134 p. 116

Art Connections

			p. 116		
THEME	Why it's important to explore	Giant plants and animals of the past and present	Problems and how people creatively solve them	Art and our connection to it	
VOCABULARY STRATEGIES	-, -, -,		Latin roots (flex) Identify synonyms	Suffixes -ic , -ive Identify collocations	
SPEAKING Hesitating when answering questions Linking feelings, values, and thoughts		Speculating Asking why someone thinks something	Asking someone to defend an opinion Reflective listening	Interpreting and expressing understanding Avoiding misinterpretations	
GRAMMAR	Narrative tenses: Telling a story Barrington Irving had been preparing to become a pilot since he was 15. Geographic use of the I'm going to the Himalayas to climb Mount Everest (Qomolonga).	Relative clauses: Defining and non-defining Megalodon, which was a fierce predator, was able to catch the largest whales. Reduction of relative clauses My brother, (who is) a filmmaker, created a documentary about manta rays.	Wish and if only: Expressing wishes and regrets I wish I were at the STEM fair right now. Adverbs: Expressing different levels of intensity Inventor Emma Yang is so clever. But she is rather shy.	Reported speech: Describing what others say He argued that it couldn't be an original painting by Georgia O'Keeffe. Phrasal verbs Artists want to draw in their viewers. A true artist comes up with unique ways to express themself.	
READING	The Explorer Gene Strategy: Connect to personal experience	Discovering Spinosaurus Strategy: Make inferences	Combatting Climate Change, One Idea at a Time Strategy: Identify Problem and Solution	Microscopic Marvels Strategy: Ask questions	
VIDEO	VIDEO Why Is It Important to Explore? Super Tree		Sanga's Solution	Exploring Ourselves Through Art	
WRITING	Genre: Compare and contrast essay Focus: Use transitions to compare and contrast	Genre: News report Focus: Include answers to the seven <i>Wh</i> - questions	Genre: Exemplification essay Focus: Use relevant examples to present a topic	Genre: Art review Focus: Answer key questions to provide facts and opinions	
MISSION	Take Action National Geographic Explorer: Christine Wilkinson, Conservation Biologist	Make Big Plans National Geographic Explorer: Nizar Ibrahim, Paleontologist	Don't Give Up National Geographic Explorer: Tan Le, Innovator/ Entrepreneur	Connect Through Art National Geographic Photographer: Stephen Alvarez	
SUSTAINABLE DEVELOPMENT GOALS	Quality Education; Life on Land	Life Below Water; Life on Land	Good Health and Well-being; Industry, Innovation, and Infrastructure; Reduced Inequalities	Reduced Inequalities; Responsible Consumption and Production	
LITERACY BUILDER	Genre: Biography Wayfinding: Keeping Traditional Navigation Alive Strategy: Analyse cause and	Genre: Adventure fiction A Journey to the Centre of the Earth Strategy: Identify and use	Genre: Essay <i>Droidganiser</i> Strategy: Support claims	Genre: Free-verse poem Wildflower Wake-Up Strategy: Use figurative language	

descriptive language

effect

MEET THE EXPLORERS



Unit 1 CORY RICHARDS Photojournalist

Cory Richards takes pictures all over the world. He uses these photos to tell stories about people and places around the world. He's been to all seven continents, climbed some of the tallest mountains on Earth, and hiked in below-freezing temperatures. Cory has overcome extreme obstacles and has pushed himself to his limit. He doesn't mind being out of his comfort zone. Do you?



Unit 3

BARTON SEAVER Chef/Conservationist

Barton Seaver wants you to think about what you eat. As a chef and conservationist, Barton has travelled all over the world to cook and eat different foods. He likes to learn about people and cultures through food. Now he works to raise awareness about healthy eating and seafood sustainability.



Unit 2

ANA LUÍSA TEIXEIRA Geographer

Ana Luísa Teixeira and her team are helping to put communities on the map, literally. She is a geographer who documents and collaborates with traditional communities in the Amazon rainforest in order to map remote areas and bring awareness to the issues these communities face. The data she collects is helping remove these communities from geographic invisibility and empowering them to maintain rights to their land.



Unit 4

JACK JOHNSON Musician

Jack Johnson is a musician, surfer, and environmentalist. He uses his music to promote sustainability and conservation. Jack travels to his concerts in biofuel buses and promotes sustainable local food at his shows. Jack proves that being green and having fun can go hand-in-hand. What do you like to do for 'green fun'?



Unit 5

CHRISTINE WILKINSON Conservation Biologist

Christine Wilkinson is a conservation biologist, carnivore ecologist, and science communicator. In her work, she uses mapping, ecological research, and community outreach to look at human-wildlife conflict. By working with local communities, Christine is able to engage with the people closest to the issues. She sees these local perspectives as a necessary step in overcoming conservation challenges and finding solutions that benefit both people and animals.



Unit 7

TAN LE Innovator/Entrepreneur

Have you ever wanted to be able to move objects with your mind? Tan Le created a portable brain scanner that can do just that! It also helps doctors better understand the healthy human brain. Tan went through a long process of trial and error before her brain scanner worked, which taught her that failure is a step towards success.



Unit 6

NIZAR IBRAHIM Paleontologist

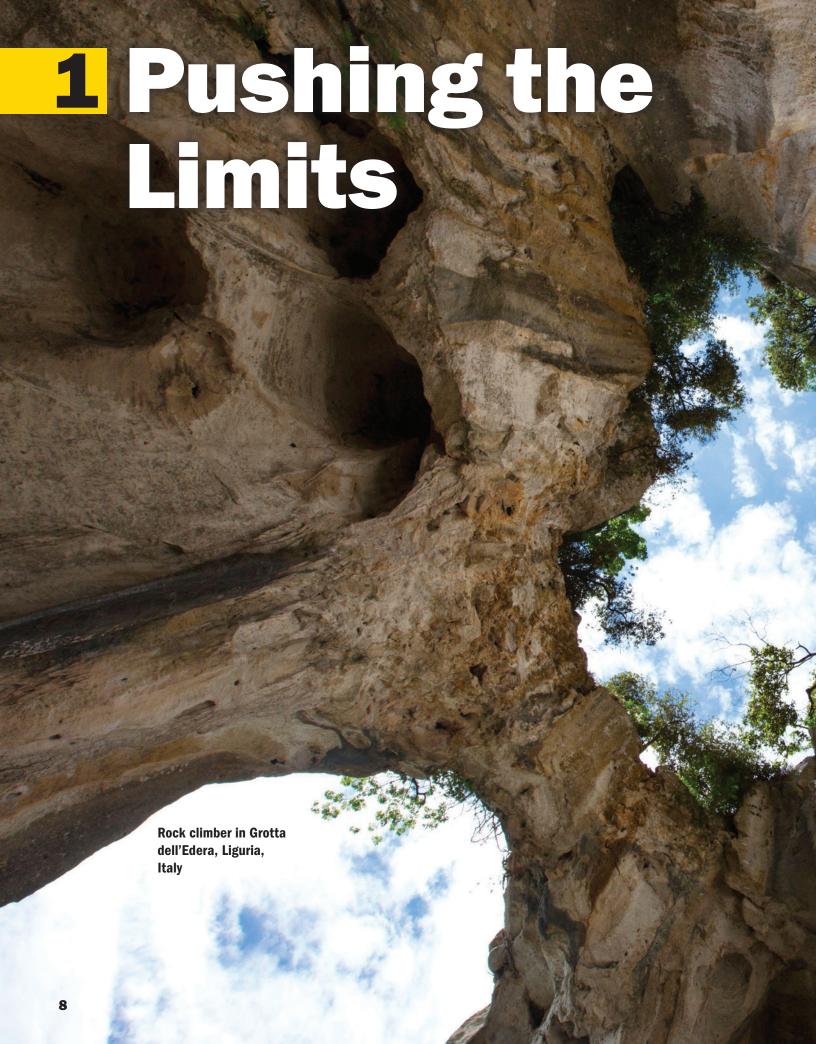
Nizar Ibrahim is German/Moroccan. As a child in Germany, he wanted to learn about dinosaurs. He's lucky, because now that's his job, as he searches for dinosaurs in Morocco. He decided to hunt for dinosaurs there because very little research has been done in the Sahara Desert. Imagine how excited he was to find fossils of a prehistoric giant, *Spinosaurus*.



Unit 8

STEPHEN ALVAREZ Photographer

Photographer Stephen Alvarez believes art has the power to connect people across time and distance – even from the prehistoric world to people today. In 2014, he photographed ancient art in the Chauvet-Pont-d'Arc cave in France. These paintings were made 36,000 years ago! Stephen felt very connected to the ancient artists that created them. Does art help you connect with others?





VOCABULARY

1 Look at the photos. How do you think each person is feeling? Discuss. Then listen and read. **◄) 1.1**

Have you ever **pushed yourself** to your **limit**? Do you know anyone who has? Do you ever wonder what can be gained by climbing a tall cliff – or jumping off it? Why do something that causes the body **pain**?

People can be really changed by pushing themselves. These experiences teach **determination**. Often, the desire to achieve our goal **enables** us to take **risks**. Many people take mild risks. Some feel a need to reach the unreachable.

Extreme athletes test their own **mental** and **physical** boundaries. In most traditional sports, athletes compete against one another. But in some extreme sports, the biggest **opponent** is nature.

In the photo of ice climber Angelika Rainer, she's climbing at the Ouray Ice Festival Elite Mixed Climbing Competition in Ouray, Colorado, US. Ice climbing can be dangerous, since climbers can't be sure how solid the ice is, and they often climb in very cold temperatures. But for extreme athletes like Rainer, risk is just part of the job. The same is true for big-wave surfers. Animals such as sharks and jellyfish pose serious risks to surfers. Another **obstacle** that surfers must **overcome** is the force of the water. In the photo of surfer Kai Lenny, he is riding a big wave at the Nazaré Challenge in Portugal. Nazaré is known for its giant waves. So how can people do such amazing things? 'Once you know how to tap into fear, you can use it to do things you never thought were possible,' says Kai.

Athletes who participate in the *Marathon des Sables*, or MdS, need to have incredible **strength**. In this desert marathon, participants must cross a distance of approximately 250 km (155 mi.) over five or six days. The event takes place in the Sahara Desert, where temperatures can reach more than 50°C (122°F). It's no wonder that the MdS is considered the **toughest** race on Earth!

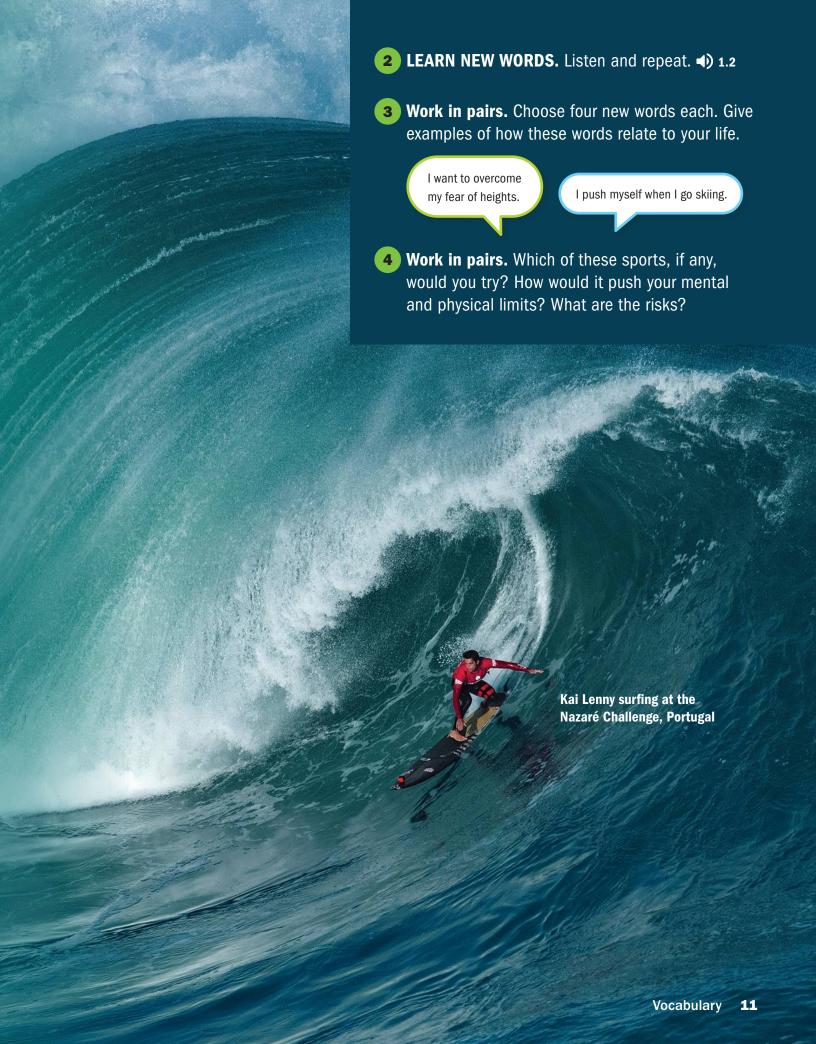
The athletes in these photos are **role models** for anyone seeking adventure. Do they inspire you to push your own limits?



Angelika Rainer ice climbing



The Marathon des Sables desert marathon



5 Read and write the words from the list. Make any necessary changes.

determination mental obstacle opponent overcome pain physical push himself role model tough

Photographer and adventurer	: Cory Richards is used to	difficult conditions. Cory		
has	many difficult	to		
bring us some incredible outdoor action photography. Cory believes that pushing his				
and		limits helps him to better		
connect with himself and with the world.				
In 2011, Cory successfully climbed an 8,000 m (26,000 ft.) peak in the middle				
of winter. This extremely	cha	allenge nearly cost him his life.		
On the way down, Cory and his team were caught in a major avalanche.				
'Once the avalanche took us, there was no more fear,' says Cory.				
Although this experience scared	him, he still takes risks to	get a		
great photo. Cory's	and strer	ngth make		
him a great	for anyone who v	vants to		
push their boundaries.				

6 LEARN NEW WORDS. Listen for these words and match them to the definitions. Then listen and repeat. **4**) **1.3 and 1.4**

	achieve	boundary	unbelievable	unreachable
_			1. incred	lible
_			2. limit	
_			3. accon	nplish
			4. impos	ssible

- 7 Your Choice Choose an activity.
 - A. **Work independently.** Create a profile of a real or invented extreme athlete. Say what characteristics this person has and how these traits help them achieve their goals.
 - B. **Work in pairs.** Roleplay an interview between a TV reporter and an extreme athlete who has just completed a new challenge.
 - C. **Work in groups.** You are organising a competition for an extreme sport. Create an advertisement looking for the right people to participate in your event.



SPEAKING

Showing interest in a conversation **●** 1.5

Statement Responses

I love to surf. Wow! What's that like?

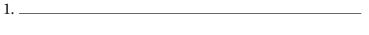
No way! I never knew that you could surf.

What can you tell me about surfing?

Tell me more about how you learnt to surf.

You're a surfer? Me, too!

- **1 Listen.** How do these speakers show interest in the conversation? Write the phrases you hear. ◀) 1.6
- **2 Listen.** Write an appropriate response to show interest. **4**) 1.7



- 2. _____
- 3. _____
- 4. _____
- 5. _____
- **3 Work in pairs.** Spin the wheel. Make a statement about the topic the spinner lands on. Your partner uses the phrases above to show interest and maintain the conversation. Then swap roles.
- 4 Work in groups. Do you take risks? Share stories about risks you have taken. Tell one true story and one false story. See if your group can guess the true story. Use the phrases above to demonstrate curiosity in one another's stories.



Extreme ironing

Conversation tip: Demonstrating curiosity

When talking to another person about their experiences, be curious. Ask questions to learn about both the person and the topic.



Go to Game 1A.

GRAMMAR

Embedded clauses, indirect questions and commands 1.8

I think . . . Extreme sports are dangerous.

I wonder . . . What obstacles has Cory overcome?

Do you know . . . Can we climb that mountain in winter?

I'm asking you . . . Try snowboarding.

Go to the Grammar Reference for more information.

I think (that) extreme sports are dangerous.
I wonder what obstacles Cory has overcome.
Do you know <u>if</u> we can climb that mountain

in winter?

I'm asking you to try snowboarding.

- **1** Work independently. Listen to the speakers. Then complete the embedded clause, indirect question, or command. Remember to change the order of words when necessary. ◀) 1.9
 - 1. She's guessing _____
 - 2. He's wondering _____
 - 3. You're telling me _____
 - 4. I think _____
 - 5. I'm asking you _____
- **2 Work in pairs.** Match the expressions in the left column to the sentences in the right column to make sentences with embedded clauses, indirect questions and commands.

I wonder Wear a helmet when you ride your bike.

I think Had Cory been in an avalanche before?

I'm asking Teach your brother how to surf.

I'm telling How many countries has Cory visited?

Do you remember if You could try ice climbing.

- I wonder how many countries Cory has visited.
- 2
- 3. _____
- 4._____
- 5. ____

3 LEARN NEW WORDS. Listen and read about a mental challenge.

Then listen and repeat. 1.10 and 1.11

Extreme sports push physical limits, but there are also ways to push mental limits. Robotics is one example. It has been called 'the ultimate sport for the mind.' Each year, thousands of students from around the world gather to **demonstrate** their skills in technology, engineering, design, and teamwork in the FIRST Robotics Competition. The goal of the FIRST Robotics programme is to inspire students to become leaders in science and technology.

To prepare for this **event**, teams build robots that can weigh up to 63 kg (140 lbs). Robots must cooperate while participating in field games against other teams. Humans use remote controls to move the robots, which can be a



A student from Brazil works on her robot at a FIRST Robotics event in Montevideo, Uruguay.

struggle. Robots must complete tasks such as stacking objects, racing one another, or throwing balls. The designers of the winning robots are the champions, but there are also awards for areas such as creativity and safety.

Do you wonder if you could be a part of FIRST Robotics? The answer is yes! Just find some team members and an adult who knows about robotics in your community. With some determination, you could be on your way to the FIRST Robotics Competition.

4 Work in pairs. Write sentences using the words below, Include an embedded

clause, indirect question or commar	nd in each sentence.
1. wonder / event / time	I wonder if the event takes much time.
2. guessing / struggle / difficult	
3. think / student / prepare	
4. telling / join / robotics team	
5. asking / design / robot	

5 Work in groups. Think of other competitions that provide mental challenges. What do you know about them? What questions do you have? Discuss in your group, using embedded clauses, indirect questions and commands as much as possible.

READING

1 Work in pairs. Look at the photos, caption, and title. What do you think this text is about?

2 LEARN NEW WORDS. Find the words below in the text. What do you think they mean? Use a dictionary to check. Then listen and repeat. ◆) 1.12

beyond consequence in control optimistic

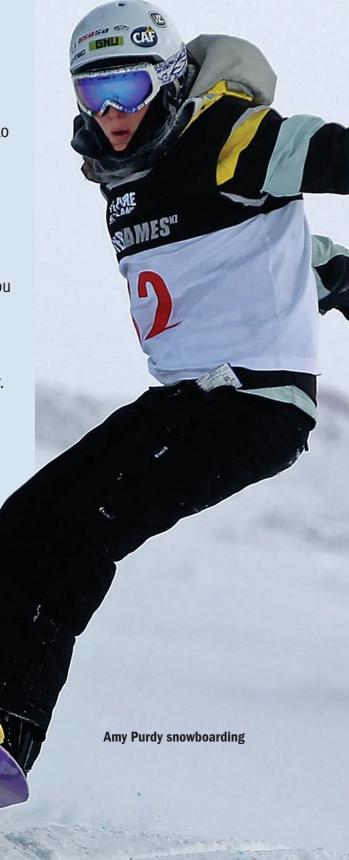
Summarise While you read, pause after each paragraph to summarise it. When you summarise, you say what the text is about in your own words. ◀) 1.13

4 Summarise Work in pairs. Reread the text. Then without looking, take turns saying what you remember. Use your own words.

5 Work in groups. Answer the questions.

- 1. How did Amy lose her legs?
- 2. What other negative consequences did Amy suffer from meningitis?
- 3. What was it like for Amy to learn to use her new legs?
- 4. What other success has Amy had?
- 5. How does Amy work to help others?

6. What character traits describe Amy?



NOLIMITS



AMY PURDY SEES HER LIMITATIONS AS A GIFT THAT HAS HELPED HER **DO AMAZING THINGS.**

Amy Purdy is a world-class athlete, actress, model, and author. She hasn't let anything slow her down - even the loss of both legs! In fact, Amy has achieved much of her success after she lost them.

When Amy was 15, she started snowboarding. After finishing school, she moved to the mountains, so she could snowboard in her free time. She felt totally in control of her life. But then at 19, she contracted meningitis, a horrible disease that left her with only a two per cent chance of survival. Amy survived, but there were terrible consequences. She lost a kidney, the hearing in her left ear, and both legs below the knees.

For a long time Amy felt depressed. But she decided not to let this situation take over her life. By the time she was 21, she was back on her board, wearing artificial legs she had built herself. The first time she tried to use them, she fell off and her legs kept going down the hill without her!



Amy was determined to keep snowboarding. After several years of training, she was again at her best on the mountains. In fact, she became the Para-Snowboard World Champion in 2012 and has three Paralympic medals. In 2022, she became a member of the Adaptive Sports Hall of Fame.

Amy's achievements have gone beyond all her expectations. In addition to her success at snowboarding, she has worked as a model and an actress. She has made a podcast and has written a book about her experience. Amy and her husband also founded a company designed to train people with various disabilities to participate in events such as the Paralympics.

In 2019, Amy had to overcome another obstacle. She had a pain in her left leg which she soon learnt was a blood clot from her hip down through her left leg. Amy had ten operations to get blood to flow in her leg again. Amy knows what it means to struggle, but she stays optimistic. 'Your body might break at times, but as long as your spirit doesn't break, you'll get through it.'

Discuss in groups.

- 1. How did getting meningitis impact Amy's life? Identify positive and negative impacts.
- 2. Do you agree that disadvantages can become advantages? Explain using your own experiences if possible.
- 3. At the end, Amy says 'as long as your spirit doesn't break, you'll get through it.' What does she mean by that? Are you as optimistic as Amy? Why or why not?

VIDEO

- Discuss in pairs.
 - 1. Describe a time when you experienced an uncomfortable or dangerous situation.
 - 2. What do you do when you feel stressed? What do you think Cory does?
 - 3. Think of a photo that has taught you something. Describe the photo and what you learnt from it.
- **Work in pairs.** The title of this video is *A Tribute to Discomfort*. Using the title, the photo, and what you already know about Cory, predict what you think the video will be about.
- 3 Watch. ▶ 1.1 Preview the questions in Activity 4. Take notes to help you answer the questions.
- 4 Discuss in pairs.
 - 1. What is adventure for Cory?
 - 2. Why does Cory take photos in extreme places?
 - 3. What is Cory's most important tool for connecting with the people he photographs?
 - 4. How has Cory's photography changed since he started?