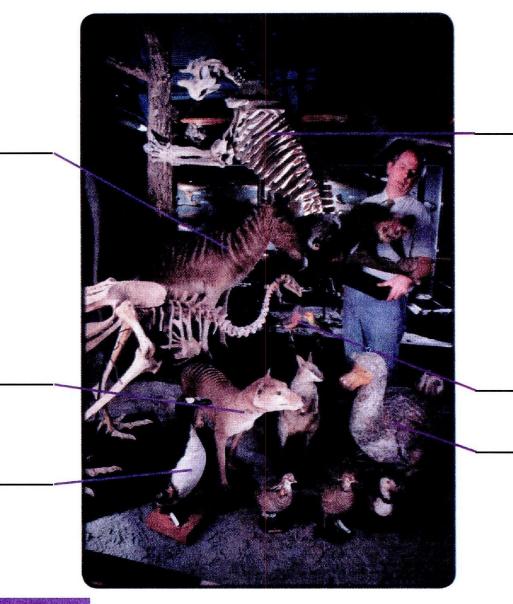
Disappearing Animals 3



Getting Ready

Discuss the following questions with a partner.

- 1 Match these names with the animals in the picture.
 - a great auk b thylacine (Tasmanian tiger) c quagga
 - d dodo e giant ground sloth
- f passenger pigeon
- 2 Have you heard of any of these animals before? What do you know about them?
- 3 What do you think these animals have in common?

UNIT 3

CHAPTER 1 Endangered Species

Before You Read

Valuing Wildlife

A What are some reasons for protecting wildlife? Rank the following from 1–5 (1=most important).

 They make the world a more beautiful place.
 They are valuable in the research and creation of medicines.
 They have rights, and humans must respect them.
 They are important to science and our understanding of the
Earth.
 They are essential to keeping nature and the ecosystem in
balance.

B Discuss your answers with a partner.

Reading Skill

Identifying Meaning from Context

To guess the meaning of an important but unfamiliar word in a passage, try the following strategy: First, look at the different parts of the word to see whether there are any clues to its meaning. Second, notice the word's part of speech. Third, look at the words and sentences around the new word for synonyms, antonyms, or a definition.

A Read the following extract from the article on the next page. Then choose the best definition for the word in blue.

No animal species can survive indefinitely on Earth. Centuries ago, species went extinct from natural causes, for example, they were unable to adapt to bad weather and other hard conditions. However, animals are now dying out faster than ever because of human activity.

The word indefinitely means

- a with great difficulty
- b without an end or limit
- c with an aim or purpose
- Now scan the article for the words in blue. Read the sentence containing the word and some of the surrounding sentences. Then choose the best definition.

1 In line 30, the word culprits means					
	a competitors	b victims	С	causes	
2	In line 53, the word int				
	a purposely	b cruelly	C	innocently	
3	In line 59, the word ov				
	a destroy	b fight with	C	support	

C Read the entire passage carefully. Then answer the questions on page 43.



Endangered Species

No animal species¹ can survive **indefinitely** on Earth. Centuries ago, species went extinct from natural causes, for example, they were unable to adapt to bad weather and other difficult conditions. However, animals are now dying out faster than ever because of human activity. It is estimated that, until the 18th century,

one species disappeared from the Earth every four years. By the 19th century, this had increased to one species per year. By 1975, it was 1,000 species per year, and today animals are disappearing at the alarming rate of more than 40,000 species per year.

The International Union for Conservation of Nature (IUCN) has created a number of categories that describe the danger level of animal species.

- Species that are completely gone are called extinct, for example, dinosaurs and the dodo.
- Species that only live in zoos or on farms, etc., fall into the category extinct in the wild. One example is the Wyoming toad.
- A species is labeled critically endangered when 15 its numbers are dangerously low. This means it is in **imminent** danger of dying out completely and needs protection in order to survive. The Siberian tiger and the snow leopard are two examples.
- Species that have a high, but not immediate, risk 20 of dying out are simply labeled endangered. The giant panda is a famous example.

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- Wyoming toad A vulnerable species is in less trouble than an endangered one, but its numbers are still markedly declining. The cheetah and the African elephant are vulnerable species.
- Animal species that are considered of least concern aren't particularly endangered and have high numbers of individuals.

¹ A **species** is a group of animals or plants that are very similar and can reproduce together.

There are many factors that can cause an animal or plant species to become endangered, and one big one is the destruction of their habitats. Deforestation and soil, air, and water pollution are usually the main **culprits**. For example, the population of critically endangered Sumatran orangutans is now less than 10,000 on their home island of Sumatra, Indonesia, due to deforestation and farming.



A policeman in India showing elephant tusks taken from poachers.

Another cause of endangerment is from humans **exploiting** wild animals. Uncontrolled hunting of whales in the last century, for example, resulted in many whale species becoming critically endangered. The high demand for animal parts stems from their use in certain foods or medicines or their value as decorative objects. For example, the ivory tusks of elephants are used to make jewelry, and the

price is high enough that people risk being arrested and jailed to go after these animals.

Introducing a non-native species to an environment can also cause species endangerment. A native species is one that develops naturally in a particular area and has done so for a long time. A non-native species might be introduced into a new environment by humans, either intentionally or by accident. The brown tree snake, unknowingly brought by cargo ships² stopping at Guam, has managed to kill off 10



- of the 11 species of birds native to the island's forests. In Florida, large pet snakes such as the anaconda and the python have been released into the large Everglades swamp. The snakes have thrived in their new environment, and now compete with and may soon **overwhelm** the swamp's alligators.
- Organizations such as the World Wildlife Fund and the IUCN try to raise awareness of threatened animals and plants. These organizations collaborate with government agencies to save threatened or endangered species and to make new laws that will protect them. But to really protect plant and animal species now and in the future, the public needs to be educated on the value of keeping these species alive.

² A **cargo ship** is any sort of ship or vessel that carries goods and materials from one place to another.

A Choose the correct answer for the following questions.

- 1 According to the passage, what happened between the 18th century and now?
 - a The amount of human activity increased.
 - **b** Animals were less able to adapt to the weather.
 - c More animals started dying from natural causes.
- 2 Why have many whale species become endangered?
 - a Their habitat is being destroyed.
 - **b** They have been hunted in great numbers.
 - c A non-native species has been introduced to their environment.
- 3 Which is NOT mentioned as a cause of species endangerment?
 - a spread of diseases
 - **b** habitat destruction
 - c unrestricted hunting
- 4 Which animal is native to the Everglades swamp?
 - a anacondas
- **b** pythons
- c alligators
- 5 What is the main idea of the final paragraph?
 - a Governments and organizations must work together to be effective.
 - **b** The most important thing is to raise awareness and educate people.
 - Laws are needed to protect these endangered species.
- B Read the following sentences about various animals. Write whether the animal is extinct, extinct in the wild, critically endangered, endangered, vulnerable, or of less concern. Then discuss your answers with a partner.
 - 1 There were about 100,000 koalas in 2008, but their numbers have noticeably declined due to environmental changes.
 - 2 Lonesome George, the last Pinta Island tortoise, died in 2012.
 - 3 As of October 2012, only 190 Hawaiian Crows remain, in two breeding facilities run by the San Diego Zoo.
 - 4 The minke whale lives in almost all of the world's oceans and is the most commonly sighted species in whale-watching expeditions.
 - 5 There are so few Visayan warty pigs in the wild that conservationists are now trying to breed them in zoos.

C Discuss the following questions with a partner.

- 1 Why do you think the IUCN creates categories for animals?
- 2 Do you think most people are concerned about endangered species? Why, or why not?

Reading Comprehension Check Your Understanding



Vocabulary Comprehension Odd Word Out

A Circle the word or phrase that does not belong in each group.

The words in blue are from the passage.

1	inadequate	overwhelming	lacking	scarce
2	indefinite	unlimited	not defined	distinct
3	victim	culprit	suspect	criminal
4	critical	momentary	vital	key
5	strikingly.	markedly	noticeably	secretly
6	imminent	approaching	departing	oncoming
7	mistakenly	intentionally	accidentally	unknowingly
8	wipe out	destroy	exploit	finish off

B Complete the following sentences using the words in blue from A. You might have to change the form of the word.

1	You will notice Lars by his height; he is taller than his
	classmates.
2	The stress was so that he broke down and cried.
3	Due to the hurricane, school has been cancelled
	tomorrow for two days.
4	One cause of global warming is production of greenhouse gases; the
	other big is smoke from vehicles.
5	Heleft the dinner early so he would not have to pay the
	bill.
6	Some people feel we are at a(n) point in history when it
	comes to global warming. We need to take action before it's too late.
7	The tour has been delayed because the drummer left
	the band.
8	He may be willing to pay for your meals, but you shouldn't
	the situation and ask him out for dinner all the time!



A	Use en- or em- to complete the words in the sentences below. Discuss your answers with a partner.				
	1 2 3 4	James was convinced that his new haircuthanced his good looks. Educationpowers people to make the right choices. The couple stopped arguing andbraced each other. The scientist used a microscope tolarge the image of the cells.	In thi you r		
	5	Rupert had the date of his weddinggraved on the inside of his wedding ring.	begii en-, into		
B Complete the following sentences using the correct form of the en- words in the box. You may use a dictionary to help you.					
		enclose embed enable embody enforce			
	1	The CEO of a company needs to all the values that			

3 There are bullets _____ in the wall as evidence of the war. 4 When you mail the warranty card to the electronics company, be sure to

5 This new password feature will ______users to protect

____ a copy of your receipt.

the company stands for.

he or she will never have control.

2 If the teacher doesn't ____

sensitive information.

Motivational Tip: Are you applying yourself? Are you giving your best effort? When we are honest with ourselves, we often recognize that we could be doing more to achieve our best. On a scale of 1-10 (1 = low effort, 10 = high effort) where would you rate yourself in terms of applying your effort during this unit? If your effort falls between 7-10, congratulations, you are doing well. If your effort falls below 7, what could you do to apply yourself more?

_____ classroom rules from day one,

Vocabulary Skill

efixes en- and em-

is chapter read the word angered, which ns with the prefix meaning (to put) or to cover. When comes before b or changes to em-.

UNIT 3

CHAPTER 2 Bring Back the Woolly Mammoth?

Before You Read

Animal Conservation



A Answer the following questions.

- 1 What is happening in the image above?
- 2 What do you know about animal conservation? What are some methods of animal conservation?
- 3 Does your country have any endangered species? What is the government doing to save them?
- B Discuss your answers with a partner.

Reading Skill

Identifying Main Ideas within Paragraphs

Many paragraphs are constructed around a main idea. This idea is usually presented in a sentence within the paragraph. Quickly finding the main idea will increase your speed of reading and comprehension.

A Skim the passage on the next page quickly, then read the following sentences. Circle the main idea for each paragraph.

Paragraph 2

- a The species mentioned in the paragraph lived in different times.
- **b** There are a number of extinct species that scientists want to revive.

Paragraph 3

- a There are two possible ways to go about reviving extinct species.
- **b** Scientists can use sex cells to revive extinct animals.

Paragraph 4

- a Cloning has been done but only to a very small extent.
- **b** Quite a few problems still prevent species from being revived.

Paragraph 5

- a It may be ethically wrong to bring back extinct species.
- **b** A single individual of a revived species would have no parents.
- **B** Discuss your answers with a partner. Then skim the passage to check if your answers are correct.
- Read the entire passage carefully. Then answer the questions on page 49.

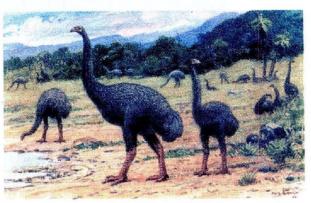
Bring Back the Woolly Mammoth?

Scientists estimate that throughout the course of Earth's history, more than a billion different species of animals and insects have existed. Today, there are only about 30-50 million species left, according to the World Animal Foundation. That means that for every species living on Earth today, 20 more are already extinct. Scientists study extinct species to get a better understanding of

2

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the past. In addition to studying what these species might have been like when they were alive, some scientists are interested in the possibility of seeing some of them walk the Earth again.



the New Zealand moa

There are a number of serious proposals to try to **revive** extinct species. Some animals on this list include: the woolly mammoth (an elephant-like creature that wandered the plains of Siberia), the moa (a giant flightless bird from New Zealand), the thylacine (also known as the Tasmanian

tiger because of the dark stripes down its back), and the bucardo (a mountain goat from Spain). These animals had very little in common and in most cases lived eras apart. The woolly mammoth, for example, died many thousands of years ago while the bucardo became extinct only around the year 2000. But all these species lived at the same time as humans, and humans have been largely responsible for their destruction. So it seems somehow fitting that we are now thinking of reviving them.

Scientists have proposed reviving an extinct species using two possible methods. In the first method, sex cells (sperm or eggs) are obtained from the extinct animal and are used to fertilize sex cells of a closely related living relative in a laboratory. For example,

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sperm from a woolly mammoth could be used to fertilize an egg from a modern-day elephant. The fertilized egg would then be placed in the live female elephant where it would live and grow until it is ready to be born. The second method involves a type of cloning. In cloning, the DNA of one individual replaces the DNA of another. In the woolly mammoth example, scientists could **inject** DNA from a mammoth into an egg cell from an elephant. The cloned egg cell would then be placed into a living elephant and allowed to develop in the same way as a fertilized egg.

- But some scientists believe species

 revival will never happen because both
 methods are problematic. One of the
 major challenges is how to obtain enough
 high-quality DNA from an extinct species
 to **conduct** an experiment. While it
- is theoretically possible under ideal conditions to preserve genetic material for thousands of years, these conditions rarely occur in real life. For example,



Dolly the sheep was the first animal to ever be cloned.

- researchers have obtained a number of samples of mammoth DNA, but none
 have been usable. And the cloning process presents its own problems. Scientists
 have been able to clone only a few species of animals, and most cloned creatures
 are **frail** and don't live very long.
- And there is a final, ethical consideration. Even if we learn how to reproduce an example of an extinct species, that individual could never have a normal life. Its natural environment is most likely gone and it would have no parents to show it how to behave as a member of its species. So the animal would remain a curiosity and probably live out its life in a zoo. People question whether it would be ethical to revive one of nature's creatures for such a purpose.
- Only time will tell if scientists manage to carry out their ambitious plans. Even if
 they manage to overcome the scientific problems, they may face **opposition** from
 governments or society. Some even feel it might be more **worthwhile** for us to
 focus our efforts on conservation and take care of existing species, so they don't
 also go the way of the woolly mammoth.

A Choose the correct answers for the following questions.

- 1 Which statement is true regarding the number of species on Earth?
 - a At one point, there used to be over a billion species living on Earth.
 - **b** There are more extinct species than there are living species.
 - c About 20 species of animals are going extinct every day.
- 2 What does the sentence So it seems somehow fitting that we are now thinking of reviving them (lines 27-28) mean?
 - a These species deserve to be revived because they died of unnatural causes.
 - **b** Only humans have the intelligence and ability to revive these extinct species.
 - c Since humans contributed to their extinction, humans should also be responsible for their revival.
- 3 Both methods require _
 - a the DNA of the extinct species
 - **b** the sperm of the extinct species
 - c a living species that is closely related to the extinct species
- 4 Which is NOT true about revived animals?
 - a They will look different from the original members of their species.
 - **b** They will probably be kept in zoos and conservation centers.
 - c They will probably behave differently from how they originally did.
- 5 What is the overall message of the article?
 - a People are sure to say no to species revival due to ethical issues.
 - **b** There are many issues to consider when it comes to species revival.
 - c It is highly unlikely that scientists will succeed in reviving extinct animals.

B Read the following sentences. Check (/) whether they are true (T) or false (F).

		7	F
1	Studying extinct species can help us understand the past.		
2	The moa is known for the dark stripes down its back.		
3	The bucardo died out before the woolly mammoth did.		
4	Both methods require the extinct species to develop from an egg.		
5	Scientists have successfully managed to preserve mammoth DNA.		
6	People may not want to see extinct species revived.		

Reading Comprehension Check Your Understanding



C Discuss the following questions with a partner.

- 1 The passage mentions several reasons against reviving extinct animals. What are some reasons to support reviving them?
- 2 If reviving extinct animals were possible, which one would you bring back? Why?

Vocabulary Comprehension Words in Context

A Choose the best answer. The words in blue are from the passage. 1 What can you conduct? **b** a car a an experiment 2 To inject is to _____ **b** put something in a take something out 3 When we say "the end of an era," we mean the end of a ___ **b** certain period of time a ten-year period 4 A worthwhile task is one that ___ b takes a lot of time a is beneficial ____ to our proposal. 5 The opposition is likely to say ___ **b** no a yes 6 An outfit that is fitting for the occasion ___ **b** looks good on the person a matches the dress code 7 If someone is in frail health, he or she _____ a exercises regularly **b** becomes sick easily 8 I revived my enthusiasm for playing piano because I ___ a used to love playing as a child **b** would like to learn Complete the following sentences using the words in blue from A. You might have to change the form of the word. 1 He fainted and we had to _____ him by splashing water on his face. 2 There was a lot of ______ to the government's plan to build a highway next to a residential area. 3 Organizing my mom's birthday party was hard work but it was all ____ when I saw how happy she was. 4 In the wild, animals that are _____ are the most vulnerable to attack. 5 The teacher is going to ______ a class survey to find our level of awareness about endangered species. 6 The nurse used a needle to ______ medicine into the patient's arm. 7 Since Peter was the one who introduced the couple, it was ____ that he was the best man for the wedding. The development of antibiotics marked a new ______ in modern

medicine.

A Complete the following sentences using the words in the box. You might have to change the form of the word.

Vocabu	lary Skill
The Suffix -	ize

In this chapter you saw the word fertilize, meaning to make fertile. This is one of the uses of the suffix -ize, a very important suffix in English that can turn nouns and adjectives into verbs. In British English, -ize is spelled -ise.

comi	mercialize	hospitalize	idolize	legalize	stabilize	digitize	authorize
1	Thousand	s of teen girl	s		that Profe	ssor.	
2	Many elde	erly people w	ere		for heat	stroke du	uring the long
	hot summ	er.					
3	Alcohol us in 1933.	sed to be bar	nned in t	he United	States. It	was	
4		sign this forr	n in orde	er to		the pay	ment
5		tions are so _					
		nents than m			,		
6	The banks	s are waiting	for the e	conomy t	0	t	pefore they
	make any	big decisions					
7	I would lik	ke to		my music	c collection	n so I can	put it on my
	portable r	nusic player.					

B Add the suffix -ize to the words in the box, then use them to complete the following sentences. You might have to change the form of the word. You may use a dictionary to help you.

	modern	sterile	final	energy	colony	summary	
1	Drinking	a cup of c	offee in t	he morning	always		_ me.
2	l can't sh	now you th	e party p	olans until I		them.	
3	You can	use alcoho	ol or iodii	ne to	8	a wound.	
4	The gove	ernment is	taking s	teps to		_ the country	/'S
	commun	ications ne	etworks :	so people o	an have fas	ster Internet a	access.
5	Many As	ian countr	ies were		by Eu	ropean cour	ntries in the
	19th cen	itury.					
6	, -	d reading by after rea		be able to		the pas	ssage

Motivational Tip: Using this vocabulary skill in your reading. This vocabulary skill of being able to recognize words with the suffix -ize will help you in your reading beyond this book. How can you utilize this in your reading outside of class? If you don't practice this skill, you will eventually forget it. So try out your new skill outside of the classroom and your vocabulary will continue to increase!

Real Life Skill

Dictionary Usage: Choosing the Right Word

In English, there are many words or phrases that are similar in meaning but are not exactly the same. In a good English-English dictionary, there will often be usage notes that compare the word or phrase with another, or explain how the word or phrase is used. Using these notes can help you choose the correct word or phrase.

A Read the dictionary entries below. Explain to a partner how the words dead, extinct, exotic and foreign are similar and different.

dead adj. no longer living, lifeless: I think this plant is dead.

ex•tinct adj. something that is no longer in existence, specifically used for animals, plants, or ideas: Dinosaurs became extinct about 60 million years ago.

ex•ot•ic adj. different, strange, foreign, usually in an interesting or exciting way: Carmen prepared an exotic dish from southern Spain.
for•eign adj. located outside one's native country or area; nonnative, different: Hiroko speaks Japanese and two foreign languages.

- B Complete the following sentences with one of the words from A.
 - 1 I've traveled all over my own country and, in addition, have visited five _____ countries.
 - 2 There were once many dodos on the island of Mauritius. Since the late 1800s, though, the bird has been _____.
 - 3 I thought that Cary Grant, the actor, was still alive, but someone told me that he's been ______ for more than ten years.
 - 4 Many people think the white tiger is a(n) _____ and beautiful animal.
- Can the word or phrase and its synonym be used in exactly the same way? You may use a dictionary to help you.

What do you think?

- 1 Are there any endangered species in your country? What is the government doing to protect them? What can you do as an individual to help save endangered animals?
- 2 Why are some animals more successful than others in terms of survival? Can you give any examples?
- 3 Some people believe animals that are unable to adapt to the changing environment should be allowed to go extinct. What do you think?