4th grade reading worksheets

16 sheets, each passage with its questions, with the answer keys together from page 18.

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Choosing Teams

Read the story. Then answer the questions in full sentences.

Name _____ Date _____

Theo had waited all year to be a team captain in gym class, and on Friday Coach Rivera finally called his name. The other captain was Ruby, the fastest runner in the whole fourth grade. Theo knew exactly whom he would pick first. His best friend, Felix, was standing right in front, grinning and giving him a thumbs-up.

But Theo also noticed Hamid, a new boy who had joined the class that week. Hamid stood alone at the back with his hands in his pockets, staring at the floor. Theo remembered his own first day at this school, when nobody had known his name and he had been picked last for kickball. He could still remember how hot his face had felt.

"Theo, it's your pick," said Coach Rivera. Theo took a deep breath and said, "Hamid." Felix's smile disappeared for a second, but then Ruby picked him, and the soccer game began. Hamid turned out to be a terrific goalie. He blocked three shots in a row, and Theo's team won by one goal.

After class, Felix walked over and said quietly, "You didn't pick me." Theo explained that he had known Felix would get picked anyway, but Hamid didn't know anybody yet. Felix thought about it for a moment and then nodded. At lunch, he waved Hamid over to their table, and by the end of the week, the three boys were practicing goal kicks together at every recess.

1. **What choice did Theo have to make when he became captain?**

2. **Theo remembered "how hot his face had felt" on his first day. What does this phrase tell you about how he felt, and which words help you tell?**

3. **Why did Theo pick Hamid first?**

4. **Do you think Theo was still a good friend to Felix? Why or why not?**

The Dog by the Fountain



Read the story. Then answer the questions in full sentences.

Name _____ Date _____

On her way home from school, Ines saw a small brown dog sitting alone by the park fountain. It wore a green collar but had no tag, and when Ines knelt down, it wagged its tail and licked her hand. Ines had wanted a dog for as long as she could remember, but her mom always said their apartment was too small. Now a dog had found her instead, and maybe she could secretly keep it in her bedroom, at least for a little while.

Then she noticed the dog's neat, brushed fur. Someone was taking good care of this dog, and that person might be searching for it right now. Ines carried the dog home and explained everything to her mother. Together they made signs that said "FOUND: Small Brown Dog" with their phone number, and they hung them at the park, the bus stop and the corner store.

The next afternoon, the phone rang, and it was Mr. Haddad, an elderly neighbor who lived three streets away. His dog, Pepper, had slipped out of the gate while he was getting the mail. When he arrived, Pepper jumped straight into his arms. "My knees are not what they used to be," Mr. Haddad said, "and Pepper needs longer walks than I can give her. Would you like to walk her on Saturdays?"

Ines looked hopefully at her mother, who smiled and nodded. From then on, Ines and Pepper walked around the park together every Saturday morning.

1. **What choice did Ines have to make after she found the dog?**

2. **Pepper "slipped out of the gate." What does "slipped out" mean, and which words help you tell?**

3. **Why did Ines decide that the dog probably had an owner?**

4. **Do you think Ines made a good choice? Give a reason from the story.**

The Monarch's Long Trip



Read the passage. Then answer the questions in full sentences.

Name _____ Date _____

A monarch butterfly begins life as a tiny egg on a milkweed plant. The mother lays her eggs there because milkweed is the only food her caterpillars can eat. After two to five days, a caterpillar hatches.

The caterpillar eats milkweed leaves and grows for about two weeks. Then it turns into a green and gold chrysalis. Inside, it changes. Six to fourteen days later, an adult butterfly comes out.

Most monarch butterflies live only two to five weeks. But in the fall, monarchs from the east of North America may fly more than 2,000 miles to reach the mountains of central Mexico. They can fly up to about 70 miles in a day.

There they spend the winter in fir trees. These travelers can live six to nine months.

1. **What is the only food monarch caterpillars can eat?**

2. **What colors is a monarch's chrysalis?**

3. **What happens after the caterpillar has grown for about two weeks?**

4. **Why do you think the monarchs that fly to Mexico need to live longer than other monarchs?**

Why Leaves Change Color



Read the passage. Then answer the questions in full sentences.

Name _____ Date _____

In spring and summer, a tree's leaves are busy making food. They do it in tiny cells that hold chlorophyll. Chlorophyll takes in energy from sunlight, and the leaf uses that energy to turn water and carbon dioxide, a gas in the air, into food for the tree. Chlorophyll is also what makes leaves green.

Leaves have yellow and orange colors in them too. For most of the year there is so much green that we cannot see them.

In the fall, the days get shorter and the air gets cooler, and the leaves stop making food. The chlorophyll breaks down, the green fades, and the yellow and orange colors show at last.

Some trees make new colors in the fall: reds and purples. Dogwoods and sumacs turn reddish purple. Cool days that stay above freezing help maples turn bright red, but an early frost makes the red weaker.

1. **What makes leaves green?**

2. **Which trees turn reddish purple in the fall?**

3. **Why do leaves turn yellow and orange in the fall?**

4. **If there is an early frost this fall, what might the maples look like? Why?**

What Makes an Earthquake?



Read the passage. Then answer the questions in full sentences.

Name _____ Date _____

An earthquake is a strong shaking of the ground. It is caused by movements in Earth's outermost layer.

Earth has four layers: a solid crust, a hot, nearly solid mantle, a liquid outer core and a solid inner core. The crust and the stiff top of the mantle are broken into giant puzzle pieces called tectonic plates. They drift on the mantle below, which flows very slowly.

The plates never stop moving, and this puts stress on the crust. When the stress gets too large, the rock cracks. These cracks are called faults. An earthquake is a sudden movement of the crust at a fault. The shaking can be felt hundreds or even thousands of miles away.

An earthquake's energy travels through Earth as vibrations called seismic waves. Scientists measure them with a seismometer, which records the waves as zig-zag lines.

1. **What are Earth's four layers?**

2. **What does a seismometer do?**

3. **How does a fault form?**

4. **Why can people far from an earthquake sometimes feel it?**

The Leatherback Sea Turtle

Read the passage. Then answer the questions in full sentences.

Name _____ Date _____

The leatherback is the largest turtle in the world. A grown leatherback weighs 750 to 1,000 pounds and is 5 to 6 feet long. It is the only sea turtle without scales and a hard shell. Instead it has tough, rubbery skin, which gives it its name. Leatherbacks have looked the way they do now since the age of the dinosaurs.

Leatherbacks eat soft animals, such as jellyfish. They have no crushing beak like other sea turtles; spines in their mouth and throat point backward to hold on to slippery food.

They are strong swimmers. Some swim more than 10,000 miles a year, and they can dive about 4,000 feet deep, deeper than any other turtle.

Females come out of the sea at night to lay their eggs on warm beaches. A balloon that ends up in the ocean can look like a jellyfish to a hungry turtle, so it helps never to let balloons go outside.

1. **How did the leatherback get its name?**

2. **How deep can a leatherback dive?**

3. **Why can a balloon in the ocean hurt a leatherback?**

4. **What do you think people can do to help leatherbacks?**

Six Simple Machines



Read the passage. Then answer the questions in full sentences.

Name _____ Date _____

A simple machine helps people do a job. It changes the direction something moves, or how much force the job takes. There are six of them.

A lever rests on a pivot point, called a fulcrum, and moves a load, like a seesaw. A wheel and axle turns or moves a load: a bicycle has them, and so does a clock. A pulley uses a wheel to change the direction something moves, as in an elevator or a water well.

An inclined plane is a slanted surface, like a ramp or stairs, that makes things easier to move. A wedge, like a knife, splits things apart. A screw helps fasten two things together; the cap on a bottle is a screw too.

Two or more simple machines working together make a compound machine. A crane, a bulldozer and a pencil sharpener you turn by hand are all compound machines.

1. **How many simple machines are there?**

2. **What is the pivot point of a lever called?**

3. **Which simple machine is a ramp, and what does it do?**

4. **A pair of scissors is a compound machine. What does that mean?**

What Is a Cell?



Read the passage. Then answer the questions in full sentences.

Name _____ Date _____

Cells are the building blocks of all living things. Your body is made of trillions of them. Cells give your body its structure. They take in nutrients from food and turn them into energy, and they can make copies of themselves.

A cell has many parts, and each part has its own job. The nucleus is the cell's command center. It tells the cell when to grow, when to divide and when to die. It also holds the cell's DNA, the instructions passed on from parents to children.

Around the nucleus is the cytoplasm, a fluid like jelly. Tiny parts called mitochondria turn the energy in food into a form the cell can use. Ribosomes make proteins. Lysosomes are the cell's recycling center: they break down worn-out parts and any bacteria that get in.

The outside of the cell is a thin lining called the cell membrane. It keeps the cell apart from what is around it, but it lets materials come in and go out.

1. **What is the cell's command center?**

2. **Which part of a cell makes proteins?**

3. **Why are lysosomes called the cell's recycling center?**

4. **Some cells need a lot of energy for their work. Which part do you think they have many of, and why?**

The Volcano That Grew on a Farm



Read the passage. Then answer the questions in full sentences.

Name _____ Date _____

In 1943, a new volcano started to grow on a farm near the village of Parícutin in Mexico.

It was a cinder cone, the simplest kind of volcano. Gas blew the melted rock into the air in small pieces, which cooled and fell around the opening as cinders. Little by little, they built a cone 1,200 feet high, with a crater at the top shaped like a funnel.

When most of the gas had escaped, the explosions stopped. Then the melted rock poured out quietly and ran down the sides of the cone as lava flows.

Parícutin was active for 9 years. Its ash covered about 100 square miles, and it destroyed the town of San Juan. Scientists came from many parts of the world to study it.

1. **Where did the new volcano start to grow?**

2. **How many years was Parícutin active?**

3. **Why did the explosions stop?**

4. **Why do you think scientists came from many parts of the world to study Parícutin?**

Why Is the Sky Blue?



Read the passage. Then answer the questions in full sentences.

Name _____ Date _____

Light from the Sun looks white, but it is really made up of all the colors of the rainbow. A prism, a specially shaped crystal, separates white light into all its colors.

Light travels in waves, some short and choppy, some long and lazy. Blue light waves are shorter than red ones. Light goes in a straight line unless something gets in the way: a mirror reflects it, a prism bends it, and the gases in the air scatter it.

The gases and tiny bits in Earth's air scatter sunlight in all directions. Blue light is scattered more than the other colors, because it travels as shorter, smaller waves. That is why the sky looks blue most of the time.

At sunset, the light passes through more air to reach you. Even more of the blue is scattered, and the reds and yellows pass straight through. On Mars, the daytime sky is orange or reddish, and the sky around the setting Sun turns blue-gray.

1. **What is the light from the Sun really made of?**

2. **What three things can happen to light when something gets in its way?**

3. **Why does the sky look red and yellow at sunset?**

4. **Blue light waves are shorter than red ones. Why does that make the sky blue and not red?**

What Is a Comet?



Read the passage. Then answer the questions in full sentences.

Name _____ Date _____

A comet is an icy object made of dust and ice that orbits the Sun. Comets are leftovers from the time the solar system formed, 4.6 billion years ago.

Most comets are far out in the solar system. Some are in the Kuiper Belt, a wide disk beyond Neptune, and take less than 200 years to go around the Sun. Others are in the Oort Cloud, at the outer edge of the solar system, and take much longer.

The heart of a comet is a frozen core called the nucleus, a ball of dust and ice usually less than 10 miles across. Close to the Sun, the comet heats up and its ice turns to gas. The gas and dust make a huge, fuzzy cloud around the nucleus, called the coma.

Sunlight and particles from the Sun push the dust and gas into a bright tail millions of miles long. A comet has two tails, one of dust and one of gas, and both point away from the Sun.

1. **What is a comet made of?**

2. **What is the coma?**

3. **Why does a comet grow a coma when it comes close to the Sun?**

4. **A comet is near the Sun. Which way do its tails point? Why?**

How a Hurricane Grows

Read the passage. Then answer the questions in full sentences.

Name _____ Date _____

Hurricanes are the most violent storms on Earth. Scientists call them tropical cyclones. Only the ones that form over the Atlantic Ocean or the eastern Pacific Ocean are called hurricanes.

A hurricane is like a giant engine that runs on warm, moist air. That is why hurricanes form only over warm ocean water near the equator. The warm air rises and cools, and the water in it forms clouds. More air swirls in to take its place. The clouds and wind spin and grow, fed by the ocean's heat.

As the storm spins faster, a calm, clear eye forms in the middle. When the winds reach 39 miles per hour, the storm is called a tropical storm. At 74 miles per hour, it is a hurricane.

Over land, a hurricane usually gets weaker, because the warm ocean water no longer feeds it. But it can still bring many inches of rain and a lot of wind damage far inland.

1. **Where do hurricanes form?**

2. **What is the middle of a hurricane like?**

3. **Why does a hurricane usually get weaker over land?**

4. **A storm over the Atlantic Ocean has winds of 50 miles per hour. What is it called? Why?**

Venus, the Hottest Planet



Read the passage. Then answer the questions in full sentences.

Name _____ Date _____

Venus is the second planet from the Sun, between Mercury and Earth. It is a rocky planet, almost as big as Earth.

Venus is not the closest planet to the Sun, but it is the hottest. Its thick atmosphere is full of carbon dioxide, a gas that traps heat, and its clouds are made of sulfuric acid. It is so hot there that lead would melt into puddles.

Venus spins very slowly, and the opposite way from Earth and most other planets. One spin takes about 243 Earth days, but a trip around the Sun takes only 225. So a day on Venus is longer than its year! And because it spins backward, the Sun rises in the west.

Like Mercury, Venus has no moons. It is easy to see in the sky without a telescope, so people have known it since ancient times. The Magellan spacecraft used radar to see the ground hidden under its clouds.

1. **What is Venus's thick atmosphere full of?**

2. **On Venus, where does the Sun rise?**

3. **Mercury is closer to the Sun. Why is Venus hotter?**

4. **A day on Venus is longer than its year. How can that be?**

Saturn and Its Rings

Read the passage. Then answer the questions in full sentences.

Name _____ Date _____

Saturn is the sixth planet from the Sun, so its neighbors are Jupiter and Uranus. Like Jupiter, it is a gas giant, made mostly of hydrogen and helium.

Saturn is not the only planet with rings, but it has a lovely set: seven main rings with spaces between them. Each ring is made of groups of tiny ringlets, and the ringlets are made of chunks of ice and rock.

In the 1600s, Galileo Galilei looked at Saturn through a telescope. At first he thought he saw three planets, or a planet with handles. Now we know that the "handles" were Saturn's rings.

A day on Saturn goes by in just 10.7 hours, but a year there is as long as 29 Earth years. People have known about Saturn since ancient times, because it can be seen without a powerful telescope.

1. **Which two planets are Saturn's neighbors?**

2. **What are Saturn's rings made of?**

3. **What did Galileo first think he saw, and what was it really?**

4. **Would you have a birthday more often on Earth or on Saturn? Why?**

Main idea and details

Write the main idea at the top. Under it, write the details that tell more about it or prove it.

Name _____ Date _____

Main idea

What is it mostly about?

Detail 1

Detail 2

Detail 3

In my own words

Put the main idea and the details together in a sentence or two.

Cause and effect

Write each cause, why something happens, and its effect, what happens because of it.

Name _____ Date _____

Cause Why did it happen?	→	Effect What happened?

Cause Why did it happen?	→	Effect What happened?

Cause Why did it happen?	→	Effect What happened?

Answer key

Choosing Teams

1. What choice did Theo have to make when he became captain?
   Whether to pick his best friend, Felix, or Hamid, the new boy, first.

2. Theo remembered "how hot his face had felt" on his first day. What does this phrase tell you about how he felt, and which words help you tell?
   He felt embarrassed. The clues are that nobody had known his name and he had been picked last for kickball.

3. Why did Theo pick Hamid first?
   He remembered being new and picked last himself, and Hamid did not know anybody. He also knew Felix would get picked anyway.

4. Do you think Theo was still a good friend to Felix? Why or why not?
   Sample answer: yes, because he knew Felix would be picked anyway, and he explained his reason honestly. Felix understood and even invited Hamid to their lunch table.

Answer key

The Dog by the Fountain

1. What choice did Ines have to make after she found the dog?
   Whether to keep the dog secretly in her bedroom, or to try to find its owner.

2. Pepper "slipped out of the gate." What does "slipped out" mean, and which words help you tell?
   Got out quietly without anyone noticing. The clue is that it happened "while he was getting the mail," so Mr. Haddad was not watching.

3. Why did Ines decide that the dog probably had an owner?
   Its fur was neat and brushed, so someone was taking good care of it.

4. Do you think Ines made a good choice? Give a reason from the story.
   Sample answer: yes. Pepper was happy to see Mr. Haddad again, and because Ines was honest, she got to walk Pepper every Saturday, which was almost like having a dog of her own.

Answer key

The Monarch's Long Trip

1. What is the only food monarch caterpillars can eat?
   Milkweed.

2. What colors is a monarch's chrysalis?
   Green and gold.

3. What happens after the caterpillar has grown for about two weeks?
   It turns into a chrysalis, and six to fourteen days later an adult butterfly comes out.

4. Why do you think the monarchs that fly to Mexico need to live longer than other monarchs?
   Sample answer: the trip is so long, and the winter so long to wait out, that a butterfly living only a few weeks could not finish it.

Answer key

Why Leaves Change Color

1. What makes leaves green?
   Chlorophyll.

2. Which trees turn reddish purple in the fall?
   Dogwoods and sumacs.

3. Why do leaves turn yellow and orange in the fall?
   The leaves stop making food and the chlorophyll breaks down, so the green fades and the yellow and orange that were there all along can be seen.

4. If there is an early frost this fall, what might the maples look like? Why?
   Sample answer: their red would be less bright, because an early frost makes the red weaker.

Answer key

What Makes an Earthquake?

1. What are Earth's four layers?
   The crust, the mantle, the outer core and the inner core.

2. What does a seismometer do?
   It measures seismic waves and records them as zig-zag lines.

3. How does a fault form?
   The moving plates put stress on the crust, and when the stress gets too large, the rock cracks.

4. Why can people far from an earthquake sometimes feel it?
   Sample answer: because its energy travels through Earth as seismic waves, which can be felt hundreds or even thousands of miles away.

Answer key

The Leatherback Sea Turtle

1. How did the leatherback get its name?
   From its tough, rubbery skin.

2. How deep can a leatherback dive?
   About 4,000 feet, deeper than any other turtle.

3. Why can a balloon in the ocean hurt a leatherback?
   The turtle can take it for a jellyfish and try to eat it.

4. What do you think people can do to help leatherbacks?
   Sample answer: keep balloons and plastic out of the ocean, and leave turtles and their nests alone on the beach.

Answer key

Six Simple Machines

1. How many simple machines are there?
   Six.

2. What is the pivot point of a lever called?
   The fulcrum.

3. Which simple machine is a ramp, and what does it do?
   An inclined plane. It makes things easier to move.

4. A pair of scissors is a compound machine. What does that mean?
   Sample answer: two or more simple machines work together in it.

Answer key

What Is a Cell?

1. What is the cell's command center?
   The nucleus.

2. Which part of a cell makes proteins?
   The ribosomes.

3. Why are lysosomes called the cell's recycling center?
   They break down worn-out parts of the cell, and bacteria that get in.

4. Some cells need a lot of energy for their work. Which part do you think they have many of, and why?
   Sample answer: mitochondria, because they turn the energy in food into a form the cell can use.

Answer key

The Volcano That Grew on a Farm

1. Where did the new volcano start to grow?
   On a farm near the village of Parícutin in Mexico.

2. How many years was Parícutin active?
   9 years.

3. Why did the explosions stop?
   Most of the gas in the melted rock had escaped.

4. Why do you think scientists came from many parts of the world to study Parícutin?
   Sample answer: they could watch a volcano grow from its very start, which helped them learn how volcanoes work.

Answer key

Why Is the Sky Blue?

1. What is the light from the Sun really made of?
   All the colors of the rainbow.

2. What three things can happen to light when something gets in its way?
   A mirror reflects it, a prism bends it, and the gases in the air scatter it.

3. Why does the sky look red and yellow at sunset?
   Because the light passes through more air, so even more of the blue is scattered, and the reds and yellows pass straight through.

4. Blue light waves are shorter than red ones. Why does that make the sky blue and not red?
   Sample answer: the air scatters shorter waves more, so blue light is spread all over the sky while red light goes straight on.

Answer key

What Is a Comet?

1. What is a comet made of?
   Dust and ice.

2. What is the coma?
   A huge, fuzzy cloud of gas and dust around the nucleus.

3. Why does a comet grow a coma when it comes close to the Sun?
   Because it heats up and its ice turns to gas, and the gas and dust make a cloud around the nucleus.

4. A comet is near the Sun. Which way do its tails point? Why?
   Sample answer: away from the Sun, because sunlight and particles from the Sun push the dust and gas away from it.

Answer key

How a Hurricane Grows

1. Where do hurricanes form?
   Only over warm ocean water near the equator.

2. What is the middle of a hurricane like?
   It is calm and clear. It is called the eye.

3. Why does a hurricane usually get weaker over land?
   Because the warm ocean water no longer feeds it.

4. A storm over the Atlantic Ocean has winds of 50 miles per hour. What is it called? Why?
   Sample answer: a tropical storm, because its winds have reached 39 miles per hour but not yet 74, when it would be a hurricane.

Answer key

Venus, the Hottest Planet

1. What is Venus's thick atmosphere full of?
   Carbon dioxide, a gas that traps heat.

2. On Venus, where does the Sun rise?
   In the west.

3. Mercury is closer to the Sun. Why is Venus hotter?
   Because its thick atmosphere of carbon dioxide traps the heat.

4. A day on Venus is longer than its year. How can that be?
   Sample answer: Venus spins so slowly that one turn takes about 243 Earth days, but it goes around the Sun in only 225, so it finishes its trip around the Sun before it has spun around once.

Answer key

Saturn and Its Rings

1. Which two planets are Saturn's neighbors?
   Jupiter and Uranus.

2. What are Saturn's rings made of?
   Groups of tiny ringlets, which are made of chunks of ice and rock.

3. What did Galileo first think he saw, and what was it really?
   Three planets, or a planet with handles. The "handles" were Saturn's rings.

4. Would you have a birthday more often on Earth or on Saturn? Why?
   Sample answer: on Earth, because one year on Saturn is as long as 29 Earth years.