

# 3 Fire

## DISCUSSION POINT

Work with a partner. Discuss the questions.

- 1 What are five words you associate with "fire"? Are the words mostly positive, negative, or neutral?
- 2 When was the last time you were near a fire? Why do you remember it?
- 3 What are some ways fire can be used to benefit us?



## USES OF FIRE



### Cooking and heating<sup>1</sup>

About three billion people worldwide cook and heat their homes with fire.



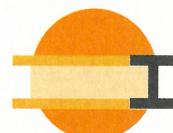
### Lighting

Candles are used in seven out of ten households in the USA.



### Ceremonies

The Oniyo New Year's Fire Festival in Japan has been celebrated for the past 1,600 years.



### Manufacturing

Fire is used in the production of 1,600 metric tons of steel every year.

▶ VIDEO

A BURNING ISSUE

A photograph of a firefighter in full protective gear, including a yellow suit, helmet, and oxygen tank, holding a hose and standing next to a burning structure.

## BEFORE YOU WATCH

Match the words in bold with the correct definitions.

- 1 **drained** (adj)
- 2 **shift** (n)
- 3 **faint-hearted** (adj)
- 4 **gallon** (n)
- 5 **tackle** (v)

- a to make an organized and determined attempt to deal with a problem / to put out a large fire
- b feeling as though you have no mental or physical energy left
- c a period of work time
- d an amount of liquid equal to 3.79 liters in the USA.
- e not brave or enthusiastic

# UNIT AIMS

- LISTENING 1** Listening to distinguish between fact and opinion  
**LISTENING 2** Listening for sequence of events  
**ACADEMIC SKILL** Cohesion

- VOCABULARY** Synonyms  
**GRAMMAR** Using stance markers  
**SPEAKING** Changing the topic and returning to it



Lanterns in the sky at Yee Peng festival, Thailand

## WHILE YOU WATCH

▶ Watch the video and complete the statements with a number.

- 1 The firefighters often have to do \_\_\_\_\_-hour shifts, which can leave them drained.
- 2 A fire engine can carry over \_\_\_\_\_ gallons of water.
- 3 16 of the \_\_\_\_\_ most destructive wildfires in California have happened in the last \_\_\_\_\_ years.
- 4 Jared Abbott has been a professional firefighter for \_\_\_\_\_ years.
- 5 He typically does three \_\_\_\_\_-day assignments every year.

## AFTER YOU WATCH

Work with a partner. Discuss the questions.

- 1 How do you think people accidentally cause forest fires?
- 2 What can you do to help prevent forest fires?
- 3 What would be the advantages and disadvantages of working like Jared Abbott?

## THE HEALING POWER OF FIRE

### A VOCABULARY PREVIEW

**1** Match the words in bold with the correct definitions.

- |                                   |  |
|-----------------------------------|--|
| <b>1 adapted to</b> (v)           | a got larger   |
| <b>2 ancestors</b> (n)            | b the heat produced by something                           |
| <b>3 expanded</b> (adj)           | c as a result, therefore                                   |
| <b>4 take it for granted</b> (id) | d changed behavior in response to a new situation          |
| <b>5 thus</b> (adv)               | e keep   |
| <b>6 protection</b> (n)           | f people who lived a long time before now                  |
| <b>7 preserve</b> (v)             | g to expect something always to happen in a particular way |
| <b>8 warmth</b> (v)               | h safety   |

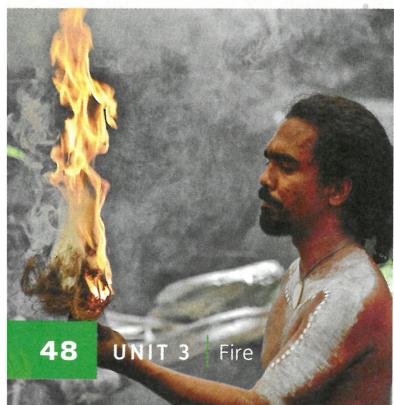
**2** Complete the sentences with the words in bold from Exercise 1.

- 1 Like drying and freezing, smoking meat helps to \_\_\_\_\_ it.
- 2 My \_\_\_\_\_ came from Scotland, but my family has lived in the USA for 200 years.
- 3 We know that we are lucky to have easy access to good medical care. We do not \_\_\_\_\_.
- 4 For traditional people, fire acted as a form of \_\_\_\_\_ from dangerous animals or enemies.
- 5 The opposing sides held very different opinions and expressed them freely, \_\_\_\_\_ the debate soon became heated.
- 6 Many traditional healing practices have been \_\_\_\_\_ modern life. For example, healers use electricity instead of fire.
- 7 The lecture about the smoking ceremony \_\_\_\_\_ my understanding of Aboriginal customs and beliefs.
- 8 In the winter, I used to love walking into my grandparents' house and feeling the \_\_\_\_\_ of the fire.

### Activating prior knowledge

### B BEFORE YOU LISTEN

- 1 Work with a partner. Look at the three photos of healing practices and describe what you see.
- 2 How might these activities be good for people's health?
- 3 Have you tried any of the activities in the photos?



## C GLOBAL LISTENING

**1** **3.1** Listen to *The healing power of fire*. Select the sentence that gives the main idea of the whole presentation.

- a Many of the traditional healing practices used by our ancestors have been lost.
- b Fire is the source of the heat used in traditional healing practices that continue until today.
- c In the past, fire therapy was practiced by many ancient cultures, but this type of therapy is rarely used anymore.

**2** **3.1** Listen to *The healing power of fire* again. Number the topics in the order they are discussed. One topic is not mentioned.

- a Meaning of sauna
- b The origin of hot-stone therapy
- c Evidence concerning the healing characteristics of smoke
- d The dangers of sitting in a sauna
- e Ancient uses of fire
- f The steps in an Aboriginal smoking ceremony
- g Using hot rocks to treat pain

Listening for main ideas

## GLOSSARY

### bacteria (n)

microorganisms that consist of a single cell

**massage (v)** the action of squeezing someone's body to reduce pain in their muscles or to help them relax

**spine (n)** the row of bones down the middle of the back



**D CLOSE LISTENING**

Listening for details

- 1**  **3.1** Listen to *The healing power of fire* again. Complete the sentences with the missing words or numbers.

- 1 Humans discovered how to use fire more than \_\_\_\_\_ years ago.
- 2 Smoking ceremonies using the \_\_\_\_\_ bush are still practiced among Aboriginal people.
- 3 A study in India showed a \_\_\_\_\_ % decrease in bacteria in the air.
- 4 Hot stones for healing were originally used in \_\_\_\_\_.
- 5 The word sauna comes from the \_\_\_\_\_ language.

Listening to distinguish facts from opinions

In lectures, presentations, and discussions speakers use a combination of facts and opinions to present their ideas.

Facts are statements that are known to be true or can be proved. Listen for the following signals to identify facts:

*Scientists have demonstrated that ... / According to research by ...*

*These findings confirm that ... / Scientists have recently discovered that ...*

Opinions are someone's thoughts or beliefs. Listen for the following signals to identify opinions:

*Researchers claim that ... / Scientists argue that ... / Some consider ....*

*In my view ... / It seems that ... / Many people suggest that ...*

Distinguishing between facts and opinions will help you better evaluate the ideas and arguments being presented.

- 2**  **3.2** Listen to some extracts from *The healing power of fire* again. Complete the sentences with two or more words.

- 1 Recently, evidence \_\_\_\_\_ that the smoke from plants used in smoking ceremonies has anti-bacterial and anti-fungal properties.
- 2 \_\_\_\_\_, hot stone therapy has a lot of benefits. For example, the stones can help to relieve pain, reduce stress, and improve sleep for patients with a condition called fibromyalgia.
- 3 \_\_\_\_\_ that sitting in a sauna regularly has medical benefits including a reduced risk of heart attacks.
- 4 Personally, I never set foot in them because \_\_\_\_\_ they're just too hot.

- 3** Work with a partner. Decide if the sentences in Exercise 2 are facts or opinions.

**E CRITICAL THINKING**

- 1 What did the speaker mean when he said that the discovery of how to make and preserve fire was a turning point in history?
- 2 Summarize the evidence to support each of the three examples of healing with fire. Do you think the evidence is strong or weak?
- 3 What other examples can you give of using fire for healing?

**ACADEMIC SKILLS****COHESION**

*Cohesion* means that the parts of a lecture or presentation are connected in a way that makes it easy for listeners to follow. When a lecture is cohesive, you can more easily take notes on the information you hear. Here are some common techniques that speakers use to create cohesion.

- Signal words: These are the words and phrases that show relationship and movement from topic to topic. Common examples are *First ... / Next ... / Another ... / Finally ...*
- Repetition of key words: This technique helps listeners keep the topic in mind at all times.
- Synonyms: Instead of repeating key words, speakers often paraphrase or use synonyms instead.
- Related words: Listen for words from the same word family, such as *heat* and *hot*.
- Pronoun reference: After mentioning a noun once, speakers will usually refer to it again using a pronoun; for example, “*The practice ... , It ...*”; “*... wet, steamy smoke ... , This smoke ...*”

**1 Work with a partner. Read an extract from *The healing power of fire*. Identify and discuss examples of the cohesive devices above.**

Hi. I'm going to talk about smoking ceremonies in traditional cultures, especially in Australia and North America. Now, when I say smoking, you probably think immediately about tobacco. But the practice I am talking about is different. Aboriginal people in Australia, for example, use the time-honored smoking ceremony for the purpose of healing or cleansing a house or person. The ceremony follows a particular sequence. First, leaves from the emu bush are burned over a fire, which then releases a sort of wet, steamy smoke. Next, this smoke is inhaled or exposed to a sick person's body. Similar ceremonies using other plants are performed in other cultures, where some people believe that smoke from a fire creates a sort of protection for guests.

**2  3.3 Listen to another extract from *The healing power of fire*. Write one example of each of these cohesive devices.**

Signal words \_\_\_\_\_ Repetition \_\_\_\_\_ Synonyms \_\_\_\_\_

Related words \_\_\_\_\_ Pronoun reference \_\_\_\_\_

**3 Work with a partner. Compare your answers to Exercise 2. Share the words or phrases you heard for each cohesive device.**

## FOREST FIRES: FRIEND OR FOE?

### A VOCABULARY PREVIEW

**1** Read the sentences. Match the words in bold with the correct definitions.

- 1 The forest fire was the largest **natural disaster** in the country's history.
  - 2 The fire was started **accidentally** when a man dropped his cigarette.
  - 3 The **destruction** caused by the fire was shocking.
  - 4 When a fire **breaks out**, the first response is to put it out.
  - 5 When the wind blew, it **spread** the seeds of the plant.
  - 6 Removing dead trees **lowers** the risk of a big fire.
  - 7 The **inner** part of the tree was alive, but the outer part looked dead.
  - 8 Lightning strikes **cause** around 10% of forest fires in the USA.
- a (v) to reduce something in strength, amount, degree
  - b (n) an event in nature that kills or injures a lot of people
  - c (n) the damage caused to something such that it can't be used again
  - d (adj) on the inside of something
  - e (v) to make something happen
  - f (adv) by mistake, not on purpose
  - g (v) to start suddenly (usually a fire, war, or disease)
  - h (v) to move something so it covers a large area

**2** Complete the sentences with the words in bold from Exercise 1. Change the form if necessary.

- 1 If a fire starts to \_\_\_\_\_, the situation can quickly become dangerous.
- 2 Forest fires have \_\_\_\_\_ across the southeastern USA.
- 3 Locals were shocked by the \_\_\_\_\_ to public property in the area.
- 4 The 2011 tsunami was one of the worst \_\_\_\_\_ in recent history.
- 5 The \_\_\_\_\_ city was largely unaffected by the storm.
- 6 They were given six months' detention for \_\_\_\_\_ starting the fire.
- 7 The tsunami was \_\_\_\_\_ by a huge earthquake off the coast.
- 8 Rain \_\_\_\_\_ the risk of forest fires.

### B BEFORE YOU LISTEN

#### Activating prior knowledge

Work with a partner. Discuss the questions.

- 1 Fire is sometimes called a foe. A foe is an enemy. How would you define an enemy?
- 2 Fire is also sometimes called a friend. What are the characteristics of a friend?
- 3 Why might fire be considered both a foe and a friend?

## C GLOBAL LISTENING

### 3.4 Listen to *Forest fires: friend or foe?* and choose the topics mentioned.

- the main reason a forest fire is called a “foe”
- a scientific description of what a fire needs to burn
- some causes of forest fires
- the usual response to a forest fire
- regions in the world with the most fires
- the factors that make fires spread
- several benefits of a forest fire
- the process of a new forest growing after a fire

Listening for main ideas

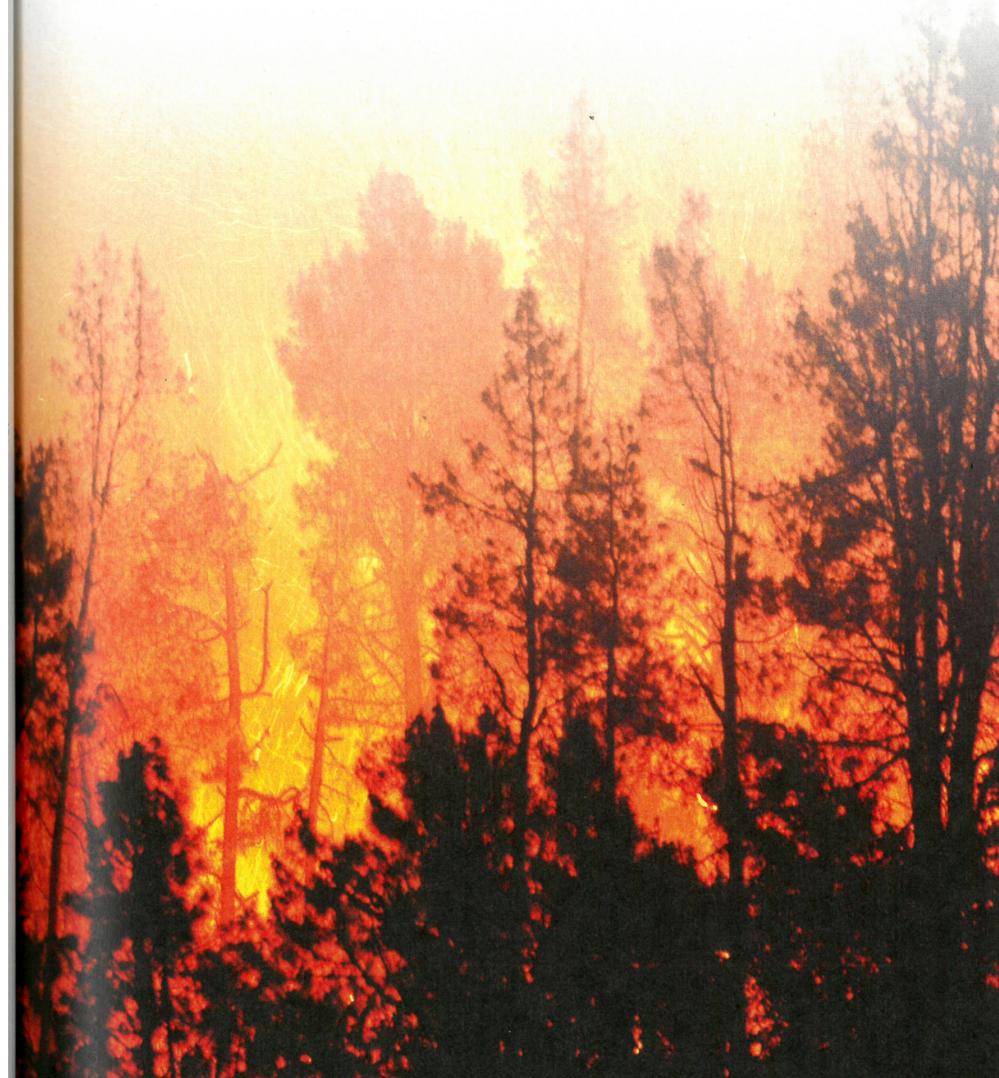
## GLOSSARY

**cone (n)** the fruit of a pine or fir tree

**detect (v)** to discover or notice something

**ecosystem (n)** all the plants and animals in an area, and the way they interact with each other and the environment

**sensor (n)** a piece of equipment that identifies physical changes (e.g., heat, light, etc.)



**D CLOSE LISTENING**

Listening to understand  
a sequence of events

A sequence is a series of related events that happen in a specific order.

The following words and phrases are used to describe the order of events:  
*first, second, third, then, next, later, after / before that, after that happens, afterward, eventually, finally, last.*

Note that sometimes a speaker doesn't present events in the order they actually happened. Therefore, it's important to pay attention to these signal words to help you keep track of the correct sequence.

**1**  **3.4** Read the sentences. Then listen to *Forest fires: friend or foe?* again and decide if the sequences described are correct or incorrect.

- 1 If someone drops a burning cigarette, a fire burns out of control, and then spreads.
  - 2 A fire clears away dead trees and plants, then new plants can grow.
  - 3 When the banksia bush burns it releases seeds. Then its cones open.
  - 4 After a fire starts, the blue beetle senses the fire, flies into the burning area, and lays its eggs while the fire is burning. Eventually the eggs are burned by fire in the trees.
  - 5 After a fire, the ecosystem is restored because first the fast-growing plants start to grow, then the trees, and finally the slower-growing plants.
- 2** Work with a partner to make the sequences correct. Add any other details you can remember.

**E CRITICAL THINKING**

Work in a group. Discuss the questions.

- 1 Should forest fires be put out quickly or allowed to burn? Discuss the pros and cons.
- 2 What are possible long-term benefits of other natural disasters?

**CRITICAL THINKING****Distinguishing between causation and correlation**

Causation and correlation are both terms used to describe relationships between events. However, their meaning is different.

**Causation** describes the relationship between cause and effect (**A** causes **B**):

*A huge forest fire broke out and destroyed over 1,200 homes in the area.*

(**A** = cause) > (**B** = effect)

**Correlation** describes a relationship between two things that change at the same time. For example:

*Between 1996 and 2010, sales of lemons in the USA increased, while the number of car accidents decreased.*

The two events are correlated because they happened at the same time, but this doesn't mean that one *caused* the other. There is no evidence to suggest that increased sales of lemons *caused* fewer people to crash their cars. It's more likely that the events are unrelated.

However, often there is a third factor that explains the correlation:

*Sales of ice cream and shark attacks both increase during the summer.*

These events are correlated, but there is no evidence to suggest that ice cream sales *cause* shark attacks. It's more likely that people buy more ice cream in the summer because it's hot. They also go to the beach more, which makes it more likely they will be attacked by a shark.

**1**  **3.5 Listen to an extract from *Forest fires: friend or foe?* Answer the questions.**

- 1** Have forest fires in the USA increased or decreased since the 70s and 80s? By how much?
- 2** How has the climate changed the areas where the fires occur?
- 3** Do these factors make it more or less likely that forest fires will break out?

**2 Work with a partner. Read the examples of correlation below and discuss what third factor might have caused both things to change.**

- 1** Forest fires and sales of sunglasses both increase at the same time.
- 2** The more cafés there are in a place, the higher the crime rate.
- 3** The more you weigh, the bigger your vocabulary is.
- 4** Students who pay for extra math classes often get lower test scores.

**3 Work with a partner. Discuss the questions.**

- 1** In the USA, new drugs are tested for up to 12 years to prove that they cause a positive effect. Why is this important?
- 2** Why do newspapers often choose dramatic headlines like, "*Eating X causes cancer,*" rather than "*Eating X and cancer are correlated*"?

## VOCABULARY DEVELOPMENT

**Synonyms**

Synonyms are words that have the same or similar meanings.

*He used water to **extinguish** / **put out** the fire.*

*Climate change is causally **linked** / **tied** to increased numbers of forest fires.*

*This is a **complete** / **total** disaster!*

*Before the controlled use of fire, our ancestors ate **raw** / **uncooked** food.*

A synonym can also be a phrase or expression, especially in idiomatic speech.

*to get burned*

*to be on fire*

*to burn someone up*

*to be fired up about something*

*to be burned out*

**1 Read each sentence. Circle the two synonyms of each word in bold.**

- 1 The controlled use of fire was a **turning point** in human history.
  - a critical moment      b crossroads      c disaster
- 2 The controlled use of fire **dramatically** changed daily life in so many ways.
  - a slightly      b substantially      c noticeably
- 3 Cooking gave people a lot more food **options** than in the past.
  - a selections      b observations      c alternatives
- 4 Food could be **stored** and used later.
  - a kept      b saved      c avoided
- 5 Do the benefits of a forest fire **justify** all the destruction?
  - a rationalize      b contribute to      c excuse
- 6 People could **Maintain** a better diet for themselves and be healthier.
  - a to continue with      b to keep up      c to consider

**2 Replace the words in bold with a synonym from below.**

burns me up    burned out    fired up    got burned    on fire

- 1 I **was cheated** at the market—these jeans are fake!
- 2 He always keeps me waiting when we go out. That **makes me really angry**!
- 3 He's really **excited** about playing on Saturday.
- 4 Yousef is **unstoppable**—that's his fourth 3-pointer in a row.
- 5 Lack of motivation could be a sign you're **exhausted**.

## ACADEMIC WORDS AND IDIOMS

### 1 Match the words and idioms in bold with the correct definitions.

- 1 **Bear in mind** that traffic will be heavy, so be sure to leave earlier than usual.
  - 2 US researchers say CCTV cameras could help **detect** forest fires earlier.
  - 3 After weeks of heavy rain in the area, new plants began to **emerge**.
  - 4 Firefighters **occupy** themselves between fires by watching TV.
  - 5 Sequoia trees **release** their seeds during forest fires.
  - 6 The family worked hard to **restore** the house after it was damaged by fire.
  - 7 Since she saw a snake there, Hila has been afraid to **set foot in** the woods.
  - 8 The **sequence** of events that led to the fire remains unknown.
  - 9 Forest fires need three things to burn: fuel, oxygen, and a heat **source**.
  - 10 The smoke from the forest fire was **visible** for a long distance.
- a (v) to appear or become known  
 b (adj) that can be seen  
 c (v) to let something come out of a place it has been kept or trapped  
 d (v) to bring back a situation that was there before  
 e (v) to notice something, especially when it isn't obvious  
 f (n) the order that things happen or should happen  
 g (v) to fill your time or keep busy  
 h (id) take into consideration  
 i (n) where something comes from  
 j (id) enter

### 2 Complete the sentences with the words and idioms in bold from Exercise 1.

- 1 It's important to have a device to \_\_\_\_\_ smoke or fire at home.
- 2 The sun is a \_\_\_\_\_ of heat for the Earth.
- 3 The city is raising money to \_\_\_\_\_ historic buildings after the fire.
- 4 In hot weather, people \_\_\_\_\_ themselves with indoor activities.
- 5 Visitors should \_\_\_\_\_ that it is dangerous to feed wild animals.
- 6 Studies have \_\_\_\_\_ suggesting that most fires are avoidable.
- 7 In ceremonies using fires, the steps must be performed in \_\_\_\_\_.
- 8 Fires \_\_\_\_\_ large amounts of CO<sub>2</sub> into the atmosphere.
- 9 Even though the fire was out, the smoke from it was still \_\_\_\_\_.
- 10 After that awful meal, I will never \_\_\_\_\_ in that restaurant again.

### 3 Work with a partner. Discuss the questions.

- 1 Do you think it's important to restore historic buildings?
- 2 How do you occupy your time while waiting for a flight?
- 3 What steps would you take if you detected smoke in a building?

## ACADEMIC IDIOMS

### BEAR IN MIND

The verb *to bear* means, among other things, to carry something. If you tell someone to bear something in mind, you are literally reminding them to carry a thought in their head—in other words, to remember or consider something important.

*Bear in mind that the doors will be locked at 8 p.m.*

## SPEAKING MODEL

You are going to learn about using stance markers and intonation to express feelings and attitudes, and phrases for changing a conversation topic and returning to it. You are then going to use these to hold an informal class debate about the ways fire is a positive and negative part of life.

### A ANALYZE

**Work with a partner. Read the model and answer the questions below.**

**Yuki:** Frankly, it's clear to me that there are so many benefits of using fire. For example, think about all the ways fire is used to manufacture the things we use. Fire is also used to cook and preserve food that we can buy at the store. Fires are a source of heat. They provide protection and warmth. I could go on about all the benefits.

**Guy:** Well, to be honest, I have to disagree with you. Let me explain why. According to the report we heard, fires can be natural disasters and cause a lot of destruction. Fire destroys homes and buildings. Fires can injure people.

**Yuki:** Speaking of injuries, that reminds me of another benefit. Fire is used in lots of ways in hospitals and in doctors' offices; for example, to make instruments sterile.

**Guy:** Yes, of course you have a good point there, but back to what I was talking about, bear in mind that fires do a lot of harm. Forest fires can release a lot of heat. They kill animals and plants. The smoke affects visibility. Birds have a hard time flying.

**Yuki:** As a matter of fact, while it's true that forest fires destroy a lot of trees every year, we know that fires also help keep forests in balance.

**Guy:** As I was saying before, fires do a lot of harm, especially if they spread into towns and burn houses, and historic buildings. Houses can be replaced, but old, historic buildings can't.

**Yuki:** Sorry, but that reminds me of another benefit. Sometimes, when a fire spreads through a town, it can help the town get rid of unsafe, old buildings that people are afraid to set foot in. It might burn trash and old trees. Then, when the fire is gone, the town can make a fresh start. It's been cleaned up. Sounds good to me.

**Guy:** Anyway, I'm not sure it's as simple as that. Sometimes, no one detects a fire in time and many people are affected.

- 1 What is Yuki's attitude toward who will win the debate?
- 2 What phrase does Guy use to show disagreement with this opinion?
- 3 What phrases are used to change the topic?
- 4 What phrases are used to return to the topic?

### B DISCUSS

**Work with a partner. Discuss which speaker you think presents the strongest position. Explain your reasoning.**

## GRAMMAR

**Using stance markers**

Stance markers are used by speakers to express their attitude to the ideas they are presenting. They also help us know if an idea is an opinion or a fact. We can express stance with:

- single adverbs

*Frankly, that seems like a huge benefit.*

*Actually, there are many benefits. For example, ...*

- adverbial clauses and prepositional phrases. In order not to sound impolite, support your stance with facts:

*As a matter of fact, I didn't do the project alone. Hamid helped me.*

*To put it bluntly, I totally disagree with that idea. Let me explain why ...*

*To be honest, that isn't really an example of how fire helps us. Consider this example ...*

**1**  **3.6 Listen. For each dialogue, choose an appropriate response.**

- |   |  |                                     |
|---|--|-------------------------------------|
| 1 | a Frankly, it's too dangerous.           | b Actually, it's my favorite thing. |
| 2 | a Yeah, luckily it was late at night.    | b Actually, it's next week.         |
| 3 | a To be honest, I thought it was boring. | b Frankly, I'm not too worried.     |
| 4 | a Actually, I don't want to go.          | b Actually, I don't like it.        |

**2** Complete each dialogue with a stance marker. More than one choice is possible. Practice with a partner.

- A: That was an excellent restaurant. I'd definitely go there again.  
B: \_\_\_\_\_, I didn't like it at all. The service was awful.
- A: You did great on the exam. You must have studied all weekend for it.  
B: \_\_\_\_\_, I spent over three weeks preparing for it. I knew it would be difficult.
- A: I was worried I wouldn't be able to use this software, but \_\_\_\_\_, it's very easy to use.  
B: Yeah, I didn't have any problems with it either.
- A: \_\_\_\_\_, I don't think it's a good idea to go away for the whole weekend.  
B: Well, then how about just going out for one of the days?

## SPEAKING SKILL

## Changing the topic and returning to it

Sometimes in a conversation, you may want to change the topic briefly. This often happens when someone says something that reminds you of something else.

Changing the topic

*That reminds me.*

*Oh, by the way, ...*

*Speaking of ...,*

*Before I forget, I want to mention ...*

Returning to the topic

*Back to what we were talking about ... Let's get back to ... Anyway, ...*

*As I was saying before, ...*

During a debate in which you have limited time to present your ideas, try only to go off the main debate topic briefly, and then quickly return to it.

1  3.7 Listen and complete the sentences with the missing expressions.

- 1 OK, no problem. I'll meet you at the library at 7:30. \_\_\_\_\_, Mike was looking for you earlier.
  - 2 You asked me about the lecture you missed. Oh, \_\_\_\_\_, we have an exam next Friday.
  - 3 The first part of the lecture was clear. \_\_\_\_\_ talking about the last part. It was confusing.
  - 4 You asked about my biology class. \_\_\_\_\_ classes, have you decided what to take next term?
  - 5 Thanks for mentioning that article you found online. \_\_\_\_\_, does anyone know the answer to the second question?
  - 6 \_\_\_\_\_, there are several benefits we need to consider.
- 2 Work with a partner. Use the framework to practice going off topic briefly then returning to it.

## STUDENT A

Tell your partner what you want to do after college.

*I'm thinking about ...*

## STUDENT B

Respond, then change the subject.

*That sounds pretty interesting.*

*By the way ...*

## STUDENT B

Respond, then change the subject again.

*That does sound like a good plan.*

*That reminds me, ...*

## STUDENT A

Respond, then change the subject back to your plans after college.

*Oh, right. Anyway, as I was saying ...*

## PRONUNCIATION FOR SPEAKING

### Using intonation to express feelings and attitudes

For someone to understand your ideas, they need not only to understand the words, but the feelings behind them. How quickly you say something, how your voice rises and falls, the tone and the pitch, all communicate your feelings and attitudes. By paying attention to your own intonation, you will make it easier for others to understand the ideas you want to communicate.

**1**  **3.8 Listen to the same sentence said with three different intonations.**

Match the emotion with the sentence.

- 1 I heard about a forest fire that happened recently. \_\_\_\_\_
  - 2 I heard about a forest fire that happened recently. \_\_\_\_\_
  - 3 I heard about a forest fire that happened recently. \_\_\_\_\_
- a excited                      b afraid                      c disinterested

**2 Read each dialogue. Decide what intonation will best communicate the ideas.**

Practice with a partner.

- 1 **A:** There was a big fire not far from here yesterday.  
**B:** I know. I was totally scared it was going to spread this way.  
**A:** No kidding! We were lucky they were able to put it out so quickly.
- 2 **A:** Do you want to hear some terrible news?  
**B:** What happened? Tell me!  
**A:** There was a big fire in the building where my sister lives. She lost everything.  
**B:** That IS terrible!
- 3 **A:** Hey, look at this interesting chart about wildfires globally.  
**B:** Wow! I didn't know there were so many everywhere.  
**A:** Yeah, it's surprising how many fires there are annually!



## SPEAKING TASK

Debate whether fire does more harm than good.

### Brainstorm

Work in a group of four. Make a list of the many ways fire is part of life, both positive and negative.

In addition to what you learned in the unit, consider:

art	business	construction	manufacturing
natural disasters	medical treatment	emergencies	entertainment
injuries	trash removal		

### Plan

1 Divide your group into two pairs.

**Pair 1:** Discuss ways fire can be used to benefit our lives.

**Pair 2:** Discuss ways fire can harm us.

2 With your partner, make a list of at least four ideas you plan to cover.

3 For each idea on your list, discuss the details you want to include with your partner. Take notes. Then decide who will present each idea in the debate. Consider the stance markers and what tone of voice will best express your feelings and attitudes. Review the phrases to use to go off topic and return to the topic.

### Speak

Hold your debate. After each side presents, allow time for questions. Take brief notes on the other side's ideas.

### Review

Work as a class to discuss the results of the debates. Choose one member of your group to summarize the main points presented in your debate. Compare ideas.

### Reflect

Work with a partner. Discuss the questions.

- 1 Do you think the controlled use of fire is the biggest turning point in human history?
- 2 Do you think there will ever be a time where fire isn't used in society?

**WORDLIST**

\*\*\* very frequent \*\* frequent \* not frequent

**Vocabulary preview**

accidentally (adv) *	destruction (n) **	natural disaster (n)	take something for granted (id)
adapt to (v) **	expand (v) ***	preserve (v) ***	thus (adv) ***
ancestor (n) **	inner (adj) ***	protection (n) ***	warmth (n) **
break out (phr v)	lower (v) **	spread (v) ***	
cause (v) ***			

**Vocabulary development**

burn up (phr v)	fired up (phr v)	maintain (v) ***	store (v) ***
burned out (phr v)	get burned (phr)	on fire (id)	turning point (n)
dramatically (adv)	justify (v) **	option (n) ***	

**Academic words and idioms**

bear in mind (id)	occupy (v) ***	sequence (n) ***	source (n) ***
detect (v) **	release (v) ***	set foot in (id)	visible (adj) **
emerge (v) ***	restore (v) ***		

**ACADEMIC WORDS AND IDIOMS REVIEW**

Complete the sentences using the words and idioms below.

bear in mind detect emerges occupied releases set foot in

- 1 The device can \_\_\_\_\_ extremely small changes in temperature.
- 2 My brother is a private person. He gets annoyed if anyone even tries to \_\_\_\_\_ his room.
- 3 Burning fossil fuels \_\_\_\_\_ large amounts of CO<sub>2</sub> into the air.
- 4 After several weeks, a butterfly \_\_\_\_\_ from the cocoon.
- 5 It's a good way to keep the children \_\_\_\_\_ for an hour or so.
- 6 If you decide to shop at the outdoor market, \_\_\_\_\_ that they only take cash.

**UNIT REVIEW**

Listening 1	<input type="checkbox"/> I can distinguish between fact and opinion.
Listening 2	<input type="checkbox"/> I can listen for the sequence of events.
Academic skill	<input type="checkbox"/> I can use cohesive devices.
Vocabulary	<input type="checkbox"/> I can use synonyms of words.
Grammar	<input type="checkbox"/> I can use stance markers.
Speaking	<input type="checkbox"/> I can change the topic and return to it.

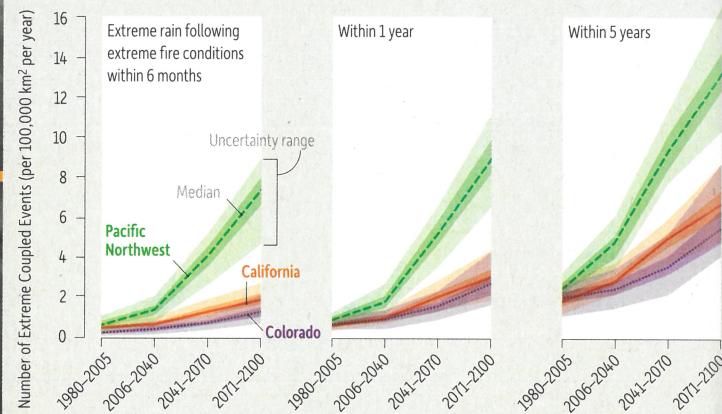
# WILDFIRES FOLLOWED BY RAIN WILL BECOME MORE COMMON

Climate change tends to bring out the worst in the weather: extreme cold or heat, rain or fire. A new study found that the warming atmosphere increases the likelihood that a wildfire in the Western US will be followed by intense rainfall. This confluence of events raises the risk of landslides and flash floods.

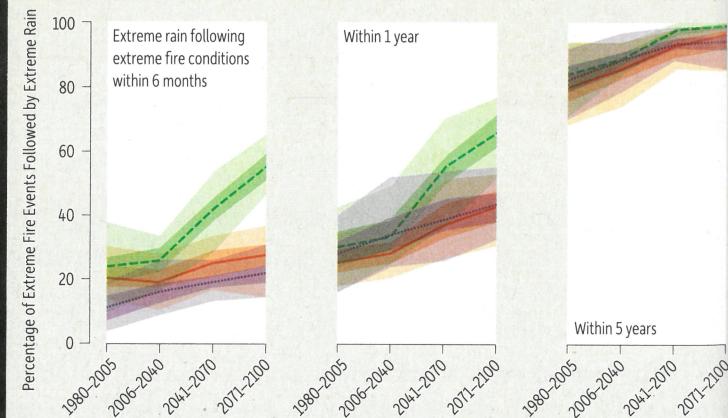
"Once you've had a wildfire burn through, you kill off all the vegetation, and you don't have any root structures there holding the soil in place, so it's a lot more vulnerable," says University of California, Santa Barbara, climate scientist Samantha Stevenson, who was a co-author on the study.

The fires aren't causing the storms, but the same rising temperatures that lead fires to become more severe allow the atmosphere to carry more moisture, causing rain events to dump more water quickly. "We're talking about superstrong rainstorms, the 99.9th percentile," Stevenson says.

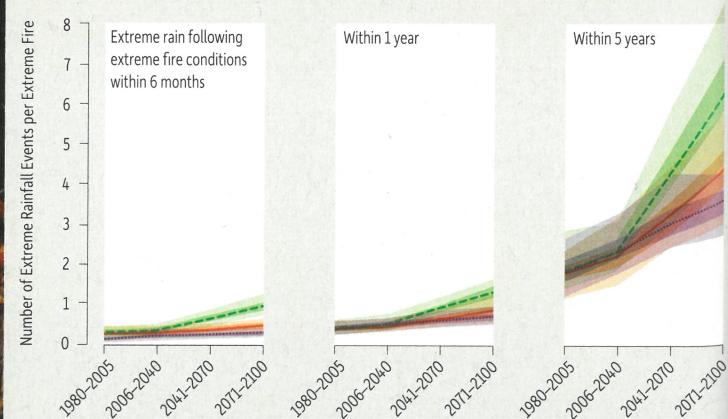
The absolute number of extreme fire events followed by extreme rainfall is projected to rise.



The percentage of all extreme fire events that are followed by extreme rainfall is also expected to climb.



The absolute number of extreme rainfall events following each extreme fire event will also go up.



## GLOSSARY

**confluence (n)** the process of two or more things becoming more closely connected

**flash flood (n)** floods caused by sudden intense rain

**landslide (n)** when large amounts of rock and soil fall down hills and mountains

**likelihood (n)** the chance that something might happen

**moisture (n)** tiny drops of water in the air

**root (n)** the part of a plant that holds it in the ground (and holds the soil together)

**vulnerable (adj)** at risk



## INTEGRATED SKILLS

You will read a text about extreme weather and analyze a diagram. You will then hear a short audio related to the topic. There are some questions to help you with language and the main ideas. Finally, you will summarize the points in both texts.

### A CLOSE READING

Read the *Scientific American* text about extreme weather and look at the diagram. Complete the summary with words and phrases from the article and diagram.

- 1 New research studies the confluence of two events: \_\_\_\_\_ followed by \_\_\_\_\_.
- 2 Superstrong rainstorms are defined as one in 1,000 rainstorms, i.e., those in the \_\_\_\_\_.
- 3 The colored lines in the diagrams refer to three parts of the \_\_\_\_\_: California, Colorado, and the Pacific Northwest.
- 4 The dotted line shows the \_\_\_\_\_ prediction. The pale colors show the range of \_\_\_\_\_ about these predictions.
- 5 The three graphs in each chart show the relationship between \_\_\_\_\_ and (later) \_\_\_\_\_.
- 6 The number of extreme rainfall events after each extreme fire can be seen in the \_\_\_\_\_ set of graphs.

### B READING ANALYSIS

Work with a partner. Discuss the questions.

- 1 How does wildfire lead to more landslides?
- 2 What is the cause of the confluence? How does it work?

### C CLOSE LISTENING

2 Listen to a podcast about the connection between sea ice reduction and wildfires. Number the sentences (a–e) in the order they are mentioned.

- a Less summer sea ice leads to warmer oceans, which release heat into the air in autumn and early winter.
- b There's a teleconnection (long-distance connection) between summer declines in the Arctic sea ice and autumn wildfires over the western US.
- c Hot air descends to the ground, creating favorable conditions for wildfires.
- d Rising Arctic air causes a low-pressure counter-clockwise vortex (air going around in a huge circle).
- e That low pressure moves south, pushes the polar jet stream off its normal course, and forms a high-pressure clockwise vortex over the western US.

### D LISTENING ANALYSIS

Work with a partner. Discuss the questions.

- 1 How is Hailong Wang's research different from previous studies?
- 2 What is Hailong Wang planning to study next?

### E INTEGRATED SPEAKING

Work with a partner. Summarize the points made in the podcast, text and graphs to explain how changes in levels of Arctic sea ice affect wildfires and flooding in the US. Write between 200 and 275 words. Include:

- The Arctic sea ice reduction–wildfire connection
- Connections between wildfires, superstrong rainstorms, landslides, and flash floods
- The impact of climate change on all these issues
- Predictions for the future