

Science and Social Studies is *Reading Mastery Plus IV*

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Reading Mastery Plus IV

Light

Facts About Light

1. The sky around Earth looks blue because there is a layer of air around Earth – 58
2. Light is the fastest thing there is and travels millions of miles in an hour – 102
3. If you could travel at the speed of light, you would go around Earth almost eight times in one second – 102
4. The sun is 93 million miles from Earth – 102
5. Light travels at the speed of 186 thousand miles per second – 102
6. Light that hits a magnifying glass bends – 125

Sound

1. The speed of light is faster than the speed of sound—102
2. The speed of sound – 103

Pressure

Water Pressure

1. Pressure becomes greater, the deeper underwater you go – 86
2. The bends occur when a person comes up from deep water very fast, and the pressure on the body goes down very fast – 87, 114
3. Pressure inside a bottle of soda pop – 87
4. The pressure is greater because the water above you weighs more – 114

Human Body

Circulatory System

1. Your heart is about as big as your fist – 121
2. Ribs protect the heart and the lungs –121
3. Lungs take in the air when you breathe – 121
4. Blood moves through tubes called blood vessels – 122
5. The heart pumps blood through the body night and day – 122
6. When the heart pumps, the blood in the blood vessels moves – 122
7. The body is burning all the time – 122
8. Oxygen is part of the air you breathe –122
9. Blood is black when it is in a blood vessel because it has no oxygen in it – 122
10. The heart has two chambers for blood to move through – 122

Ears

1. There are tiny hairs in the ear that vibrate and transmit sound to nerves – 127
2. High sounds are picked up at the small end of the chamber in the inner ear – 127

Eyes

1. The eye works like a magnifying glass by bending light – 125, 126
2. The pupil is a hole in the eye where light enters - 126
3. The back of the eyeball is called the retina – 126
4. The retina can feel light – 127
5. The lens of the eye bends the light that comes into the eye –127
6. The camera works a lot like an eye – 133
7. Both the eye and the camera have a lens and an iris – 133

Nerves

1. Every part of the body must have two kinds of nerves – 124, 125
 - a. One kind of nerve sends messages to the brain—124, 125
 - b. One kind of nerve sends messages from the brain to the rest of the body—124, 125
2. The cerebrum is the part of the brain that does the thinking – 125
3. Nerves carry messages from the brain to other parts of the body – 124
4. The bundle of nerves that go through the middle of the backbone is called the spinal cord – 125

Muscles

1. The muscle on the front of the upper arm is the biceps – 119
2. The muscle on the back of the upper arm is the triceps –119
3. When a muscle works, it pulls and gets shorter – 119
4. Muscles pull – 119
5. Muscles work in pairs – 119
6. Muscles are made of tiny cells – 123

The Human Skeleton

1. Bones and muscles work together – 121
2. Bones help make the body strong –121
3. There are 206 bones in the body – 121
4. The brain is inside the skull – 121

Space

The Solar System

1. The solar system is made up of the sun and nine planets – 53
2. Most of those planets have moons – 53
3. Earth is one of the nine planets in the solar system – 53

The Sun

1. The sun lights the earth – 6
2. Only half of the earth is in sunlight – 6
3. It is daytime on the side of the earth where you can see the sun – 6
4. The earth makes a complete circle around the sun one time every year - 9

5. The sun heats the earth – 8
6. Places on the earth that have more lines of heat are hotter than places that have fewer lines of heat – 8
7. The sun is in the middle of the solar system – 53
8. The sun is the only part of the solar system that is burning – 53
9. The sun gives heat and light to all the planets of the solar system – 53
10. The sun is one hundred times the size of the earth – 53, 117
11. The sun is a star – 117
12. The surface of the sun is made of flaming gases – 117

Planets

1. Mercury is the closest planet to the sun – 53
2. Pluto is the farthest planet away from the sun – 53
3. Saturn has 18 moons – 54, 62
4. Earth has one moon – 62
5. Earth is eight thousand miles through the middle – 117
6. Jupiter
 - a. Jupiter has 16 moons – 54, 62
 - b. Jupiter is the biggest planet in the solar system – 54
 - c. The surface of Jupiter is dark – 61
 - d. Jupiter is surrounded by a thick layer of grass – 61
 - e. Io is the moon that is closest to Jupiter – 62
 - f. It takes about 2 days for Io to go all the way around Jupiter – 62
 - g. There is no oxygen around Io and no oxygen around our moon – 62
7. Mars is smaller than Earth – 59
8. Mars is colder than Earth because it is much farther from the sun – 59

Galaxies

1. There are one hundred billion stars in our galaxy – 118
2. It takes light 100 thousand years to travel from one side of the galaxy to the other side – 118
3. There are millions of galaxies in the universe – 118
4. We live in the galaxy called the Milky Way – 118

Gravity

1. Gravity is the force that pulls things back to a planet – 58
2. When you drop something, gravity pulls it down to Earth – 58
3. Not all planets have the same amount of gravity – 58
4. Things weigh more on planets with stronger gravity – 58
5. Bigger planets have stronger gravity. Smaller planets have weaker gravity – 62
6. The stronger the gravity on a planet, the more somebody would weigh on that planet – 62

The Earth

Facts About the Earth

1. The earth is shaped like a ball – 4

2. The earth turns around once every 24 hours – 6
3. The earth is moving around the sun all the time – 9
4. The earth makes a complete circle around the sun one time every year – 9
5. It takes the earth 365 days to make a complete circle around the sun – 9
6. The earth is in different places at different seasons of the year – 9

The Equator

1. The hottest part of the earth is called the equator – 4
2. The equator is a pretend line that goes around the fattest part of the earth – 4
3. The farther you go from the equator, the colder it gets – 4
4. The equator is the hottest part of the earth because it receives more heat from the sun than any other place on the earth – 5

The Poles

1. The coldest parts of the earth are called the poles – 4
2. The poles are the parts of the earth that are farthest away from the equator – 4
3. The poles are the coldest places on the earth because they receive less heat from the sun than any other place on the earth – 5
4. The earth is tilted. The poles are not straight up and down – 11
5. The North Pole tilts away from the sun during winter – 11
6. During winter, there is no daylight at the North Pole – 11
7. If the pole tilts away from the sun, it's wintertime at the pole and there is no daylight – 11

The Tilt of the Earth

1. The pole on the top is called the North Pole and the pole on the bottom is called the South Pole – 4
2. The earth is tilted – 11
3. If the pole tilts away from the sun, it's wintertime at the pole and there is no daylight – 11
4. If the pole tilts toward the sun, it is summertime and there is no night – 11

Time

Names that Tell Time

1. Names that tell about time tell how long it takes for something to happen—13
2. A week is seven days long—13
3. An hour is another name that tells about time—13
4. When you count slowly, each number takes about one second—13
5. A minute is much smaller than an hour—13

Past, Present, and Future

1. Things that are happening now are in the present time – 54
2. Things that will happen are in the future time – 54

Eras

1. Dinosaur skeletons are found in the Mesozoic layer of earth – 23

2. Dinosaurs lived during the Mesozoic era – 138
3. The Mesozoic era started about 235 million years ago – 138

Ships

Identifying Parts of a ship

1. Stern – 25 (*picture*)
2. Galley – 25 (*picture*)
3. Engine room – 25 (*picture*)
4. Mast – 25 (*picture*)

Animals

Animals from Africa

1. Baboons live in large groups called troops – 135
2. A leopard has spots – 135
3. A porpoise is in the same family as whales – 135

Facts About Geese

1. Geese are birds – 1
2. Snow geese are white – 1
3. Canadian geese are gray, black, and white – 1
4. Baby geese hatch from eggs in June – 1
5. Most geese live about 30 years – 1
6. Geese live in flocks that may have more than 50 geese in them – 2
7. Geese migrate south in the fall because the lakes and rivers freeze in Canada – 2
8. Most wild geese are born in Canada and spend every summer in Canada – 2
9. Flying to the north and south yearly is called migration – 2
10. Geese can fly over 5 miles high – 3
11. Geese can fly one mile a minute – 3

Facts About Dinosaurs

1. Some dinosaurs were much bigger than elephants – 23
2. No dinosaurs are alive today – 23

Kinds of Dinosaurs

1. Tyrannosaurus was about 20 feet tall – 24
2. Triceratops had horns and armor – 24
3. The Plateosaurus was over 20 feet long – 138

Maps and Geography

Identifying Directions

1. Maps always show four directions – 3
2. North is always at the top of the map – 3

3. South is always at the bottom of the map – 3
4. Using a key to tell distance – (project after Lesson 10)

Identifying Places on a Map

1. Locating Canada and the United States – 3
2. Locating Michigan and Kentucky – 7
3. Locating Alaska – 12

Facts About Africa

1. Africa has a wet season and a dry season – 137
2. The veldt is a great field of grass that extends for many miles – 137

Facts About the North Pole

1. It is dark at the North Pole throughout the whole winter – 131
2. The sun shines all the time during summer at the North Pole – 131
3. There is no land at the North Pole—only snow and ice – 132

Facts About the South Pole

1. There is a great mass of land under the South Pole – 133
2. The South Pole is five million square miles – 133

Facts About Japan

1. Japan is a country that is west of the United States – 52
2. The US is on one side of the Pacific Ocean and Japan is on the other – 52
3. Japan is much smaller than the state of Alaska – 52
4. About 127 million people live in Japan – 52
5. Tokyo is the largest city in Japan – 56

Alaska

Facts about Alaska

1. Alaska is a state of the United States, but it is far north of the main part of the United States – 12
2. Types of animals in Alaska – 13
3. If you live in Alaska, the days get very short in the winter and very long in the summer – 13
4. The animals in Alaska are most dangerous in the spring – 14
5. Polar bears, wolves, and walruses are dangerous – 14
6. Ice floes melt in the spring – 17

Facts About the Iditarod

1. The Iditarod is a sled-dog race that starts in Anchorage, Alaska, and ends in Nome, Alaska – 91
2. The Iditarod covers a distance of more than 11 hundred miles – 91
3. A musher is a person who drives a team of sled dogs— 91

4. In the Iditarod a musher can't have more than sixteen dogs –91
5. The first pair of dogs in the team are the lead dogs – 91
6. The pair of dogs just behind the lead dogs are called swing dogs – 91
7. The pair of dogs closes to the sled are called wheel dogs – 91
8. Gang lines and tug lines – 91
9. The rules of the Iditarod require every dog to wear booties on its feet to protect them – 92
10. Mushers steer dogs by yelling commands to them – 92
11. Susan Butcher was a woman who entered the Iditarod 17 times and won four times- 95
12. Checkpoints are places along the Iditarod trail where mushers can rest their teams, make repairs and feed their dogs – 96
13. Every musher must take a 24-hour rest and two eight-hour rests at checkpoints along the Iditarod – 98

Eskimos

1. Eskimos live near the North Pole in Canada and Alaska – 12
2. The dogs that pull Eskimos on sleds are called sled dogs – 12
3. The boat that Eskimos use in the summer is called a kayak – 12

The World Around Us

Clouds

1. Clouds are made up of tiny drops of water – 21
2. In clouds that are very high, the water drops are frozen – 21
3. Storm clouds are flat on the bottom, but they go up very high – 21
4. Hailstones are formed when water drops freeze and move to the top of the cloud – 21

Volcanoes

1. A volcano is a mountain that is made of hot melted rock from inside the earth – 33
2. The melted rock moves up to the surface of the earth, then cools and becomes hard - 33
3. Sometimes a volcano explodes – 33

Whirlpools

1. Whirlpools are made up of moving water – 27
2. A whirlpool is shaped like a funnel: wide on top and narrow on the bottom – 27
3. The water in a whirlpool spins around – 27
4. Something caught in a whirlpool goes around as it moves down – 27

The Bermuda Triangle

1. The Bermuda Triangle is in the Atlantic Ocean – 24
2. Hundreds of ships have been sunk or lost in the Bermuda Triangle – 24
3. There are whirlpools in the Bermuda Triangle – 24

Drifting

1. Winds make things drift – 18
2. Ocean currents also make things drift – 18

Snowflakes

1. No two snowflakes are the same – 132
2. All snowflakes have six spokes – 132

The Ocean

Fact About Coral Reefs

1. Coral is made up of the skeletons of tiny animals that live and die in one place – 84
2. The coral is easy to destroy but takes years and years to grow back – 84
3. There are more than 20 different kinds of coral – 84
4. Coral is made of millions and millions of small sea animals – 114
5. The deepest part of the ocean is over 6 miles deep – 116, 117

Animals that Live in the Ocean

1. Killer Whales
 - a. Killer whales are about 12 meters long. Most other whales are much longer than killer whales – 16
 - b. Killer whales are not fish. Whales are warm-blooded – 16
 - c. Killer whales are very smart – 16
 - d. Killer whales hunt in packs. They kill larger whales, polar bears, seals or any other animal that is in the water – 16
2. Facts About Fish
 - a. Fish are cold-blooded animals – 115
3. Facts About Barracudas
 - a. Barracudas swim in large school and they grow to a length of almost 2 meters – 88
 - b. A barracuda's mouth is filled with sharp teeth, and barracudas have been known to attack swimmers and kill them – 88
4. Facts About Squid
 - a. A squid will grow to the size of a big tree – 115
 - b. The squid moves by squirting out water – 115
 - c. The arms of a squid are called tentacles – 115
 - d. Tentacles have little cups that stick to various surfaces – 115
5. Facts About Blue Whales
 - a. Whales are warm-blooded animals – 115
 - b. They are the largest animals in the world—weighing more than ten elephants – 115
 - c. The blue whale weighs more than ten elephants and it is much longer than a killer whale – 117
 - d. Blue whales are bigger than killer whales – 22