

SCIENCE POSTERS

Volume 1 £2

BUNDLE

+ 7 Scientific Method Charts

Plant Adaptations

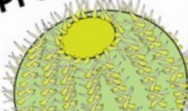
Adaptations are a specific set of features that an organism has that equip it to survive in its specific habitat. Plants develop adaptations for a variety of reasons.

Sun & Nutrients



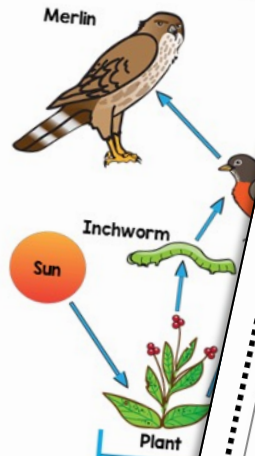
Some rainforest vines grow up the trunk of trees to get closer to the sunlight.

Protection



Food Webs

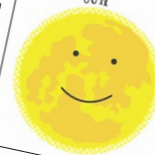
Food webs are a connected network of feeding relationships. It shows the transfer of energy from one organism to another within a specific ecosystem. The transfer of energy starts with the Sun.



The Earth, Sun & Moon

The Earth, Sun, and Moon are all very important to sustaining life on Earth. While they share some similarities, they all have their own unique characteristics and attributes.

Sun



Characteristics of the Earth

- It is a star
- It is the center of our solar system
- The gravitational pull from the sun keeps all the planets in place
- It provides energy and light to all living things on Earth

Earth



Characteristics of the Moon

- It is a planet
- It revolves around the Sun
- It has an atmosphere
- It orbits the sun every 365 days
- It has water
- It is the only planet with life

Moon



Characteristics of the Moon

- It is a satellite
- It revolves around the Earth
- It has no atmosphere
- It orbits the Earth every 28 days
- It has craters

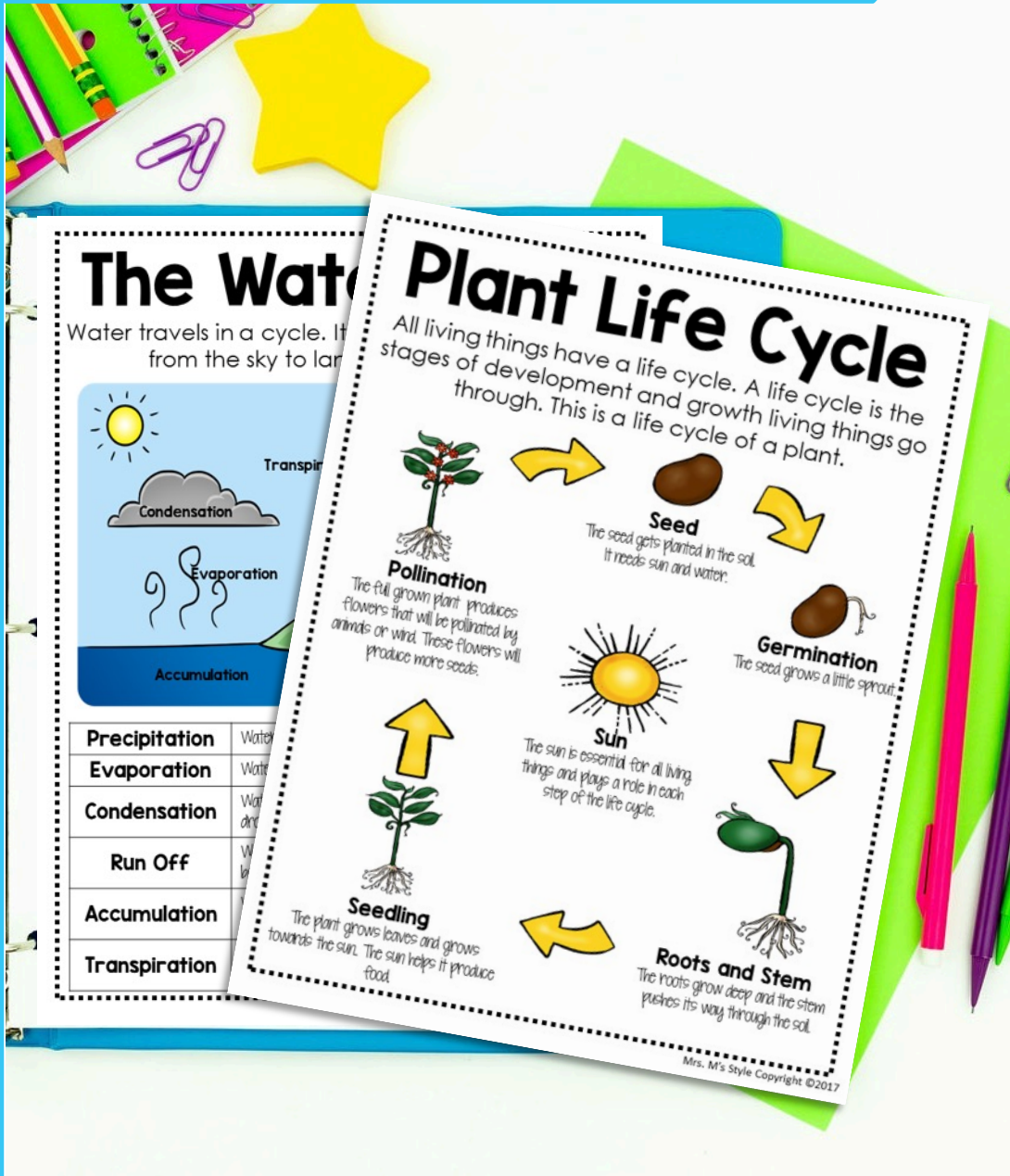
PERFECT FOR JOURNALS

INCLUDES DIGITAL



INCLUDES 15 SCIENCE POSTERS

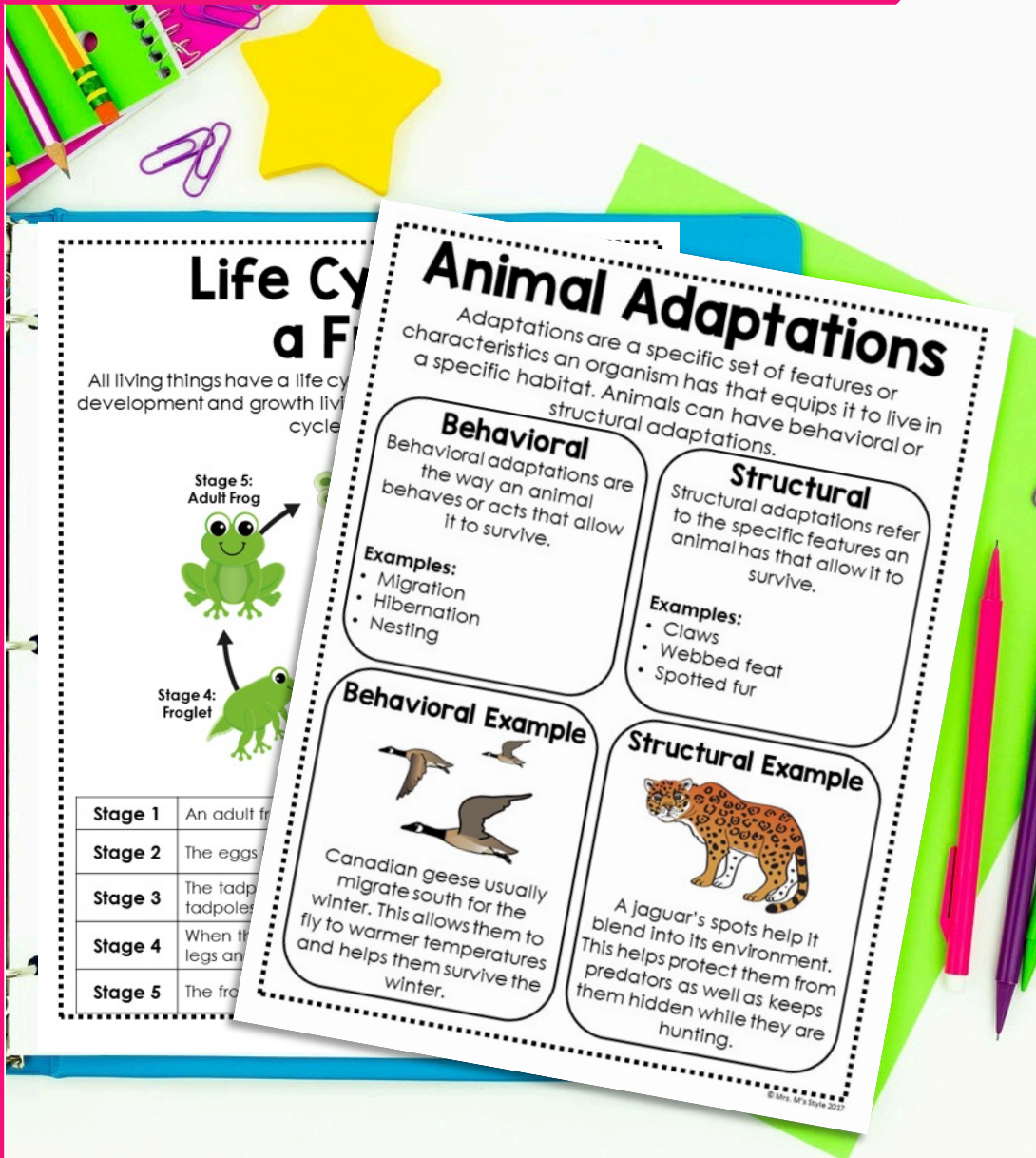
Vol I. Titles Include:



- Scientific Method
- States of Matter
- Mixtures and Solutions
- Types of Energy
- Natural Resources
- Electrical Resources
- Electrical Circuits
- Plant Life Cycle
- The Water Cycle
- Moon Phases
- Force and Motion
- Insulators and Conductors
- The Rock Cycle
- The Solar System
- Rotations vs. Revolution
- Light Transmission

INCLUDES 15 SCIENCE POSTERS

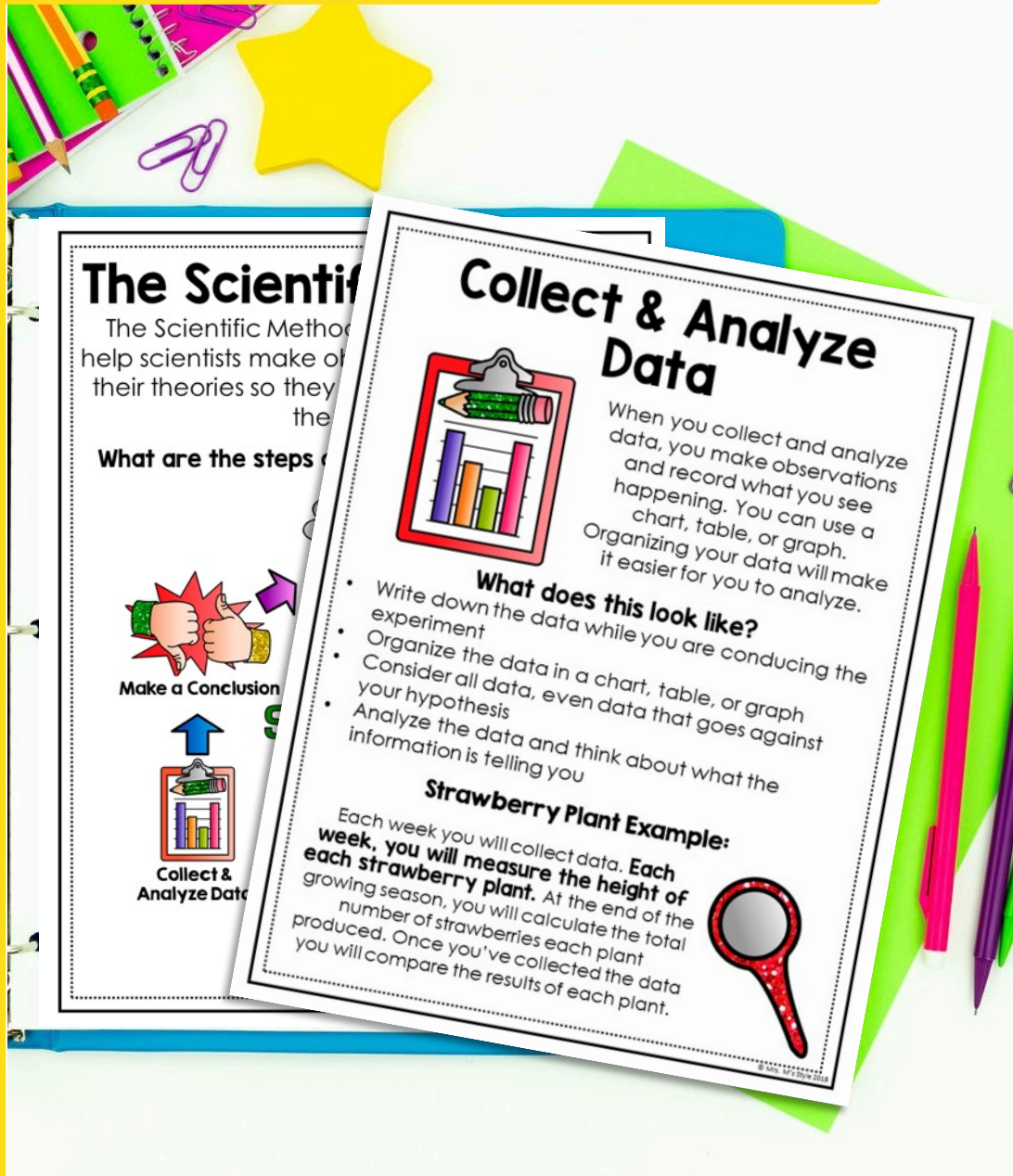
Vol 2. Titles Include:



- Life Cycle of a Butterfly
- Life Cycle of a Frog
- Producers, Consumers & Decomposers
- Plant Adaptations
- Animal Adaptations
- Food Webs
- Ecosystems
- Animal Traits
- Metamorphosis of Insects
- Changes to the Earth's Surface
- Landforms
- Weather Vs. Climate
- Weather Maps
- The Earth, Moon, Sun
- Layers of Soil

7 SCIENTIFIC METHOD POSTERS

Vol 2. Titles Include:



- The Scientific Method
- Ask a Question
- Gather Information
- Make a Hypothesis
- Conduct Experiment
- Collect and Analyze Data
- Make a Conclusion

TEACHERS LOVE THIS BUNDLE!

Check out what teachers have to say about this bundle.



My students loved how simplified these anchor charts were used to address each of the expected science standards. It was also a good guide for me to use as I taught the lessons. – Tiffany W.



These were very helpful to have displayed on the board throughout the unit. I even printed them to put in the students' notebook as a reference throughout the lesson. –Xatavius H.



This was a great resource for my the students in my special education resource room. I used them as a resource for students who were struggling on a topic and needed review or extra practice. – Haley S.



INCLUDES PRINTING OPTIONS!

Each poster includes different printing options. (Example shown is from vol. 1)

The Water Cycle
Water travels in a cycle. It is on a continuous journey from the sky to land and back again.

Precipitation	Water falls to the earth as rain, snow, sleet, or hail.
Evaporation	Water changes from a liquid to a gas as it is heated from the sun.
Condensation	Water vapor changes from a gas to a liquid and forms little water droplets as it cools.
Run Off	Water drains from a high point of land and flows into an existing body of water.
Accumulation	Water collects on the earth's surface such as oceans, streams, and lakes.
Transpiration	Water is absorbed by a plant, carried through to the leaves, and then turned into water vapor and released into the atmosphere.

Mini Color

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Mini Black & White

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Mini Fill-In

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Run Off	
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Full Page Color

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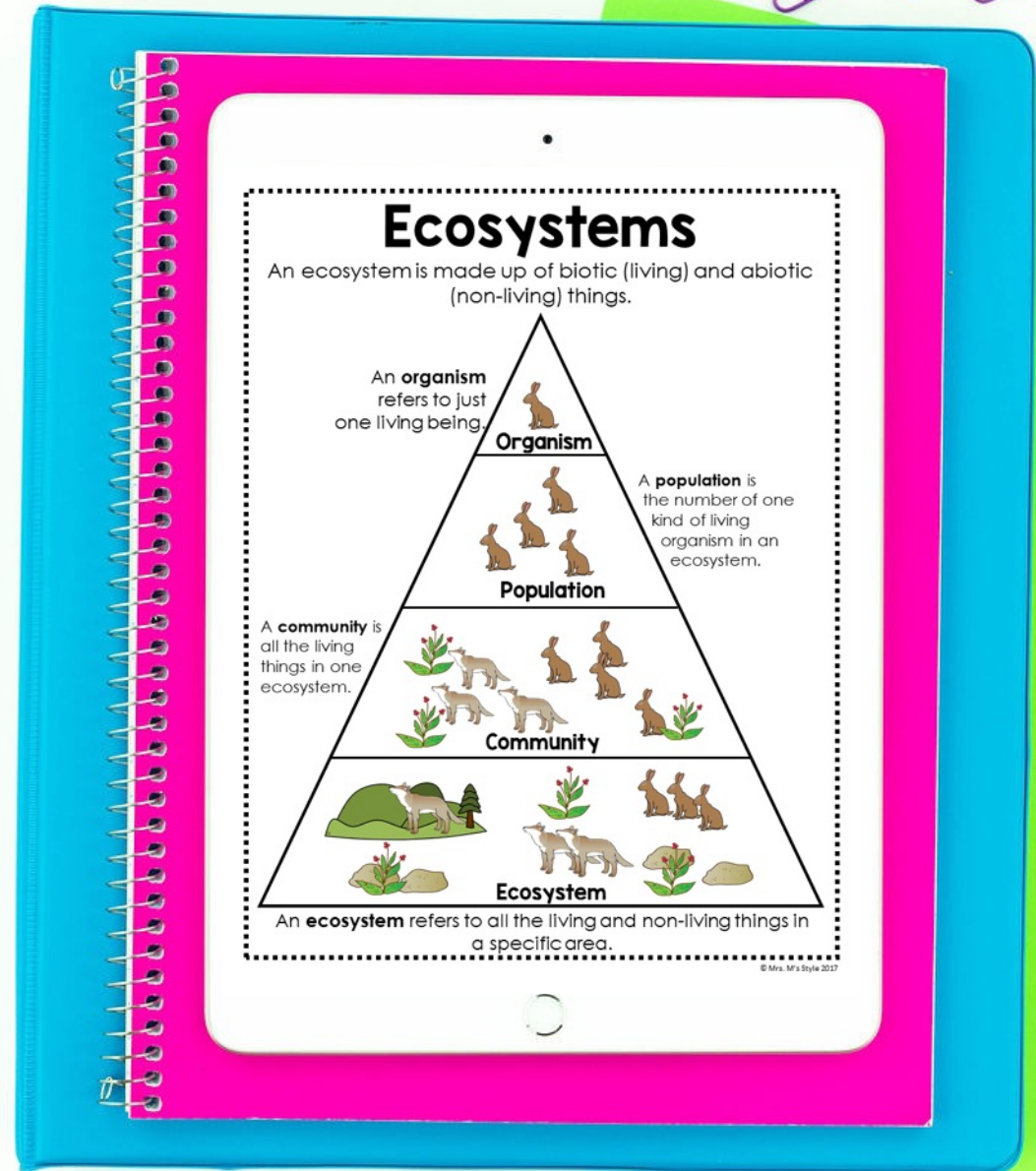
Full Page Black & White



Includes a Digital Version

This resource is also available in a digital version that is compatible with Google Slides.

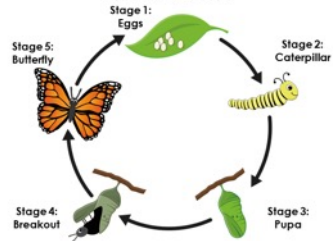
You can get the full color anchor charts as well as the fill-in templates in digital format.



A LOOK INSIDE...

Life Cycle of a Butterfly

All living things have a life cycle. A life cycle is the stages of development and growth living things go through. This is a life cycle of a butterfly.

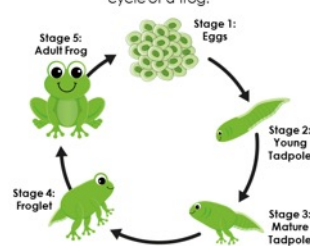


Stage 1	An adult butterfly will lay its eggs on a leaf.
Stage 2	The eggs hatch into caterpillars. The caterpillars will eat lots of food.
Stage 3	When the caterpillar is ready, it will hang upside down from a leaf and make a chrysalis.
Stage 4	When it's ready, the butterfly will breakout of the pupa.
Stage 5	The butterfly is now finally formed and is ready to lay more eggs.

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Life Cycle of a Frog

All living things have a life cycle. A life cycle is the stages of development and growth living things go through. This is a life cycle of a frog.






Stage 1	An adult frog will lay its eggs.
Stage 2	The eggs hatch into young tadpoles.
Stage 3	The tadpoles grow back legs and change into mature tadpoles.
Stage 4	When the frog is almost all full grown, it will grow all its legs and turn into a froglet.
Stage 5	The frog finally turns into a full grown adult.

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Producers, Consumers, and Decomposers

All living organisms play a role in the food chain. Living things can either be producers, consumers, or decomposers. All three play an important role in the food chain.

Producers	 Producers can make food on their own from the sun. Most plants are producers.
Consumers	 Consumers do not make their own food. They eat producers and other consumers.
Decomposers	 Decomposers break down dead and decaying material and help put nutrients back into the soil.

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Plant Adaptations

Adaptations are a specific set of features or characteristics an organism has that equips it to live in a specific habitat. Plants develop adaptations for a variety of reasons.

Sun & Nutrients



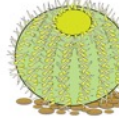
Some rainforest vines grow up the trunk of trees to get closer to the sunlight.

Water



Some desert plants have waxy leaves to help them retain water.

Protection



Some plants have spines to help protect them from predators.

Reproduction



Some plants quickly bloom and drop their seeds after rainfall.

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Animal Adaptations

Adaptations are a specific set of features or characteristics an organism has that equips it to live in a specific habitat. Animals can have behavioral or structural adaptations.

Behavioral

Behavioral adaptations are the way an animal behaves or acts that allow it to survive.

Examples:

- Migration
- Hibernation
- Nesting

Structural

Structural adaptations refer to the specific features an animal has that allow it to survive.

Examples:

- Claws
- Webbed feet
- Spotted fur

Behavioral Example



Canadian geese usually migrate south for the winter. This allows them to fly to warmer temperatures and helps them survive the winter.

Structural Example



A jaguar's spots help it blend into its environment. This helps protect them from predators as well as keeps them hidden while they are hunting.

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Landforms

Over time, the shape of the land and water on Earth has changed. These changes have resulted in the formation of different landforms.

Mountains



A mountain is an abrupt and drastic change in elevation.

River



A naturally flowing body of water. It has a source and a mouth.

Peninsula



A peninsula is a piece of land that juts out into a body of water.

Gulf



A body of water that is almost completely surrounded by land.

Valley



A valley is the low lying land in between two mountains.

Canal



A manmade waterway to connect two bodies of water.

Island



An island is a piece of land surrounded by water.

Delta

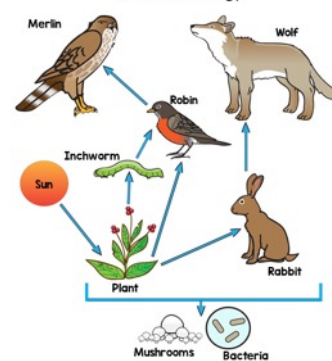


Land near the source of a river that is formed by river sediment.

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Food Webs

Food webs are a connected set of food chains. It shows the transfer of energy from organism to organism within a specific ecosystem. The arrows indicate a transfer of energy.

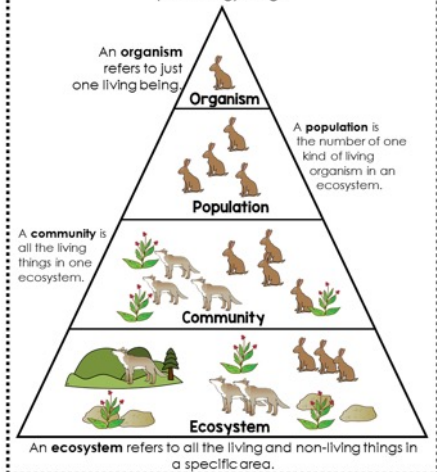


All organisms within an ecosystem are dependent upon one another. If you remove just one organism it will have an impact on the rest of the organisms in that ecosystem.

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Ecosystems

An ecosystem is made up of biotic (living) and abiotic (non-living) things.



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A LOOK INSIDE...

Changes to the Earth's Surface

The Earth's surface can change quickly due to a natural disaster, or it can change slowly over time due to some of Earth's natural processes.

What causes the Earth to change quickly?



Volcano

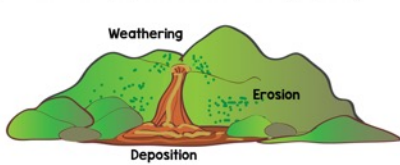


Avalanche



Earthquake

What causes the Earth to change slowly?



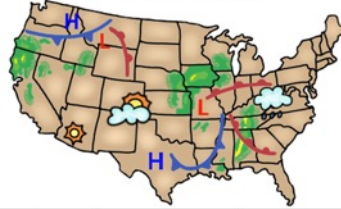
Weathering
the breaking down of rock.

Erosion
the movement of sediment.

Deposition
The depositing of sediment.

Weather Maps

Meteorologists will use different symbols to show what type of weather we can expect in the different parts of the country. If you can read a weather map you can prepare for the weather you will be getting.



Sunny



High Pressure



Low Pressure



Warm Front



Cold Front



Cloudy



Snowy



Rainy



Stormy

Weather vs. Climate

You can describe the climate and the weather of any location on the Earth. The weather and climate of a specific region impact people on a day to day basis.

Weather
describes what is currently happening.

Climate
describes the average weather patterns for a specific region.

Weather

--measured over short periods of time

--described as predictions

--used to determine climate

Climate

--measured over long periods of time

--described as averages

--determined by decades of weather data

Both

--Describes the temperature, precipitation, and humidity of a specific region

The Earth, Sun & Moon

The Earth, Sun, and Moon are all very important to sustaining life on Earth. While they share some similarities, they all have their own unique characteristics and attributes.



Sun

Characteristics of the Earth

- It is a star
- It is the center of our solar system
- The gravitational pull from the sun keeps all the planets in place
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Earth

Characteristics of the Moon

- It is a planet
- It revolves around the Sun
- It has an atmosphere
- It orbits the sun every 365 days
- It has water
- It is the only planet with life



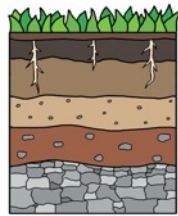
Moon

Characteristics of the Moon

- It is a satellite
- It revolves around the Earth
- It has no atmosphere
- It orbits the Earth every 27 days
- It has craters and other landforms

Layers of Soil

Soil has many layers. You usually only see the top layer of dirt, but the profile of soil changes drastically the deeper below the surface you go. Each layer of soil is important.



Humus
Topsoil
Subsoil
Parent Material
Bedrock

Humus - The very top part of the soil is called the humus. It is rich in organic matter and has lots of nutrients.

Topsoil - Below the humus, you can find the topsoil. This is where the seeds will germinate.

Subsoil - Below the topsoil is subsoil. This layer contains a lot of sand, silt, and clay.

Parent Material - This layer consists of broken up rocks and some broken tree roots.

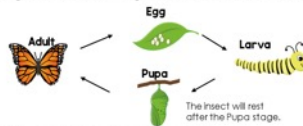
Bedrock - This layer is composed of solid rocks and is below all other layers of soil.

Metamorphosis of Insects

Metamorphosis is the process of change organisms go through as they grow and develop. Insects can go through complete or incomplete metamorphosis.

Complete Metamorphosis

There are four stages of a complete metamorphosis. The insect goes through a dramatic change from the first to the final stage.

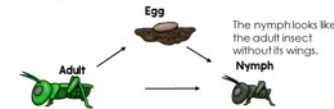


The insect will rest after the Pupa stage.

EXAMPLES: Butterfly, Ant, Ladybug, Moth, Beetle

Incomplete Metamorphosis

There are three stages of an incomplete metamorphosis. The insect changes, but it is not as drastic of a change.



The nymph looks like the adult insect without its wings.

EXAMPLES: Cricket, Grasshopper, Dragon Fly, Roach, Spider

Animal Traits

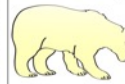
All animals have their own set of traits, characteristics and behaviors. Some of these traits and behaviors are inherited and some of them are learned.

Inherited Traits

Inherited traits are any traits, behaviors, or characteristics that are passed down from parent to offspring.



type of beak



color of fur



shape of leaf

Learned Behaviors

Learned behaviors are specific behaviors animals have learned from an experience or their environment.





dog tricks



balancing a ball

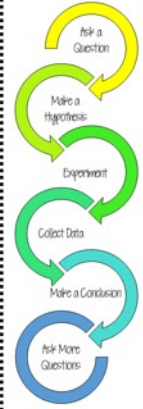
A LOOK INSIDE...

Mixtures & Solutions

Mixtures	Solutions
<ul style="list-style-type: none"> A mixture is two or more substances mixed together. The substances can be easily separated. Each substance keeps its original shape. You can separate the substances based on their original physical properties.  <p>Examples:</p> <ul style="list-style-type: none"> Sand and water Oil and water Trail Mix Spaghetti and Meatballs 	<ul style="list-style-type: none"> A solution is two or more substances mixed together. The substances cannot be easily separated and the combination creates a new substance. One substance dissolves into another.  <p>Examples:</p> <ul style="list-style-type: none"> Sugar and water Lemonade Hot Chocolate Salt and Water

Scientific Method

The Scientific Method is a set of steps that help scientists make observations and test out their theories so they can better understand the world.



- Ask a Question:** Start off by thinking about what you want to know. What are you curious about?
- Make a Hypothesis:** Make a prediction based on the information you already know. A hypothesis is an educated guess.
- Experiment:** Design an experiment to test your guess. You will need materials and a set procedure.
- Collect Data:** Make observations and record what you see happening in a chart, table, or graph.
- Make a Conclusion:** A conclusion is a generalization you can make based off of the data you collected during the experiment.



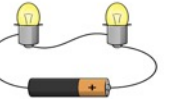
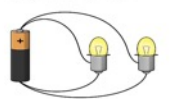
Types of Energy

Energy is the ability to do work. Energy comes in many different forms.

M Mechanical	Mechanical energy is movement. It is created by a machine or moving part. EXAMPLES: bicycle, gears, scissors, wind-up toy, fan
E Electrical	Electrical energy is caused by the flow of electrons. It travels in circuits. EXAMPLES: computer, TV, iPhone, lamps
L Light	Light energy travels in waves through space. You can see light energy. EXAMPLES: Sunlight, fire, flashlights, lights, stars
T Thermal	Thermal Energy is heat. It is created by molecules moving quickly. EXAMPLES: oven, heater, stove, microwave
S Sound	Sound Energy is heard. It is made by vibrating objects. EXAMPLES: talking, singing, music, bells, chimes, sonar

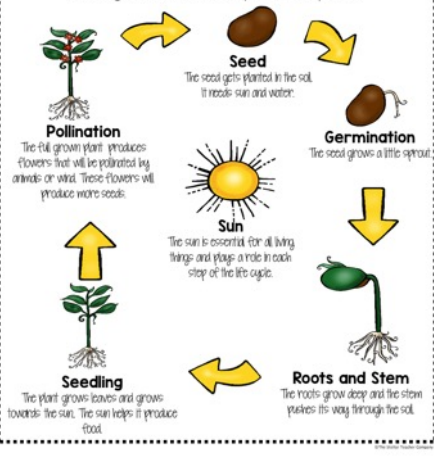
Electrical Circuits

Electrical energy is from the flow of moving electrons. Electrons move through a path called a circuit. Electrical energy can produce other forms of energy such as thermal, sound, and light.

Open Circuit An incomplete path of electricity  "If its open it's broken"	Closed Circuit A complete path of electricity  "If its closed it flows"
Series Circuit Electrons flow in one path. A break in the circuit will shut down the current. 	Parallel Circuit Electrons can flow through more than one path. A break in the circuit might only shut down part of it. 

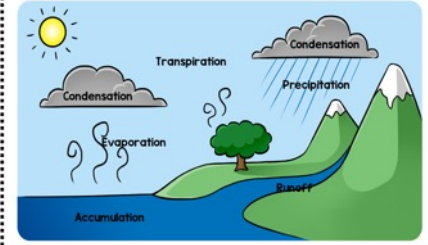
Plant Life Cycle

All living things have a life cycle. A life cycle is the stages of development and growth living things go through. This is a life cycle of a plant.



The Water Cycle

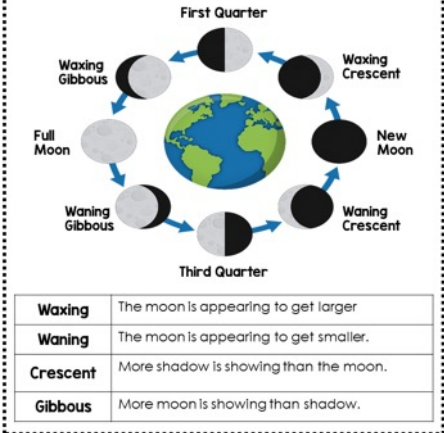
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Moon Phases

The moon travels around the earth. As the moon travels it goes through different phases. There are 8 different moon phases that reflect the amount of sunlight reflecting off the moon. It takes one month for the moon to go through all of its phases.





Insulators & Conductors

Insulators and Conductors help with the flow of electrical energy.

Insulators stop the transfer of energy. They slow down the energy and make it difficult for it to pass through the object.



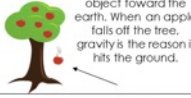



Conductors help the transfer of energy. They allow energy to easily pass through the object.

Electrical Insulators	Electrical Conductors
	
What do all these insulators have in common?	What do all these conductors have in common?

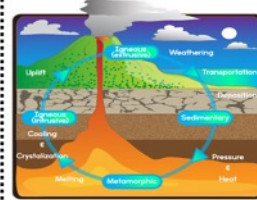
A LOOK INSIDE...

Force & Motion




Force is the energy it takes do to work. When you push or pull an object it takes energy to get that object to move. Motion is the change in position an object experiences because of a force applied.

<p>Push</p> <p>A force to move something away from you.</p> 	<p>Pull</p> <p>A force to move something closer to you.</p> 
<p>Gravity</p> <p>A force that brings object toward the earth. When an apple falls off the tree, gravity is the reason it hits the ground.</p> 	<p>Friction</p> <p>A force that slows or stops motion when two objects rub together.</p> 
<p>Magnetism</p> <p>A force that attracts or repels objects. Opposite poles attract and like poles repel. Magnets can stick to iron, nickel and cobalt.</p> 	<p>Acceleration</p> <p>The ability for an object to gain speed in a short amount of time. As the ball rolls down the hill it will continue to gain speed.</p> 

The Rock Cycle

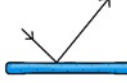




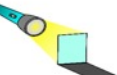


There are three types of rocks: igneous, sedimentary, and metamorphic. Rocks are formed over time when there is a change in pressure or temperature.

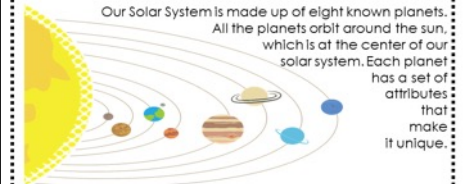
<p>Igneous Rocks</p> <p>These types of rocks are formed when hot lava or magma from a volcano cools and hardens.</p> 
<p>Sedimentary Rock</p> <p>These types of rocks are formed when pressure is applied to layers of sediment.</p> 
<p>Metamorphic Rock</p> <p>These used to be igneous or sedimentary but are changed to metamorphic because they have been exposed to heat and pressure for long periods of time.</p> 










Light Transmission

Light travels in a straight line. It can travel through different types of matter and environments such as air, water, glass, and even the vacuum of outer space. Light reacts differently depending on what it encounters.

<p>Reflection</p> <p>This refers to the bouncing back of light.</p> 	<p>Refraction</p> <p>This refers to the bending of light.</p> 	<p>Absorption</p> <p>This refers to an object taking in light.</p> 
<p>Transparent</p> <p>This refers to an object that lets all the light travel through it.</p> 	<p>Translucent</p> <p>This refers to an object that lets some of the light travel through it.</p> 	<p>Opaque</p> <p>This refers to an object that lets no light travel through it.</p> 



The Solar System



<p>Mercury</p> <p>Mercury is the smallest planet.</p> 	<p>Venus</p> <p>Venus is the hottest planet.</p> 	<p>Earth</p> <p>Earth is the only planet with life.</p> 
<p>Mars</p> <p>Mars is known as the red planet.</p> 	<p>Jupiter</p> <p>Jupiter is the largest planet.</p> 	<p>Saturn</p> <p>Saturn is known for its ring system.</p> 
<p>Uranus</p> <p>Uranus has two dark rings.</p> 	<p>Neptune</p> <p>Neptune is the farthest planet from the sun.</p> 	<p>Pluto</p> <p>Pluto used to be a planet, but is now considered a dwarf planet.</p> 

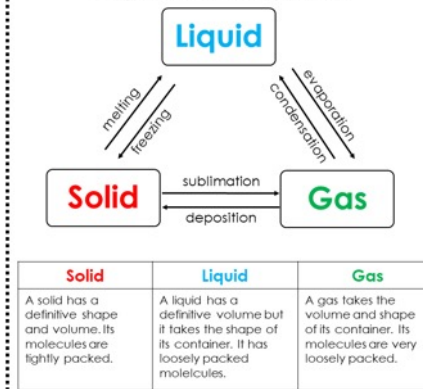
Rotation & Revolution

The earth rotates and revolves. Both concepts are important for us to understand. The rotation and revolution of the earth have an impact on our understanding of time.

<p>Rotation</p> <p>Think: To spin</p>  <ul style="list-style-type: none"> The Earth rotates (spins or turns) on its axis. It takes 24 hours for the Earth to rotate all the way around. The rotation of the Earth causes us to experience day and night. One complete rotation is equal to one 24 hour day. 	<p>Revolution</p> <p>Think: To travel around</p>  <ul style="list-style-type: none"> The Earth and all the planets revolve (orbit) around the sun. It takes 365 days for the Earth to travel all the way around the sun. The rotation of the earth causes us to experience the four seasons. One complete revolution is equal to one 365 day year.
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States of Matter

Matter is anything that takes up space. Everything can be categorized into the three different states of matter: Matter can change its state when it experiences a change in temperature and/or pressure.



Natural Resources

Natural Resources are the things we get from the earth. Natural Resources can either be renewable or non-renewable.

Renewable	<p>Renewable Resources can be replaced and replenished in our lifetime.</p> <p>Examples:</p> <p>• Sun • Wind • Water • Soil • Plants</p>			
	<table border="1"> <tr> <th>Advantages</th> <th>Disadvantages</th> </tr> <tr> <td> <ul style="list-style-type: none"> Sustainable Requires little maintenance Produce little waste </td> <td> <ul style="list-style-type: none"> Difficult to produce large quantities The reliability of supply is often dependent on weather </td> </tr> </table>	Advantages	Disadvantages	<ul style="list-style-type: none"> Sustainable Requires little maintenance Produce little waste
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Non-Renewable	<p>Non-Renewable Resources cannot be replaced in our lifetime. They do not renew quickly.</p> <p>Examples:</p> <p>• Coal • Oil • Diamond • Fossil Fuel</p>			
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