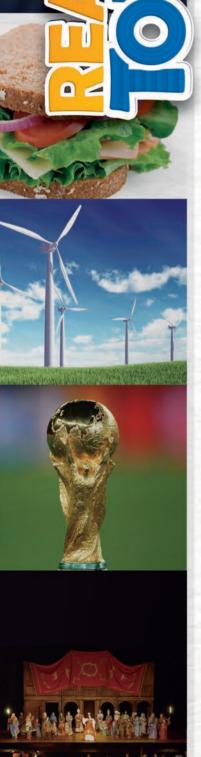
Contents



Part 1

Unit 1	Animais: Ocean Giants	
Lesson 1	Killer Sharks?	12
Lesson 2	Whales Like Us	18
Review	Connecting Lesson 1 & Lesson 2	24
Unit 2	The Origins of Names: A Sand	wich and a Pizzo
	The Earl's Lunch	28
Lesson 2	A Pizza Fit for a Queen	34
Review	Connecting Lesson 1 & Lesson 2	40
Unit 3	Technology: Energy	
Lesson 1	Revolutionary Steam	44
Lesson 2	Power from the Breeze	50
Review	Connecting Lesson 1 & Lesson 2	56
Unit 4	Sports: Soccer	
Lesson 1	Soccer or Football?	60
Lesson 2	A Soccer Success	66
Review	Connecting Lesson 1 & Lesson 2	72
Unit 5	Arts: Opera	
Lesson 1	An Italian Success Story	76
Lesson 2	Appreciating Opera	82
Review	Connecting Lesson 1 & Lesson 2	88

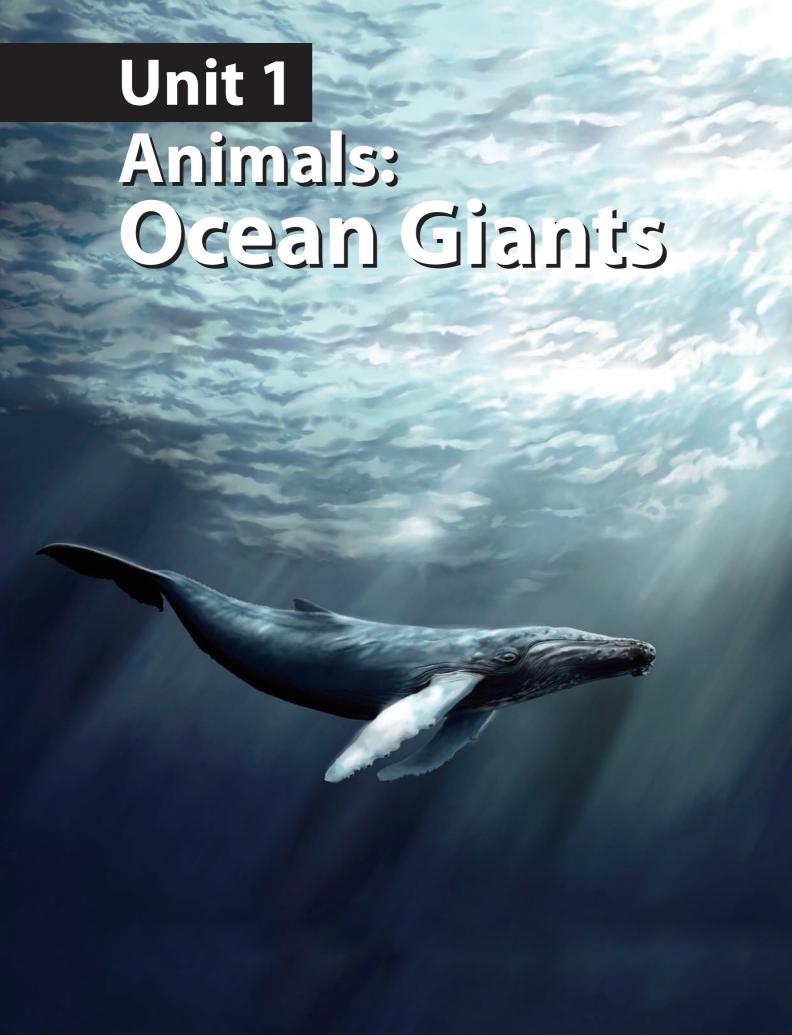


Part 2

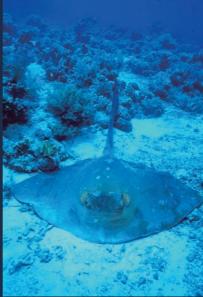
Unit 6	Health: Human Muscles	
Lesson 1	Marvelous Muscles	94
Lesson 2	Muscle Man	100
Review	Connecting Lesson 1 & Lesson 2	106
Unit 7	Environmental Issues: Rainforests	
Lesson 1	The Amazing Amazon	110
Lesson 2	Saving the Rainforest	116
Review	Connecting Lesson 1 & Lesson 2	122
Unit 8	People and Culture: The Iroquois	
Lesson 1	The People of the Longhouse	126
Lesson 2	Thanks to the Little People	132
Review	Connecting Lesson 1 & Lesson 2	138
Unit 9	Our Earth: Glaciers	
Lesson 1	Rivers of Ice	142
Lesson 2	Franz Joseph Glacier	148
	Connecting Lesson 1 & Lesson 2	154
Unit 10	A "How-to" Guide: Do It Yourself	
Lesson 1	Homemade Fashion	158
Lesson 2	Spy Games	164
Review	Connecting Lesson 1 & Lesson 2	170



Part 3











Fact File

The ocean covers 75% of the Earth's surface and is home to thousands of species, many still undiscovered. Scientists estimate that only 10% of all sea life has been catalogued. And that's good news for marine biology students! There is still so much we need to learn about one of the most important and least explored parts of our world - the ocean.





Warm Up

Talk about these questions and share your opinions with your classmates.

- 1. Do you think ocean animals are in danger? Why or why not?
- 2. What do you think can be done to protect the ocean and the animals that live in it?

Killer Sharks?



A Discussion

- 1. Look at the picture above and discuss.
 - a. What do you know about sharks?
 - **b.** Are you afraid of sharks? Why or why not?
- 2. Which do you think is true? Compare and discuss your answers.

a. Sharks like the taste of humans.	T	F
b. Sharks are afraid of some animals.	T	F
c. Sharks like eating seals.	T	F

- **B** Key Vocabulary

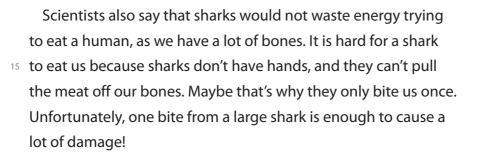
 Look for the words in bold type in the passage on the opposite page.

 Write the each word next to its definition using the base form of the word.
 - to find; to meet
 a type of plant or animal
 - 3. ______ a detailed study of something in order to find out new information
 - **4.** _____ a covering that has a consistent thickness
 - 5. _____ something that has been attacked by something else
 - **6.** _____ really; certainly; without a doubt
 - 7. _____ to find out about or learn more about something
 - 8. _____ in a normal way

Killer Sharks?

Should we be afraid of sharks? Maybe not. New **research** into the causes of shark attacks suggests that sharks don't like the way humans taste! In fact, most shark attack **victims** survive after receiving only one bite. Why is this?

There are many theories to explain why sharks sometimes attack people. One theory is that sharks are just curious. We know that sharks are the strongest animals in their environment, so they are not scared of anything. **Naturally**, that means they are curious when they **encounter** something unusual. Because they don't have hands or feet, the only way they can **explore** an object is to bite **it**! It is thought that sharks sometimes bite humans for this reason, and then swim away.



Another theory is that sharks attack humans by mistake. Some species, such as the great white sharks, may sometimes mistake humans for a seal. An example of this is when a shark attacks a surfer. A surfer lying on a surfboard looks like a seal when seen from below. Sharks like seals because they have a thick layer of tasty fat.

Whatever the reason for shark attacks on humans, sharks should **definitely** be afraid of us. Sadly, we kill almost 40 million of them each year. 275 words



A great white shark.



A surfer lying on a surfboard.



A tiger shark.

Fact File 1 Did you know?

Sharks never need to see a dentist! When a tooth is damaged, it simply falls out. Then another tooth comes up to fill its place.

2. During Reading

Reading Skill **Tip**

When you scan, don't read every word, and don't stop when you see a word you don't know. Read quickly and stop only to find the information you are looking for.

A Scanning for Information Circle the correct answer.

1. What happens to shark attack victims?

- a. Only a few survive.
- b. Most of them die.
- c. Most of them live.

2. What do sharks like to eat?

- a. They like to eat seals because of their thick layer of fat.
- b. They like to eat humans because they have lots of meat.
- c. They like to eat fish because they have lots of fat.

3. According to one theory, how do sharks explore an unusual object?

- a. by smelling
- b. by touching
- c. by biting

Fact File 2

4. Which sentence about sharks is true?

- a. Sharks pull meat off bones when they eat.
- b. Sharks might mistake humans for seals.
- c. Sharks only attack surfers.

5. Which sentence about sharks is NOT true?

- a. One bite from a shark can cause a lot of damage.
- b. Sharks like the taste of humans.
- c. Sharks don't have hands to help them eat.

Read this! The great white shark lives in coastal waters all around the world. They can grow up to 6 meters long and weigh up to 2000 kg. They like to eat fish, seals, and sea lions.

Every paragraph has a main idea. Often, but not always, the main idea is contained in a topic sentence.

B-1 Identifying Main Ideas Circle the correct answer.

1. Which is the main idea of paragraph 2?

- a. The only way that sharks can explore an object is to bite it.
- **b.** Sharks are the strongest animals in their environment.
- c. Sharks sometimes attack people because they are curious about anything that is unusual.
- d. Sharks swim away after biting humans.

2. Which is the main idea of paragraph 3?

- a. Sharks can't pull the meat off our bones.
- b. Sharks don't have hands.
- c. Sharks don't like humans because we have a lot of bones.
- d. One bite from a large shark is enough to cause a lot of damage.

Reading Skill **Tip**

Identify the various actions that occur in the passage. Then consider the consequences of each of those actions. Use this method to summarize what happened in the passage.

B-2 Organizing Information: Identifying Cause and Effect Complete the chart.

Cause	Effect
Sharks are	Sharks bite people.
Humans have	It is difficult for sharks to eat humans.
A human lying looks like	Sharks mistake people for seals.
Humans	Sharks should be afraid of people.



Think about how the target word is related to the topic of the passage. Then look at the words around the target word to guess its meaning.

- Understanding Words in Context Circle the correct answer.
 - 1. In line 5, what does the word 'theories' mean?
 - a. reasons
- b. ideas

- c. facts
- 2. In line 7, what does the word 'environment' mean?
 - a. surroundings
- b. mind

c. species

Reading Skill Tip

A referent refers to something that has been mentioned before. Substitute the possible answer for the referent and see if the sentence makes sense.

- D Identifying Referents Circle the correct answer.
 - 1. In line 11, what does it refer to?
 - a. an object
- b. a human

c. a shark

- 2. In line 21, what does this refer to?
 - a. the great white shark
 - b. attacking a surfer
 - c. mistaking a human for a seal

Reading Skill Tip

While making inferences, you combine the information in the passage with your general knowledge.

- **E** Making Inferences Circle the correct answer.
 - 1. Why do you think sharks don't like to eat humans?
 - a. Humans are harder to eat than fish and seals.
 - b. There isn't any meat on a human.
 - c. Humans are too hard to find.
 - 2. Why do you think sharks are curious about humans?
 - a. because humans look like seals
 - b. because sharks don't see humans often
 - c. because sharks want to be friends with humans

Reading Skill **Tip**

Read carefully and choose the restatement that best summarizes the highlighted passage. Your goal should be to leave the meaning unchanged and to include all important information.

- **F** Recognizing Restatements Circle the correct answer.
 - 1. Which of the following sentences best restates the highlighted information in line 11?
 - a. This is the reason why sharks bite us.
 - b. This is the only reason why sharks always bite us.
 - c. Some people think this is why sharks sometimes bite us.

3. After Reading

A-1	Vocabu	ılarv	Practice	Fill in the blanks
4	rocabt	aidi y	1 I deciee	I III III tile blatiks

	encounter research		species naturally	ŕ
	research	layers	Haturally	explored
1.	The is in h	nospital with serio	us injuries.	
2.	The new students	the	ir classroom excitedly.	
3.	Tourists who are prepa	ared rarely	problems v	vhen travelling.
4.	In the winter, it is impo	ortant to wear two	or three	of clothing.
5.	There are many differe	ent	of shark.	
6.	Scientists do a lot of _	t	o find out about some	thing new.
7.	lt is	a good idea to we	ear a sun hat in summe	er.
8.	Wild mushrooms grov	V	_ in our area. They are	not planted.

A-2 Synonyms and Antonyms Fill in the blanks using the words in the box above.

1	absolutely	=	4	meet	=	
2	kinds/types	=	5	a study	=	
3	normally	=	6	attacker	\leftrightarrow	
						= synonym ← antonym

- **B Discussion** Talk with a partner and then have a class discussion.
 - 1. Have you ever seen a shark? Where and when?
 - 2. What should swimmers do if they see a shark?
 - 3. What interesting facts do you know about sharks?

C	Writing Practice	Write your opinion and share it with your class
---	------------------	---

I think people (should / shouldn't) be afraid of sharks because	

Whales Like Us



A Discussion

- 1. Look at the picture above and discuss.
 - a. What can you see in the picture?
 - b. What do you know about whales? Do you think they are interesting animals?
- 2. Do you agree or disagree? Compare and discuss your answers.

a. Whales and humans are a lot alike.	Agree Disagree
b. Whales don't sleep.	Agree Disagree
c. Whales generally live longer than humans.	Agree Disagree

B Key Vocabulary Look for the words in bold type in the passage on the opposite page.

Write the each word next to its definition using the *base form* of the word.

1. _____ the organs that mammals breathe with

2. _____ a way that people or things are the same

3. _____ times when things happen

4. _____ the length of time something is expected to live

5. _____ to be controlled or determined by something else

6. _____ to help show that something is true; to help

7. _____ to change something for a new situation

8. _____ to exchange information by speaking, writing, or gestures

Whales Like Us

Whales are mammals just like humans, and there are many similarities between **us**. We both breathe air, have warm blood, and feed our babies milk. Whales even have a small amount of hair! There are many other interesting **similarities** as well.

- One similarity is that humans and whales both need sleep.
 Sleeping is easy for humans because we live on land. It is more difficult for whales because they need to breathe and swim at the same time. To overcome this problem, scientists think that one half of the whale's brain sleeps while the other half is awake.
- This idea is **supported** by sightings of whales swimming with one eye closed.

Lifespan is another similarity between humans and whales. Whales generally live for 40-90 years, **depending on** their species. On rare **occasions**, they can live for over a century. This is very similar to human's lifespan.

Whales also **communicate** with **each other** using sounds, just like humans do. Some whales sing, while other whales use loud clicks. Because they are so large and powerful, the sounds whales make can be extremely loud. Sometimes whales shout messages

to each other!

However, whales and humans are not exactly the same. There is one important difference: our **lungs**. Whales have a special breathing system that lets them stay underwater for long periods of time. Some whales, such as the sperm whale, can stay underwater for up to two hours while holding a single breath. Humans aren't as well **adapted**. Our record for holding our breath is only 10 minutes and 12 seconds. 258 words



A sperm whale.



A beluga whale.



A humpback whale.

Fact File 1 Did you know?

Blue whales are the loudest animals on the planet. Their songs, which measure up to 188 decibels, are louder than a jet taking off!

2. During Reading

Reading Skill Tip

When you scan, don't read every word, and don't stop when you see a word you don't know. Read quickly and stop only to find the information you are looking for.

A Scanning for Information Circle the correct answer.

1. How long do whales generally live?

- a. up to 40 years
- b. about the same as humans
- c. over a century

2. Why do whales make such loud sounds?

- a. Sound doesn't travel through water very well.
- b. Whales can't hear very well.
- c. Whales are very big and strong.

3. According to scientists, how do whales overcome the difficulty of sleeping?

- a. They breathe and swim at the same time.
- b. One half of the whale's brain sleeps while the other half is awake.
- c. They swim with their eyes closed.

4. Which sentence about whales is true?

- a. They don't need to sleep.
- b. They can breathe underwater.
- c. They can hold their breath for a long time.

5. Which sentence about whales is NOT true?

- a. They are covered with a lot of hair.
- b. They feed their babies milk.
- c. They breathe air.

Fact File 2



Did you know?

Humpback whales feed only in the summertime. They need to eat huge amounts of fish like salmon and mackerel to fatten up for the long winters. Sometimes they hit the water with their large tails to stun schools of fish. This makes the fish easy to catch.

Every paragraph has a main idea. Often, but not always, the main idea is contained in a topic sentence.

B-1 Identifying Main Ideas Circle the correct answer.

1. Which is the main idea of paragraph 2?

- a. Both humans and whales need sleep.
- b. One half of the whale's brain sleeps while the other half is awake.
- c. People have sighted whales swimming with one eye closed.
- **d.** Sleeping is difficult for whales because they need to breathe and swim at the same time.

2. Which is the main idea of paragraph 3?

- a. Some species of whale live for longer than others.
- b. Sometimes whales can live for over a century.
- c. Whales generally live for 40-90 years.
- d. Whales and humans have about the same lifespan.

Reading Skill **Tip**

When you compare and contrast, you explore the similarities and differences between two or more things.

B-2 Organizing Information: Compare and Contrast Complete the chart.

Similarities between whales and humans	Differences between whales and humans
① Both breathe	① Whales live in
② Both have warm	② Only one half of the whale's
③ Both feed their babies	brain
④ Both have some	
⑤ Both need	③ Whales have different
6	
⑦	
·	

Think about how the target word is related to the topic of the passage. Then look at the words around the target word to guess its meaning.

C Understanding Words in Context Circle the correct answer.

- 1. In line 13, what does the word 'generally' mean?
 - a. never

b. typically

- c. interestingly
- 2. In line 19, what does the word 'extremely' mean?
 - a. always
- b. strangely

c. especially

Reading Skill **Tip**

A referent refers to something that has been mentioned before. Substitute the possible answer for the referent and see if the sentence makes sense.

D Identifying Referents Circle the correct answer.

- 1. In line 2, what does us refer to?
 - a. humans
- b. whales

- c. humans and whales
- 2. In line 16, what does each other refer to?
 - a. whales and humans
 - b. other whales
 - c. other humans

Reading Skill **Tip**

While making inferences, you combine the information in the passage with your general knowledge.

- **E** Making Inferences Circle the correct answer.
 - 1. Why do people think that only half of the whale's brain sleeps at a time?
 - a. because whale brains are different from human brains
 - b. because humans have communicated with whales
 - c. because people saw whales swimming with one eye closed

Reading Skill **Tip**

Read carefully and choose the restatement that best summarizes the highlighted passage. Your goal should be to leave the meaning unchanged and to include all important information.

- **F** Recognizing Restatements Circle the correct answer.
 - 1. Which of the following sentences best restates the highlighted information in line 14?
 - a. Over a century ago, whales lived longer than humans.
 - b. It's unusual, but some whales can live for 100 years or longer.
 - c. Humans can live for 100 years or longer these days.
 - 2. Which of the following sentences best restates the highlighted information in line 26?
 - a. Humans can stay underwater for a long time just like whales.
 - b. Humans and whales can't live underwater.
 - c. Humans can't hold their breath for a long time.

3. After Reading

A-1 Vocabulary Practice Fill in the blanks.

	supported depending on		adapted similarities	lifespan communicate		
1. On a f	ew	, I have seen sc	uirrels in this park.			
2. Flies have a very short of only a few weeks.						
3. Fish do not have They have gills.						
4. Jin ha	4. Jin has well to his new school. He has made a lot of friends.					
5. There	5. There are a lot of between the two countries.					
6. My pa	5. My parents my decision to get a job.					
7. Bees _	Bees by doing a special dance.					
<i>8</i>	the weather, we will either go to the museum or the amusement par					

A-2 Synonyms and Antonyms Fill in the blanks using the words in the box above.

1	differences	\leftrightarrow	4	backed up	=	
2	times	=	5	talk	=	
3	changed	=				= synonym ← antonym

- **B Discussion** Talk with a partner and then have a class discussion.
 - 1. What other similarities or differences between humans and whales can you think of?
 - 2. What messages do you think whales send to each other?
 - 3. Are you good at holding your breath?
- Writing Practice Write your opinion and share it with your class.

I (think / don't think) whales are interesting animals because	

1. Summary and Discussion

Reading Skill **Tip**

A passage has one or more main ideas which give us the most important information in that passage. Supporting details explain, give examples or give more information about the main ideas.

Collect the main ideas to complete the summary.

A Main Ideas and Supporting Details

Choose and write the three main ideas of each passage. There are two supporting details.

- ① A surfer looks like a seal.
- ② Whales are different from humans because they have special lungs.
- ③ Sometimes sharks bite humans because they are curious about us.
- 4 Other times sharks mistake humans for tasty seals.
- (5) One half of the whale's brain sleeps while the other half is awake.
- 6 Whales and humans have similar lifespans, and an ability to communicate.
- Thanks probably only bite humans once because humans have a lot of bones.
- (8) Whales and humans both need sleep.

Lesson	Summai	y: Killer Sha	irks?	
•				
•				
•				
Lesson 2	2 Summai	y: Whales L	ike Us	
•				
•				
•				

- **B Discussion** Talk with a partner and then have a class discussion.
 - 1. What was the most interesting fact you learned?
 - 2. How can we better protect sharks and whales?
 - **3.** Have you ever read any other stories about sharks or whales?
 - 4. Why are sharks and whales hunted by humans?

2. Vocabulary Review

A Word Definition Circle the best answer.

1. adapteda. grownb. shrunkc. changed2. explorea. investigateb. exercisec. endanger

3. species a. pieces b. type c. difference

4. similarity a. being similar b. being different c. being unique

5. naturally a. truly b. normally c. really

6. encountera. meetb. hitc. charge7. supporta. helpb. stopc. clear

8. occasion a. purpose b. time c. place

B Crossword Puzzle Complete the puzzle.

definitely lungs			research lifespan							victim layer							depends on communicate					
					2								4									
									5							*						
									3													
								6														
			1																			
	7																					
									8													

Down

1. A is a person who is hurt	
-------------------------------------	--

2. Police ____ using radios.

3. There is a thick _____ of cheese on a pizza.

4. Smoking hurts your _____.

Across

5. A: Can we go picnic tomorrow?

B: It ____ the weather.

6. Flies and mosquitoes have a short _____.

7. I will _____ go to the game. I wouldn't miss it.

8. Scientists do _____ to find cures for disease.