

Non-Fiction Re-Tell Rope

Main Topic

"This story is mostly about..."

Re-Tell (in your own words)

1st Key Idea or Event

"First..."

2nd Key Idea or Event

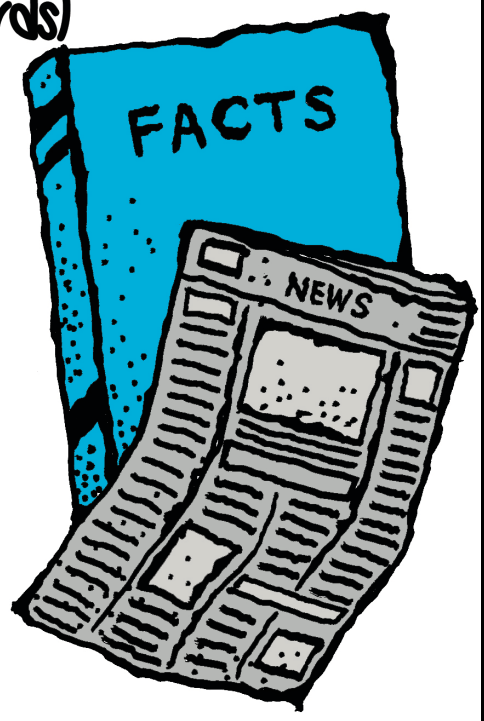
"Next..."

3rd Key Idea or Event

"Last..."

Details

Most Important thing learned



Fiction Re-Tell Rope

Characters

Setting

Plot

Re-tell (in your own words)

1st Event

"First..."

2nd Event

"Next..."

3rd Event

"Last..."



States of Matter

Name: _____



- | | | | |
|-----------|------------|--------------|----------|
| •matter | •mass | Power Words! | |
| •property | •solids | | •liquids |
| •gases | •container | | |
| •oxygen | •helium | | |

After reading, find the _____ and color them _____.

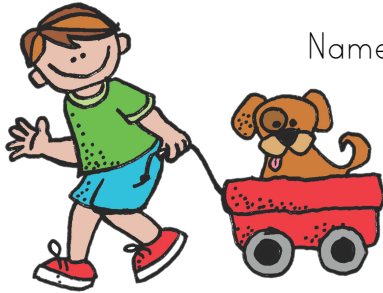
What is *matter*? All living and non-living things are made of matter. Everything that takes up space is made of matter. Even you are made of matter! A *property* is a way to describe matter, such as how it looks and what it feels like. We can also describe how much *mass* it has and what type of matter it is. Matter that is heavy or large has more mass than matter that is smaller or lighter. There are three main types of matter: *solids*, *liquids*, and *gases*.

A solid is matter that holds its own shape. Solids tend to be hard and do not change their shape much. A chair, a rock, and ice are examples of solids. Even you are a solid!

A liquid is a type of matter that does not have its own shape. Liquids flow, can often be poured, and can take the shape of whatever container they are in. Water, milk, and paint are examples of liquids.

A gas is like a liquid because it flows and takes the shape of its container. The air around us is made of different gases. Gases can be invisible or have a smell. *Oxygen* is an important gas in the air that we need to breathe. *Helium* is a gas that is very light. When we fill balloons with helium, they float because helium is lighter than the other gases around the outside of the balloon. Even the Sun is made of burning gases!

Forces: Push and Pull



Name: _____

Power
Words!

•objects •position
•motion •force •friction

After reading, find the _____ and color them _____.

Objects can move. The *position* of an object tells us where an object is located. A pencil may be on top of your desk. That is the pencil's *position* or location.

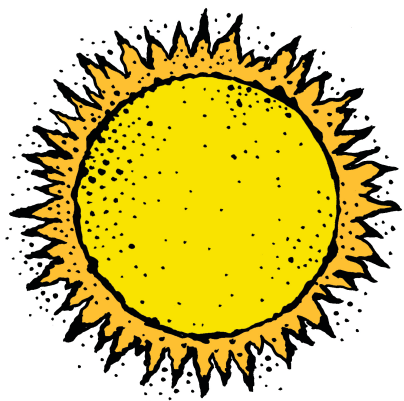
Motion is a change in the position of an object. When you push the pencil on top of your desk, it will put the pencil in *motion*. This changes the pencil's *position*. Any time something travels or moves around, it is in motion. When you ride your bike down the street, you are in motion! Things are in motion when they move back and forth, when they move side to side, and when they move up and down. Speed tells us how fast something is moving.

A force is a push or pull that can change the way something moves. You can push a friend in a swing, or pull a wagon behind you. It takes a pull to tug your backpack up to place it on your shoulders! When you throw a ball, you are pushing it through the air! It takes more force to move a heavy object. For example, it is harder to push a bowling ball than it is to push a baseball. Magnets can push or pull other metals!

Friction is a force that slows down moving things. Friction pushes against an object to slow its motion. When you ice skate on smooth ice, there is very little friction, so you can skate quickly. When you skate on a rough surface, there is a lot of friction, so it slows your motion. Dragging your feet while riding a bike creates friction that slows you down. Forces can affect us in many ways!

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The Sun



Name: _____

- | | |
|--------------|--------------------|
| •gases | •Solar System |
| •orbit | •energy •wasteland |
| •water cycle | •evaporates |
| •seasons | |

Power
Words!

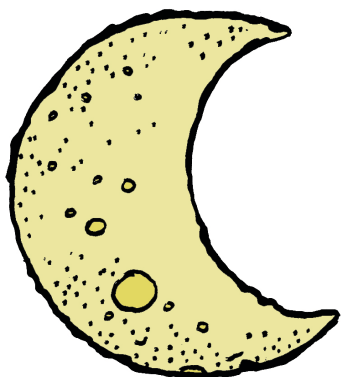
After reading, find the _____ and color them _____.

The Sun is a star. A star is a body made of burning hot 14
gases. The Sun is at the center of our *Solar System*, which 26
 includes the Sun and all the planets that *orbit* around the Sun. The 39
 Sun is a lot bigger than our Earth, but it is smaller than some 53
 other stars. Many stars may look smaller than the Sun, but that is 66
 only because they are farther away than the Sun. 75

The burning hot gases of the Sun give off a lot of *energy*. 88
 The Sun provides light and heat for the Earth. Without the Sun, 100
 the Earth would be a dark and frozen wasteland where no life 112
 could survive. 114

Almost everything on Earth depends on the Sun's energy. 123
 Plants use the Sun's energy to grow. Animals eat plants, and 134
 other animals eat those animals. The Sun also powers the *water* 145
cycle. The Sun warms water and the water *evaporates* into the 156
 air. Then water droplets gather in the air to form clouds. The 168
 water returns back to the Earth in the form of rain or snow. 181

Because the Earth is tilted as it orbits the Sun, the Sun's 193
 rays reach the Earth in different ways at different times of the 105
 year. These changes create the four seasons on Earth: Spring, 115
 Summer, Winter, and Fall. 119



The Moon

Name: _____

- | | | |
|----------------|-----------|--------------|
| •Solar System | •orbits | Power Words! |
| •rotates | •phases | |
| •Crescent Moon | •New Moon | |
| •waxing | •waning | •Full Moon |
| | •craters | |

After reading, find the _____ and color them _____.

Some of the planets in our *Solar System* have more than one moon, but The Earth has only one moon. Sometimes it seems that the Moon simply travels across Earth's sky, but the moon *orbits* the Earth. This means that the moon travels all the way around the earth. It takes the Moon about 28 days to orbit the Earth. The moon *rotates* while it orbits.

The Moon does not make its own light and heat like the Sun. We can see the Moon because the Sun's light shines on it. One side of the Moon is always lit by the Sun. As the Moon *rotates* and orbits the earth, different parts of the Moon are lit by the Sun. It looks like the Moon is changing shape, but it is not. The Moon is just going through *phases*. The first phase is a *New Moon*, which happens when only the part of the Moon facing away from Earth is lit by the Sun and the part of the Moon facing the Earth is dark. We have a *Crescent Moon* when only part of the moon facing us is lit, and we have a *Full Moon* when the Sun lights the entire side of the Moon facing us. When the shape of the moon seems to grow bigger, we say it's *waxing*. When it seems to grow smaller, we say it's *waning*.

The moon has mountains and valleys just like Earth. The moon is rocky and dry. It also has *craters*, which are holes made by rocks that have crashed into the moon.

The Earth



Name: _____

•orbit	•rotates	Power Words!
•hours	•crust	
•core	•metal	•solid
•liquid	•atmosphere	

After reading, find the _____ and color them _____.

The Earth is the third planet from the Sun. Earth has one moon, and it takes the Moon about one month to orbit, or go around, the Earth. The Moon orbits the Earth and the Earth orbits the Sun.

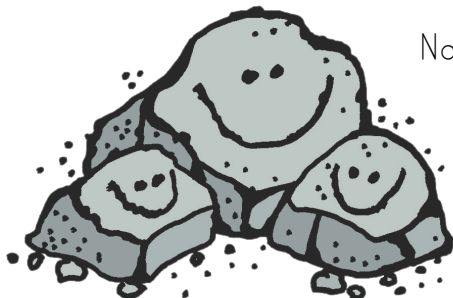
As Earth orbits the Sun, the Earth rotates a full turn every 24 hours. That's a full day! It takes about 365 days for Earth to orbit the Sun. That's one year! Earth gets light and heat from the sun.

The Earth is made of rock and metal. The surface of the Earth is the *crust*, which is made of soil and rock. Under the crust is the *mantle*, which is also made of rock. Deep inside the center of the Earth is the *core*, which is made of very hot solid and liquid metal.

The Earth is surrounded by gases, which are called the atmosphere. The atmosphere has the air we breathe.

The surface of the Earth is mostly water, which is in the form of oceans, lakes, and rivers. Earth has so much water that we sometimes call it The Blue Planet! The rest of the Earth is made up of deserts, jungles, forests, and prairies. Over 8 million different kinds of plants and animals live on Earth!

Rocks and Minerals



Name: _____

•crust	•mantle	Power Words!	
•minerals	•inorganic		•liquids
•solids	•gases		•quartz
•textures	•metals		•calcium

After reading, find the _____ and color them _____.

Rocks can be found all over the Earth. In fact, Earth's *crust* 12
and part of its *mantle* are made of rock! Some rocks are big and 26
some rocks are small. A rock can be as big as a mountain or as 41
small as a grain of sand. 47

Rocks are made of *minerals*. Minerals are natural, *inorganic* 56
solids. This means that they are not made by humans, they are not 69
alive, and they are not *liquids* or *gases*. Some rocks are made of only 83
one mineral and some rocks are made of more than one type of 96
mineral. There are many types of minerals. Some examples of 106
minerals are gold, *quartz*, and copper. 112

Rocks can be different sizes or different colors, or have 122
different *textures*, have different levels of luster, or have different 132
levels of hardness. Texture is the way an object feels. Some rocks 144
have a smooth texture and some rocks have a rough texture. Luster 156
is how shiny or dull an object is. Some rocks are very hard and some 171
rocks are soft. A diamond is the hardest mineral. Talc is the 183
softest. We can sort rocks based on their size, color, texture, luster, 195
or hardness. 197

We use rocks and minerals in many ways! Rocks can be used to 210
help create roads, buildings, and bridges. Metals, which are types of 221
minerals, can be used to create tools. We even eat some minerals! 233
Salt is a mineral, and *calcium* is a mineral found in milk, fruit, and 247
vegetables! 248

Water and the Water Cycle



Name: _____

•oceans	•underground	Power Words!
•groundwater	•resource	
•water cycle	•evaporates	•liquid
•gas	•water vapor	•atmosphere
•condense	•conserving	

After reading, find the _____ and color them _____.

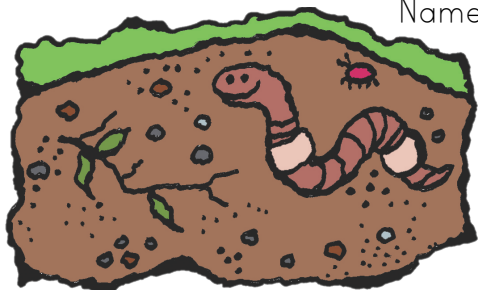
Earth is sometimes called “The Blue Planet” because most of 10
the Earth is covered with water! The water is in the form of 23
rivers, lakes, and *oceans*, and there is even water *underground*. 33
The water underground is called *groundwater*. All of this water is 44
an important resource drinking and for watering plants or crops. 54

The water cycle is the movement of water on, above and 65
below the Earth. The water cycle is powered by the Sun. When 77
water is heated by energy from the Sun, it *evaporates*. This 88
means that the air turns from a *liquid* to a *gas*. The evaporated 101
water is called *water vapor*, and the water vapor becomes part 112
of the air in the *atmosphere*. The atmosphere is the gases around 124
Earth. You can’t always see water vapor, but it is all around us. 137
As water vapor rises into the air, it cools down, which makes the 150
water *condense*. This means that the water becomes a liquid 160
again. Tiny drops of condensed water join together to form 170
clouds. As more and more water joins together in clouds, the 180
water becomes too heavy to stay in the air. The water falls back 194
to the Earth in the form of rain or snow. When the Sun heats the 209
water again, the water cycle repeats! 215

Conserving water means to not waste water. Water is an 225
important natural resource that all people, plants, and animals 234
need to survive! We need to protect our water! 243

Soil

Name: _____



•minerals •decompose
•humus •top-soil •sub-soil
•bedrock •dense

Power
Words!

After reading, find the _____ and color them _____.

Plants get their food from the sun and from the soil. Soil is made up of living and non-living things. Some living things that can be found in soil are insects and worms. Non-living things found in soil are *minerals*, rocks, water, and air. Bits of dead plants and animals can also be found in soil. These dead things *decompose*. That means that they break down and turn into *humus* and the humus becomes part of the soil. Humus is dark in color, and the humus becomes part of the soil. Humus and minerals in soil provide food for plants.

Soil covers the Earth in layers. The top layer is called *top-soil*. It has a lot of humus and is good for growing plants. The middle layer is called *sub-soil*. Sub-soil has less humus. The bottom layer is called *bedrock*, and it is dense and rocky with very little humus.

There are many different types of soil. Some soil has a lot of humus and holds a lot of water. This type of soil is good for many types of plants. Some soil has a lot of sand in it and cannot hold water well. This sand is not as good for most types of plants. Some soil has a lot of clay in it.

Plants need soil to grow, and animals and people need plants. Almost all living things need soil to survive!

Plants



Name: _____

•seed coat	•embryo
•root	•sprout •nutrients
•soil	•photosynthesis
•pollinated	

Power
Words!

After reading, find the _____ and color them _____.

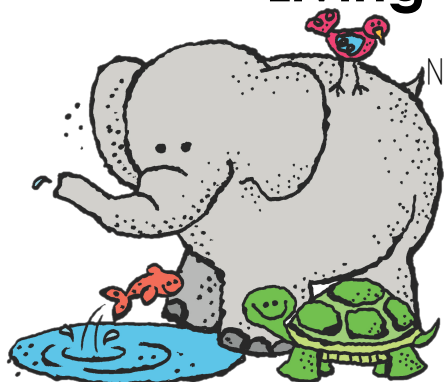
Most plants start growing from a tiny seed! A seed is made up of different parts. The seed has a *seed coat* on the outside that protects the seed. Inside there is a part called the *embryo* that can grow into a new plant.

A seed needs soil, water, air, and warmth to grow. When a seed has these things, the seed cracks open underground. A small *root* begins to grow down and a *sprout* begins to grow up out of the ground toward the sun. Roots help to support the plant and get water and nutrients from the soil. The leaves of the plant get sunshine and make their own food. When a plant uses the sun's energy to make its own food, this is called *photosynthesis*. Plants are the only living things that can make their own food!

The sprout uses sunlight, water, and *nutrients* from the soil to grow. At first, the sprout is very thin with very few leaves, but as it grows bigger, the sprout becomes a seedling with more leaves. After more time, the seedling becomes an adult plant with many leaves.

Some adult plants grow flowers. These flowers are *pollinated* by bees, birds, or even bats. When the flowers are pollinated, they can grow into fruits or vegetables, depending on the type of plant. The fruit from a plant protects more seeds inside! When the fruit falls to the ground, more plants can grow!

Living Things: Animals



Name: _____

•habitats •environment
•oxygen •hydrated •digest
•shelter •predators

Power
Words!

After reading, find the _____ and color them _____.

Animals are living things that are found in places all over the Earth. They can be found in many different *habitats*, such as forests, deserts, lakes, oceans, and even in the cold arctic habitats. Each animal's habitat, or *environment*, fits the animal's needs. All living things have four basic needs: air, food, water, and *shelter*.

Animals and all living things need air to breathe. Air contains *oxygen*, and living things use oxygen for creating energy from food. Even fish use their gills to take in oxygen underwater!

Even though different animals eat different types of food, all living things need food. Food gives animals energy to move and grow. Some animals are *herbivores*, which means that they eat only plants. *Carnivores* are animals that eat only other animals. *Omnivores* are animals that eat both plants and animals.

All living things need water. Most need to drink water to stay hydrated and to help *digest* food. Some animals need to live in water!

A shelter is like a home. Animals need shelter to protect them from the weather and from danger. Animals need shelter to protect them from the heat or the cold, and from other weather such as snow and rain. Some animals live in caves, trees, nests, or burrows underground to protect them. Predators hunt many animals, and shelter can help to protect animals from danger from predators. Some animals, such as a turtle, crab, or snail, use their own shells for shelter!

Reduce, Reuse, Recycle



Name: _____

- | | | | |
|---------------------|---------------------|-----------------|---------|
| • environment | • natural resources | Power
Words! | |
| • waste | • biodegradable | | |
| • non-biodegradable | • fuels | | • harm |
| • landfills | • reduce | | • reuse |

After reading, find the _____ and color them _____.

Our Earth's *environment* provides many *natural resources*, such as food, air, and water. We need these things to live! We need to take care of these natural resources.

Waste is anything we throw away or get rid of. Some of the things we throw away are *biodegradable*, which means they can break down and become part of the soil again. Wood, leaves, paper, and peels from fruits and vegetables are examples of waste that is biodegradable. But some things we throw away, such as plastic, glass, and metal objects are non-biodegradable. They collect in *landfills* for many, many years. Waste from burning *fuels*, such as from burning gas when we drive cars or burning fuels in factories, can make the air dirty. Too much non-biodegradable waste can cause a lot of problems and *harm* the soil, water, or air in our environment.

We can help our environment by finding ways to *reduce*, *reuse*, and *recycle*. Reducing means to use fewer resources. To reduce, we can drive cars less by riding our bikes or walking. We can shower quickly and water our yards less to save water.

Reusing means to use something again, rather than throwing it away. We can reuse clothing that has already been worn. We can reuse paper or plastic bags or boxes.

Recycling means to turn old trash into new objects. We can recycle old paper to make new paper. Old cans, jars, and bags can be turned into new cans, jars, and bags. Can you think of other ways to reduce, reuse, or recycle?