Reading Explorer Foundations (2nd Edition) Teacher’s Guide

*Unit 1 – Mysteries*

**Warm Up**

Answer Key:

1. Some of the unexplained mysteries mentioned in the unit include red clouds, UFOs, the lost city of Atlantis, castle ghosts, and the Loch Ness Monster.
2. Answers will vary. Make sure students understand that a mystery is something unusual that is not well understood. It describes a situation that we can’t explain or where we don’t know the truth.

**Lesson 1A – Have Aliens Visited Us?**

Answer Key:

Before You Read

A. 1. b; 2. a; 3. d; 4. c

B. b

Reading Comprehension

1. c (lines 2–4); 2. b (lines 12–13); 3. b; 4. a (line 19); 5. c; 6. b (paragraph 2)

Reading Skill

A. 1. Earth: lines 5, 16; 2. sideways: line 11; 3. flew: line 19; 4. saucers: line 21; 5. dead: line 21; 6. skies: line 27

B. 1. Judy Varns (line 2); 2. Pat Travis (line 9); 3. new technology (lines 17–18); 4. pilot (line 19); 5. airplanes (lines 23–24)

Critical Thinking

Answers will vary. Students should support their opinions with reasons.

Vocabulary Practice

A. 1. strange; 2. purpose; 3. area; 4. technology; 5. research

B. 1. b; 2. a; 3. a; 4. b; 5. b

**Lesson 1B – The Lost City of Atlantis**

Answer Key:

Before You Read

A. 1. sank; 2. rich; 3. island; 4. greedy

B. 1. People names: Plato (line 3), Robert Sarmast (lines 13, 14), Richard Ellis (line 19);

2. Place names: Atlantis (title, lines 2, 4, 12, 17, 19, 21, 23); Cyprus (line 14)

Reading Comprehension

1. b; 2. b (paragraph 2); 3. c (line 16); 4. c; 5. a; 6. c

Reading Skill

A. 1. skim; 2. scan; 3. scan; 4. skim

B. b

Critical Thinking

Answers will vary.

Vocabulary Practice

A. 1. structure; 2. struck; 3. reported; 4. solid; 5. piece

B. 1. T; 2. F; 3. F; 4. F; 5.

**Viewing: Lock Ness Mystery**

Answer Key:

Before You Watch

A. 1. d; 2. e; 3. a; 4. b; 5. c

B. Answers will vary.

While You Watch

The picture shows a photograph that was published in 1934 in a London newspaper of a creature in Loch Ness, a lake in Scotland. The photograph was proven to be a fake many years later. The creature in the photograph is not real, but many people continue to believe in the existence of the Loch Ness Monster.

After You Watch

A. 1. People first reported strange movements in the lake.; 2. Newspapers in the 1930s published stories about the monster, but they had no pictures.; 3. “Duke” Wetherall took a photo of “Nessie.”; 4. This photograph was published in newspapers.; 5. The Loch Ness story continued to grow.; 6. Christian Spurling told people the true story.

B. Answers will vary. Possible answers:

1. Often when an unusual sighting is announced, people suddenly tell similar stories in order to get attention.

2. Mysteries in the unit that scientists can explain include: the red cloud on Mauna Kea; Area 51; some crop circles; places claimed so far to be Atlantis; photos of the Loch Ness

Monster. Mysteries in the unit that scientists can’t explain completely include: aliens; UFO sightings; existence of Atlantis; the structures near the Yonagumi Islands; the dog ghost in Leeds Castle; some sightings of the Loch Ness Monster.

*Unit 2 – Favorite Foods*

**Warm Up**

Answer Key:

1. Answers will vary. Make sure students understand that food from other countries can refer to food cooked at home or food eaten in a restaurant. Note that it’s common for foreign food to be changed somewhat to adapt to the tastes of the people eating it. Sometimes it becomes a whole new cuisine, such as Tex-Mex in the United States or Japanese curry in Japan.

2. Answers will vary. Spicy dishes usually contain chili peppers of some variety. Some examples of spicy foods include various types of curry, kimchi, tom yum soup, bibimbap, and jerk chicken.

**Lesson 2A – The History of Pizza**

Answer Key:

Before You Read

A. 1. According to the caption on page 22, many people believe the Greeks were the first to make pizza, but the Romans also made it. The passage tells us that pizza-type food was made as long ago as the Stone Age.; 2. Answers will vary. Olive oil and spices are mentioned in the caption, but others include cheese, sausage, vegetables, anchovies, and pepperoni.; 3. Answers will vary.

B. Predictions may vary, but students should be able to make guesses using the title and subheadings. Actual answers are *Where is pizza from? and When did people first put tomatoes on pizza?*

Reading Comprehension

Multiple Choice. 1. c; 2. a; 3. b; 4. b; 5. b (lines 17–18); 6. b (line 19)

Reading Skill

A. a title, subheadings, a main text, photos, captions, footnotes

B. 1. 5; 2. 4; 3. No (There is no caption for the picture of the tomato on page 24.); 4. 3; 5. No

Critical Thinking

Answers will vary. Pizza is not generally considered a healthy food these days, but it can be made healthier with the addition of nutritious toppings.

Vocabulary Practice

A. 1. b; 2. a; 3. b; 4. b; 5. a

B. 1. various; 2. cook; 3. traditional; 4. ingredient; 5. tasty

**Lesson 2B – The Hottest Chilies**

Answer Key:

Before You Read

A. 1. T; 2. F, The Scoville is a unit of heat used to measure chilies.; 3. T; 4. F, Sweet bell peppers have a rating of zero SHU.

B. Naga Jolokia, or “Ghost Peppers”

Reading Comprehension

A. 1. b; 2. c; 3. a (lines 10–11); 4. b (line 16, or the diagram on page 28); 5. c (line 24); 6. c

Reading Skill

A. 1. It = The jalapeño; 2. she = my mother; 3. they = chilies; 4. it = The cayenne pepper; 5. them = chili peppers

B. 1. Capsaicin; 2. Anandita Dutta Tamuly; 3. chilies (the heat of the chilies)

Critical Thinking

Answers will vary. Students should support their ideas and opinions with reasons and examples.

Vocabulary Practice

A. 1. recently; 2. dishes; 3. painful; 4. measure; 5. contains

B. 1. c; 2. b; 3. d; 4. a; 5. e

**Viewing: A Taste of Mexico**

Answer Key:

Before You Watch

A. 1. historic; 2. developed; 3. complex; 4. cultures

B. Answers will vary. Students should support their guesses and ideas with reasons.

While You Watch

The video focuses on the food and traditions of a part of Mexico called Oaxaca.

After You Watch

A. 1. chilies; 2. cooking school; 3. Europe; 4. ingredients; 5. mole; 6. history; 7. national; 8. Hotel B. Answers will vary. Students should support their opinions with reasons and examples.

*Unit 3 – Cool Jobs*

**Warm Up**

Answer Key:

1. The photo shows climate scientists working in the Arctic. An important part of the job of a climate scientist involves studying weather conditions, which can take the scientists to places of extreme temperatures or conditions, as in this photo. Whether students would enjoy a job like this will depend on individual personalities and tastes. Perhaps this is a job that suits people who are comfortable being in extreme climate conditions. In addition, most scientists spend a lot of time researching, collecting data, studying data, and analyzing results—tasks students would need to be excited about to excel at this job.

2. Answers will vary. Students should give examples of any jobs that they consider “cool.” Make sure students understand that cool means “interesting” or “unique,” not “cold.”

**Lesson 3A – Training Grizzlies**

Answer Key:

Before You Read

A. 1. e; 2. c; 3. b; 4. a; 5. d

B. 1. He wrestled with grizzly bears. / He worked as an animal trainer.; 2. Wasatch Rocky Mountain Wildlife, an animal-training center

Reading Comprehension

1. c; 2. a; 3. a (paragraphs 2–3); 4. a (line 11); 5. b; 6. b

Reading Skill

A. 1. b; 2. c; 3. d; 4. a

B. Parts of speech and possible definitions: 1.noun, school / a place with buildings where training or another activity is learned; 2. verb, seems; 3. noun, the part of the body behind the chest, below the shoulders, and above the hips; 4. noun, a surface outside, such as grass or dirt, that we stand on

Critical Thinking

Possible answers: dogs, birds, horses, mice, and cats

Vocabulary Practice

A. 1. difficult; 2. enjoy; 3. comfortable; 4. take care of

B. 1. a; 2. b; 3. b; 4. a; 5. b

**Lesson 3B – Getting the Shot**

Answer Key:

Before You Read

A. Answers will vary. Students should support their answers and ideas with examples and reasons.

B. Question 1: How did you become a National Geographic photographer?; Question 2: What kind of photographers is the National Geographic magazine looking for?; Question 3: Is it difficult to get a job as a photographer today?; Question 4: I want to be a photographer. Do you have any advice for me?

Reading Comprehension

1. b; 2. b (line 6); 3. c (lines 19, 21–23); 4. c; 5. c (lines 26–28); 6. c

Reading Skill

A. The following should be checked: 1, 3, 4.

B. 1. Joel Sartore is a writer, teacher, and photographer.; 2. And that led to a nine-day job, and so on.; 3. To get into National Geographic, you have to give them something they don’t have.; 4. If you do it for the money, you probably won’t really be happy.; 5. If so, you’ll enjoy the work much more.

Critical Thinking

Answers will vary. Possibilities include: What’s the most interesting picture you’ve taken? If you weren’t a photographer, what would you be?

Vocabulary Practice

A. 1. spent; 2. enough; 3. image; 4. situation

B. 1. T; 2. T; 3. F; 4. T;

**Viewing: Right Dog for the Job**

Answer Key:

Before You Watch

A. Students read the paragraph and pay attention to the words in bold.

B. Guesses will vary. Actual answers are pick up things, find help, call the police, turn lights on, be comfortable with people, and get along with other animals.

After You Watch

A. 1. want to help their owners; 2. better learners; 3. face situations; 4. experience the world outside

B. 1. needs help; 2. the dog can decide; 3. find a way to deal with it

C. 1 and 2. Answers will vary.

*Unit 4 - Shipwrecks*

**Warm Up**

Answer Key:

1. Answers will vary. Some famous shipwrecks include the Titanic shipwreck in the North Atlantic Ocean, the Black Swan shipwreck off the coast of Spain, the Yongala in the Great

Barrier Reef in Australia, the

Lusitania off the coast of Ireland, and the Bom Jesus off the Skeleton Coast.;

2. Answers will vary.

**Lesson 4A – I’ve Found the Titanic!**

Answer Key:

Before You Read

A. 1. T; 2. F (mostly women and children got into lifeboats); 3. T; 4. F (nobody knew for 73 years)

B. Ballard visited the Titanic three times: 1985, 1986, and 2004.

Reading Comprehension

1. c; 2. a (lines 7–8, 10); 3. a (lines 1–2); 4. b (line 15); 5. b (line 18); 6. a (lines 22–23)

Reading Skill

A. b

B. Paragraph1. b; Paragraph 2. b; Paragraph 3. b; Paragraph 4. b; Paragraph 5. a

Critical Thinking

Answers will vary. Students should support their opinions with reasons and examples.

Vocabulary Practice

A. 1. deaths; 2. conditions; 3. reach; 4. Returned

B. 1. a; 2. a; 3. b; 4. a; 5. a; 6. b

**Lesson 4B – Treasure Ship**

Answer Key:

Before You Read

A. 1. coast; 2. sailors; 3. bones; 4. skeleton

B. Predictions will vary. Actual answers: how a ship became wrecked; what was found on the shipwreck

Reading Comprehension

1. c (lines 4–5); 2. b; 3. c (line 11); 4. b (lines 15–16); 5. b (line 22); 6. a

Reading Skill

A. On July 17, 1956, the Andrea Doria left Italy for New York. The ship was carrying over 1,700 passengers and crewmembers. A week later, the Stockholm left New York for Sweden. That night, the Andrea Doria and Stockholm crossed paths with tragic results. Just after 11:00 p.m., the Stockholm smashed into the side of the Andrea Doria. The Andrea Doria began to slowly sink. The Stockholm helped with the rescue of the passengers, but there would be 52 deaths that night. Were darkness and bad weather the cause of the accident? It remains a mystery to this day.

B. 1. more copper, many gold coins; 2. maps, books about the ships; 3. 300 people, a large amount of treasure

Critical Thinking

Answers will vary. Students should support their opinions and ideas with reasons and examples.

Vocabulary Practice

A. 1. carrying; 2. amount; 3. distant; 4. metal; 5. Letter

B. 1. hole; 2. beach; 3. metals; 4. expensive

**Viewing: Saving Ocean Life**

Answer Key:

Before You Watch

A. 1. d; 2. c; 3. b; 4. e; 5. a

B. Predictions will vary. The actual answer is that shipwrecks help save ocean life because they stop trawlers from damaging the seabed.

After You Watch

A. 1. war; 2. tearing up trawl nets; 3. metal; 4. falls apart; 5. build concrete walls; 6. smart

B. 1. Sobel means that he believes that a way will be found to save ocean life.; 2. Answers will vary. Students should support their ideas with reasons and examples. Some ways that individuals can protect ocean life include not littering, not overfishing, not polluting, not wasting water, etc.

*Unit 5 – Science Investigators*

**Warm Up**

Answer Key:

1. The photo shows a crime scene investigator examining shattered glass. He is likely looking for evidence, such as blood, DNA, or a hair, that can help him identify the person who committed the crime.; 2. Answers will vary. Students have already learned about climate scientists in a previous unit. Some other examples of jobs that involve science are doctors, dentists, weather forecasters and meteorologists, science teachers, and science writers. In addition, many jobs may involve science indirectly, a theme that was touched on by National Geographic photographer Joel Sartore in his interview in Unit 3B.

**Lesson 5A – At the Scene of a Crime**

Answer Key:

Before You Read

A. 1. the police; 2. and 3. Answers will vary.

B. The clues he finds include a broken window, glass on the street, shoeprints, marks made by a tire, fingerprints, and a hair.

Reading Comprehension

1. b; 2. b; 3. b (lines 8–12); 4. b (lines 16–18); 5. a (line 20); 6. b (lines 29–30)

Reading Skill

A. 1. b; 2. b; 3. b

B. Boxes 2. and 5.should be checked.

Critical Thinking

Answers will vary. Students should support their ideas and opinions with reasons and examples.

Vocabulary Practice

A. 1. catch; 2. comparing; 3. direction; 4. possible

B. 1. a; 2. b; 3. b; 4. a

**Lesson 5B – The Disease Detective**

Answer Key:

Before You Read

A. 1. strains; 2. ill; 3. bacteria; 4. microscope

B. how a doctor found the cause of an illness

Reading Comprehension

1. b; 2. b (lines 15–20); 3. a (lines 9, 11); 4. b (line 17); 5. b (paragraph 5); 6. c (lines 22–24)

Reading Skill

A. The following items should be checked: to introduce a topic, to help explain a photo, to provide facts, to give a definition.

B. 1. a; 2. a; 3. b; 4. a

Critical Thinking

Possible answers include: washing your hands regularly, cleaning food before eating it, cleaning kitchen utensils well, having vaccinations, wearing a mask to prevent spreading germs.

Vocabulary Practice

A. 1. dangerous; 2. kill; 3. expert; 4. touch

B. 1. F; 2. T; 3. F; 4. T; 5. T

**Viewing: Virus Detectives**

Answer Key:

Before You Watch

A. 1. prevent; 2. deadly; 3. spread; 4. cure; 5. kill

B. Answers will vary. The video tells us that the team of scientists believes that most viruses start and spread in warm places.

After You Watch

A. 1. animals; 2. wild animals; 3. warm; 4. the whole world

B. 1. Yes. Students might be familiar with avian influenza, or bird flu, which spreads from birds such as chickens.;

2. The video tells us that eating wild animal meat is one way.;

3. The video explains that viruses are spreading more easily from country to country because we are so in contact with people from all parts of the world now.

C. 1. Answers will vary.; 2. Answers will vary. Possibilities include: washing your hands regularly, bowing as a greeting instead of shaking hands, and not eating wild animal meat.

*Unit 6 – Explorers and Pioneers*

**Warm Up**

Answer Key:

1. Answers will vary. Some famous explorers include Marco Polo, Ibn Battuta, Lewis and Clark, Zheng He, and Matthew Henson. There are pioneers in all fields and industries. Some examples include Johannes Gutenberg in printing, Albert Einstein in science, Martin Luther King, Jr. in civil rights, and Amelia Earhart in aviation.; 2. Answers will vary.

**Lesson 6A – Who was Sacagawea?**

Answer Key:

Before You Read

A. 1. coin; 2. tribe; 3. statue

B. how Sacagawea helped the explorers, how people remember Sacagawea today

Reading Comprehension

Multiple Choice. 1. c; 2. b (line 10); 3. c (line 15); 4. b (line 19); 5. c; 6. b (lines 23–25)

Reading Skill

A. The events can be found on the following lines: a. line 5; b. lines 22–23; c. line 15; d. line 4; e. lines 6–7; f. lines 20–21; g. line 12

B. from left to right: d, a, e, g, c, f, b

Critical Thinking

Answers will vary. Students should support their ideas with reasons and examples. Finding information on Sacagawea is probably so difficult because she lived in more than one place from a young age and died at a young age. Because she was a Native American, there would not be many written records of her life and movements. Her significant role on the team of explorers and in American history was only really recognized many years after her death.

Vocabulary Practice

A. 1. clearly; 2. actions; 3. among; 4. travel; 5. save

B. 1. a; 2. a; 3. a; 4. b

**Lesson 6B – Polar Pioneer**

Answer Key:

Before You Read

A. 1. member; 2. team; 3. sleds; 4. on foot

B. eight times

Reading Comprehension

1. c (lines 10–13); 2. b (lines 9–10); 3. a; 4. c (line 17); 5. b; 6. a

Reading Skill

A. 1. Greenland; 2. outdoors; 3. snowshoes; 4. Dogsleds

B. 1. classmate, classroom; 2. blackboard, blackbird; 3. outside, outdoors; 4. somebody, someday; 5. daytime, daylight; 6. raincoat, rainwater; 7. sunshine, sunset; 8. uphill, upgrade

Critical Thinking

Answers will vary. Students should support their answers with reasons and examples.

Vocabulary Practice

A. 1. well-known; 2. ahead; 3. join; 4. hero; 5. Drive

B. 1. F; 2. T; 3. T; 4. T;

**Viewing: Native Americans**

Answer Key:

Before You Watch

A. Students discuss what they know about Native Americans.

B. Predictions will vary. Actual answers are the following: Many of them got sick. They taught the settlers about their culture. Their population decreased. They had to leave their homes. They lived in bad conditions.

After You Watch

A. from left to right: 1, 5, 2, 3, 6, 4

B. 1. Asia; 2. totem pole; 3. the government; 4. cloud people

C. Answers will vary.

*Unit 7 – Mind’s Eye*

**Warm Up**

Answer Key:

1. Answers will vary. The picture makes us see an illusion. It looks like the people are exercising on the edge of a cliff when they are actually on a flat surface.; 2. Answers will vary. Students should describe the last dream they can remember.

**Lesson 7A – The Meaning of Dreams**

Answer Key:

Before You Read

A. Answers will vary. Possible answers: 1. c; 2. a; 3. b; 4. d

B. Predictions will vary. Three different types of dreams are discussed and interpreted in the passage.

Reading Comprehension

1. c; 2. c (line 3); 3. c (line 12); 4. c; 5. a (lines 19–20); 6. c (last paragraph)

Reading Skill

A. Answers may vary. However, students should recognize what the main idea of the passage is and what key details support it.

Main Idea: Our dreams come from a part of the brain that contains our thoughts and memories. (lines 2–3);

Key Details: “Dreams help us get in touch with our deeper feelings,” he says. (lines 9–10); Stickgold says the purpose of dreaming through these memories is to help us learn from the past. (lines 14–15); Some people think we dream about embarrassing situations if our brainsare trying to deal with an event in our own lives. (lines 20–22); If you dream about flying, you are probably quite happy. (line 24); This probably means you are worried about an important event coming in your life. (lines 28–29)

B. 1. 40 minutes; 2. remember; 3. Why; 4. problems; 5. meaning; 6. embarrassing; 7. happy; 8. worried

Critical Thinking

Answers will vary. Students should support their opinions with reasons and examples.

Vocabulary Practice

A. 1. result; 2. lasts; 3. useful; 4. prepare; 5. worried; 6. Problems; 7. period; 8. leader

B. 1. periods; 2. lasts; 3. problems; 4. results; 5. worried; 6. prepare; 7. useful

**Lesson 7B – Seeing the Impossible**

Answer Key:

Before You Read

A. 1. and 2. Answers will vary. The illusion of the boy standing in the spoon is made by having the boy stand at a distance from the camera while someone else holds the spoon very close to the camera.

B. Predictions will vary. Each illustration tries to trick the mind by presenting the appearance of something that isn’t there.

Reading Comprehension

1. c; 2. c (lines 18–19); 3. a (line 17 ); 4. b (lines 28–29); 5. b; 6. b (line 7)

Reading Skill

A. 1. and; 2. or; 3. so; 4. but

B. 1. and; 2. but; 3. or; 4. so

Critical Thinking

Answers will vary. Students should support their opinions with reasons.

Vocabulary Practice

A. 1. trust; 2. mistake; 3. Therefore; 4. stare

B. 1. a; 2. b; 3. b; 4. b; 5. b; 6. b

**Viewing: Parasomnia**

Answer Key:

Before You Watch

A. Answers will vary.

B. Predictions will vary. Actual answers are the following: 1. b; 2. b.

While You Watch

B. fighting, talking

After You Watch

A. 1. c; 2. c; 3. c

B. Stage 1: 3, 4; Stage 2: 1, 5, 6 Stages 3 and 4: 2, 7

C. 1. Answers will vary. Generally, you are NOT supposed to wake a sleepwalker, but rather guide them back to bed. 2. Parasomnia can be dangerous because a person could possibly get hurt while moving around in their sleep.

*Unit 8 – Animal Wonders*

**Warm Up**

Answer Key:

1. and 2. Answers will vary. Students should support their opinions with reasons and examples. Make sure students understand that feelings in Question 2 refers to emotions such as happiness and sadness, and not sensations like heat and cold.

**Lesson 8A – A Penguin Family**

Answer Key:

Before You Read

A. Guesses will vary. Actual answers: 1. F; 2. F; 3. F; 4. T; 5. T

B. Predictions will vary. Actual answers: emperor penguins and their babies, young penguins getting older

Reading Comprehension

1. a; 2. a (lines 4–6); 3. a (lines 4, 12); 4. a; 5. b (line 21); 6. b

Reading Skill

A. 1. a; 2. b; 3. b

B. 1. lines 12–13, For two months, the father penguins keep the eggs safe and warm.; 2. lines 19–20, The mother penguin returns just in time to see her baby come out of its egg.; 3. line 21, This can be difficult.; 4. line 27, The chick grows quickly and is always hungry.; 5. lines 29–30, The chick is five months old and can live on its own.

Critical Thinking

Answers will vary. Students should support their opinions with reasons and examples.

Vocabulary Practice

A. 1. parents; 2. adult; 3. on their own; 4. special; 5. enter

B. 1. b; 2. a; 3. a; 4. b

**Lesson 8B – Do Animals Laugh?**

Answer Key:

Before You Read

A. Guesses will vary. Possible answers: 1. anger, surprise; 2. anger, surprise; 3. happiness; 4. boredom

B. There are six names. Human names: Sally Blanchard (line 6), Jean Donaldson (line 15), Patricia Simonet (line 23); Pet names: Bongo Marie (line 5), Paco (line 7), Buffy (line 16)

Reading Comprehension

1. b; 2. b (lines 6–8); 3. b; 4. b (lines 18–19); 5. c; 6. b (line 27)

Reading Skill

A. b, c, d, f

B. 1. joke; 2. laughed; 3. toys; 4. hilarious; 5. laugh; 6. play

Critical Thinking

Answers will vary. Each detail in Activity B supports the theory that animals could possibly have a sense of humor.

Vocabulary Practice

A. 1. similar; 2. relationship; 3. assess; 4. behavior

B. 1. F; 2. T; 3. T; 4. T; 5. T

**Viewing: Penguins in Trouble**

Answer Key:

Before You Watch

A. 1. Answers will vary. Leopard seals and penguins have the most agility while in water, so leopard seals often try to catch penguins in water. However, in the video, students will see a leopard seal try to catch a penguin on land as well. The seals use their mouths to grab the penguins.

B. Students should check their answers on the bottom of page 118. Answers: female, on their own, pup, other seals

While You Watch

1. T; 2. F; 3. T; 4. F

After You Watch

A. 1. d; 2. c; 3. a; 4. e; 5. b

B. Answers will vary. Students should use their own words to talk about each point in Activity A.

C. 1. and 2. Answers will vary. The quote from the video, “In Antarctica, every day is a fight for survival,” tells us that Antarctica is a hard place for animals to live. For example, the temperatures are freezing, the weather is extreme, food is scarce, and there are dangerous predators such as the leopard seal. Note that these are not conditions that humans would be able to easily survive in, which is why animals are the only native inhabitants of Antarctica.

*Unit 9 – Incredible Domes*

**Warm Up**

Answer Key:

1. Answers will vary. The building has many interesting features, including its bright colors, its multiple domes, its many shapes, and its location on Red Square. 2. Answers will vary. Students should give examples of famous buildings in their home countries.

**Lesson 9A – A Love Poem in Stone**

Answer Key:

Before You Read

A. 1. emperor; 2. dome; 3. marble; 4. monuments

B. Predictions will vary. Actual answer: He built it for his wife, the empress, as a monument after her death.

Reading Comprehension

1. b (lines 3–6); 2. a (lines 9–11); 3. c; 4. b (line 16); 5. a (line 14); 6. c (line 24)

Reading Skill

A. 1. Before; 2. After; 3. when; 4. but

B.1. because; 2. When; 3. before; 4. while; 5. because; 6. Although; 7. If; 8. because

Critical Thinking

Answers will vary.

Vocabulary Practice

A.1. couple; 2. finished; 3. legend; 4. supposedlyB.1. a; 2. b; 3. a; 4. a

**Lesson 9B – The Great Dome of Florence**

Answer Key:

Before You Read

A.1. Florence, Italy; 2. Guesses will vary. There are actually two domes. One is made of stone and one of light brick.

B. Predictions will vary. Actual answers: what materials to use, how to support the dome

Reading Comprehension

1. a (line 10); 2. b; 3. c (lines 2, 8, 24); 4. c (lines 22–23); 5. b; 6.

 a (lines 26–28)

Reading Skill

A.

• Any visitor to Florence should climb to the top of the cathedral. It’s an easy walk up the stairs to the dome area.

• The dome is covered with lovely paintings. Look closely at the walls for graffiti that was made by other tourists. Much of it is over a hundred years old. It gives you an idea of the many people who came before you.

• From the top, you get a great 360-degree view of Florence. You can see many of the famous places in the city from there.

B. 1. in; 2. of; 3. of, from; 4. with; 5. into; 6. in; 7. of

Critical Thinking

Answers will vary. Students should support their ideas and opinions with examples and reasons.

Vocabulary Practice

A. 1. material; 2. supported; 3. design; 4. project

B. 1. a; 2. b; 3. b; 4. b

**Viewing: Brunelleschi’s Dome**

Answer Key:

Before You Watch

A. 1. d; 2. c; 3. e; 4. b; 5. a

B. Guesses will vary. Actual answers: 1. 463; 2. four million; 3. under the cathedral; 4.

Michelangelo’s David

After You Watch

A. 1. eight-; 2. dome from changing shape; 3. ahead of their time; 4. pattern

B. Answers will vary. Students should support their opinions with reasons and examples.

*Unit 10 – Wild Weather*

**Warm Up**

Answer Key:

1. Answers will vary.; 2. Many parts of the world are experiencing warmer and more extreme weather conditions due to global warming.

**Lesson 10A – A Warming World**

Answer Key:

Before You Read

A. 1. F; 2. T; 3. F; 4. T; 5. TB. c

Reading Comprehension

1. b; 2. a; 3. c; 4. b; 5. b; 6. b (lines 29–30)

Reading Skill

A. 1. b

B. 1. d; 2. c; 3. a; 4. b

Critical Thinking

Answers will vary. Students should support their ideas with reasons and examples.

Vocabulary Practice

A. 1. temperatures; 2. losses; 3. occurred; 4. frequent; 5. forecasts

B. 1. b; 2. b; 3. a; 4. a

**Lesson 10B – Freaky Forces of Nature**

Answer Key:

Before You Read

A. 1. and 2. Answers will vary. Note that strange weather can include unusual events like heavy snowfall in places where there’s usually only light snowfall, or extreme events like flash floods or powerful storms.

B. 1. Strange Rain!; 2. Tornadoes of Fire; 3. Great Balls of Ice!

Reading Comprehension

1. c; 2. a; 3. b (lines 12–15); 4. b (line 21); 5. c; 6. a (lines 34–35)

Reading Skill

A. Paragraph 1: It was raining frogs! (cause, line 8), they found their streets filled with little jumping creatures (effect, line 9), a tornado passed over a lake (cause, lines 12–13), it sucked up animals that lived there (effect, line 14), the frogs were carried into the air (cause, lines 14–15), they were dropped in the Serbian town (effect, lines 14–15)

Paragraph 2: a wildfire reaches high temperatures (cause, line 18), causes the air to become hot and to rise (effect, line 19), cooler air rushes in to replace the hot air (cause, lines

19–20), This creates strong winds. (effect, line 20), winds suck up burning plants and even the fire (cause, line 21), a tornado of fire is produced (effect, line 23)

Paragraph 3: Hailstorms form (effect, line 33), raindrops high in the sky turn to pieces of ice (cause, lines 33–34), the ice pieces increase in size until the wind cannot hold them up (cause, lines 34–35), hailstones falling to the ground, often at speeds of over 160 kilometers an hour (effect, lines 36–37), there was nowhere to run (cause, line 38), They were all killed by hailstones (effect, lines 38–39)

B.1. e; 2. d; 3. c; 4. f; 5. b; 6. a

Critical Thinking

Answers will vary. Students should support their ideas with examples.

Vocabulary Practice

A. 1. weird; 2. rushing; 3. actually; 4. increase; 5. warning

B. 1. a; 2. a; 3. b; 4. a

**Viewing: Storm of the Century**

Answer Key:

Before You Watch

Answers will vary.

While You Watch

B. 1. a; 2. a; 3. a

After You Watch

A. 1. 2; 2. 1; 3. 2; 4. 3; 5. 1

B. 1. Answers will vary. The quote means that the destruction from Katrina completely changed the lives of many people in New Orleans.; 2. Answers will vary. Tropical storms are given names so it is easy to refer to one when more than one is occurring at the same time.

*Unit 11 – Giants of the Past*

**Warm Up**

Answer Key:

1. and 2. Answers will vary. Note that answers for Question 1 can include both dinosaurs and modern animals that have gone extinct.

**Lesson 11A – The Mammoth’s Tale**

Answer Key:

Before You Read

A. 1. extinct; 2. Ice Age; 3. tusks

B. Predictions may vary. In the end, the baby mammoth was put in a museum. Prior to being placed in a museum, it was taken, sold, picked up by a helicopter, examined, and sent to the

Netherlands and Japan.

Reading Comprehension

1. b; 2. a (lines 10–14); 3. c; 4. c; 5. a (lines 16 and 21); 6. c (line 21)

Reading Skill

A. 1. These pictures, P; 2. The paintings, A; 3. Mammoth tusks, P; 4. These tools, P; 5. People, A

B. 1. had eaten (active); 2. was taken (passive);3. was sent (passive); 4. will explain (active)

Critical Thinking

Answers will vary. Students should support their opinions with reasons.

Vocabulary Practice

A. 1. imagine; 2. vanished; 3. further; 4. details; 5. perfect

B. 1. b; 2. a; 3. a; 4. a

**Lesson 11B – Sea Monsters**

Answer Key:

Before You Read

A. From left to right: 4. tail, 5. fin, 3. stomach, 1. jaws, 2. teeth

B. 1. three; 2. Possible answers include: one could see in the dark, one was especially frightening, and one followed others around.

Reading Comprehension

Multiple Choice. 1. c; 2. b; 3. b (line 20); 4. b (line 28); 5. c (lines 26–27); 6. c (lines 32–33)

Reading Skill

A. Living now, on land: elephant, crocodile

Living now, in water: crocodile, shark, whale

Extinct, on land: mammoth, Kronosaurus

Extinct, in water: Temnodontosaurus, Kronosaurus

B. Meaning of name: “cutting-tooth lizard”; “Kronos lizard”; “lord of the seas”

Unusual characteristics: had very large teeth and eyes; had teeth the size of bananas; had a very long neck and stones in its stomach

Special abilities: could easily see its food in the dark water; could catch smaller animals with its strong jaws; was able to get close to fish without being seen

Critical Thinking

Answers will vary. Students should support their ideas with reasons and examples. All three creatures lived in the sea, although the Kronosaurus also went on land. They were each very large and had unusual characteristics. All three were skilled at catching food.

Vocabulary Practice

A. 1. rise; 2. characteristics; 3. predators; 4. means; 5. chance; 6. figure out; 7. definitely

B. 1. characteristics; 2. means; 3. chance; 4. function

**Viewing: Days of the Dinosaur**

Answer Key:

Before You Watch

1. Answers will vary.; 2. Sauropods only ate vegetation. Other dinosaurs ate meat.; 3.

 Yes; 4. Possibilities include crocodiles and birds.; 5. How dinosaurs died out is actually not known for certain, although many scientists believe it was the result of a meteor that struck the Earth.; 6. Scientists learn about dinosaurs by studying fossils from the past.

While You Watch

B. 1. fossilized bones; 2. one meter long; 3. cold and dark; 4. birds

After You Watch

A. 1. F; 2. T; 3. T; 4. T; 5. F

B. 1. The narrator is trying to explain the timeline of the age of dinosaurs on Earth in comparison to that of humans.;

2. Answers will vary.

*Unit 12 - Technology*

**Warm Up**

Answer Key:

1. Answers will vary. Some examples of everyday technology include computers, printers, smartphones, TVs, home appliances, and cars. 2. Answers will vary. Students should support their ideas with examples.

**Lesson 12A – The Robots Are Coming!**

Answer Key:

Before You Read

A. Answers will vary.

B. Items mentioned in the passage that robots can actually do now include play soccer, walk, run, climb stairs, jump, walk up walls, and walk on water.

Reading Comprehension

1. a; 2. b; 3. b (line 16); 4. c (line 22); 5. a (line 25); 6. c (lines 28–29)

Reading Skill

A. 1. soccer (line 4); 2. help take care of children or the elderly (lines 6–7);

3. fight fires (line 7); 4. robot vacuum cleaners (line 12); 5. Honda’s ASIMO (line 12)

B. 1. d; 2. c; 3. b; 4. a

Critical Thinking

Students should support their opinions with examples. It is likely that robots will excel at simple tasks and jobs but not at ones that require creative thinking or innovation.

Vocabulary Practice

A. 1. simple; 2. rough; 3. alternative; 4. uncomfortable

B. 1. a; 2. a; 3. b; 4. a

**Lesson 12B – How Will We Live in 2035?**

Answer Key:

Before You Read

A. 1. Answers will vary. Students should be able to understand from the pictures that the passage talks about how daily life will be in the future, including home life and health.; 2. Answers will vary. Possible answers include: transportation, entertainment, communication, and police work.

B. The following topics are talked about in the passage: health, clothing, food, transportation.

Reading Comprehension

1. b; 2. a (lines 4–5); 3. c; 4. b; 5. c (line 15); 6. a (lines 19–20)

Reading Skill

A. 1. react; 2. international; 3. prepaid

B. 1. painful; 2. assessment; 3. invention

C. 1. anti-aging, helps you fight the effects of aging; 2. treatment, the act of getting treated; 3 youthful, full of youth

Critical Thinking

Answers will vary. Some of the items already exist; however, they are not as advanced as the ones described in the passage.

Vocabulary Practice

A. 1. mirror; 2. grocery; 3. surroundings; 4. laboratory; 5. treatment; 6. program; 7. future; 8. Electricity

B. 1. program; 2. grocery; 3. laboratory; 4. future

**Viewing: Deep-Sea Robot**

Answer Key:

Before You Watch

Predictions will vary. Actual answers: record videos, pick up small animals, take photos, suck things up, measure things, cut things, dig in the ocean floor

After You Watch

A. 1. b; 2. b; 3. a; 4. c

B. 1. a; 2. c; 3. e; 4. b; 5. d

C. Answers will vary. Students should support their ideas with reasons and examples.