



Edit File



**Extra Support for
Vocabulary and Concepts**

Grade 3



HOUGHTON MIFFLIN HARCOURT

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To the Teacher

Some students may need extra support in learning new science vocabulary and concepts. The Extra Support for Vocabulary and Concepts pages are designed to fill that need. The pages accompany every content lesson in the *ScienceFusion* Student Edition and provide:

- Phonetic respellings, definitions, and tips for remembering the lesson's vocabulary terms.
- Concept statements, written in simplified language, to reinforce the lesson's main ideas.

These pages also reinforce tested content objectives and the Florida Science Benchmarks.

Ideas for Using These Pages

- Working in small groups, have students read each vocabulary word aloud and repeat it three times. Then have students alternate reading the definitions and tips for remembering the terms. Have students conclude by restating the meaning of each term in their own words.
- Working with a partner, have students take turns reading aloud the Science Ideas statements as if they were lines in a play. Challenge students to practice until they know the statements by heart.
- Suggest students read the pages at home with family members. Encourage them to enlist the help of family members in reviewing and remembering the information.
- Encourage students to use these pages as tools for reviewing unit content prior to unit reviews and tests or state science assessment.

- Have students select three or four Science Ideas statements, write them on drawing paper, and illustrate them.
- Students can cut and paste each vocabulary term and its definition into their science notebooks or onto index cards to make their own set of vocabulary cards. The cards can be used in vocabulary games and activities, such as Twenty Questions and Jeopardy®.
- Working in pairs, have students brainstorm and write a new tip for remembering each vocabulary word.
- Suggest students create a crossword puzzle with the vocabulary terms. Students can use or paraphrase the definitions provided on the page as clues.
- Have students turn each Science Ideas statement into a question. Suggest they write the question on one side of an index card and the answer on the other side. Students can use the index cards to play a question-and-answer game with a classmate.
- Suggest students rewrite each Science Ideas statement in their own words and give an example or detail that further illustrates the meaning of the statement.
- Have students select two or three vocabulary words and write as much as they can about each word, including examples, facts, and connections to other vocabulary words.

Unit 1 Investigating Questions

Lesson 1 How Do Scientists Investigate Questions?.....	1
Lesson 3 How Do Scientists Use Tools?.....	4
Lesson 5 How Do Scientists Record Data?	6

Unit 2 Earth and Stars

Lesson 1 What Are the Sun and Stars?.....	8
Lesson 4 What Is Gravity?.....	10

Unit 3 Properties of Matter

Lesson 1 What Are Some Physical Properties?.....	12
Lesson 4 What Are the States of Matter?	15

Unit 4 Forms of Energy

Lesson 1 What Are Some Forms of Energy?	18
Lesson 2 How Does Light Move?	20

Unit 5 Heat Sources

Lesson 1 What Are Some Heat Sources?	22
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Unit 6 Plants and the Environment

Lesson 1 What Are Some Plant Structures?.....	24
Lesson 3 How Do Plants Respond to Their Environment?	26

Unit 7 Classifying Plants and Animals

Lesson 1 How Can We Classify Plants?.....	28
Lesson 2 How Can We Classify Vertebrates?	30
Lesson 3 How Can We Classify Invertebrates?.....	32

Unit 8 Living Things Change

Lesson 1 How Do Living Things Change With the Seasons?.....	34
Lesson 3 How Do Plants and Animals Get Energy?	36



How Do Scientists Investigate Questions?

Science Words

Say each word quietly to yourself. Then read the meaning.

Read the tip to help you remember.

observe [ahb•ZERV] use your senses to notice details

Observe contains the word *serve*. All your senses can serve as ways to *observe* things.

infer [in•FER] offer an explanation of what you have observed

Infer and *idea* begin with the same letter. When you observe, you may get an idea that helps you *infer*.

predict [pree•DIKT] use what you know to say what is going to happen in the future

Prefix and *predict* begin the same way. You add a prefix at the beginning of a word. You *predict* what will happen at the beginning an investigation.

How Do Scientists Investigate Questions?

Science Words

Say each word quietly to yourself. Then read the meaning.

Read the tip to help you remember.

investigation [in•ves•tuh•GAY•shuhn] a planned way of finding answers to questions

Investigation and *question* both end in *-tion*. An *investigation* can answer a question.

hypothesis [hy•PAHTH•uh•sis] a statement that can answer your question. You must be able to test a hypothesis.

Hypothesis ends with the sound at the beginning of *start*. A *hypothesis* starts an investigation.

experiment [ek•SPAR•uh•muhnt] a test done to gather evidence

Experiment and *evidence* begin with the same sound. You *experiment* to find evidence.

variable [VAIR•ee•uh•buhl] a factor that is changed in an experiment

Variable begins the same way as *vary*, which means change. *Variable* ends with *-able*. A *variable* is something that is able to be changed.

How Do Scientists Investigate Questions?

Science Concepts

Read the Ideas more than once. Do your best to remember them.

1. When you observe, you notice details about things.
2. An investigation is a plan to find an answer to a question.
3. An investigation begins with a question.
4. A hypothesis is a statement that could answer the question.
5. Scientists predict what will happen if their hypothesis is correct.
6. Scientists do an experiment to see if their prediction is correct.
7. Making a model may help you carry out an experiment.
8. Keep all variables the same, except for the one you plan to test.
9. Analyze the results of the experiment and draw conclusions.
10. Decide if the results support your hypothesis.



How Do Scientists Use Tools?

Science Words

Say each word quietly to yourself. Then read the meaning.

Read the tip to help you remember.

microscope [MY•kruh•skohp] a tool that magnifies objects that are too tiny to see with the eye alone

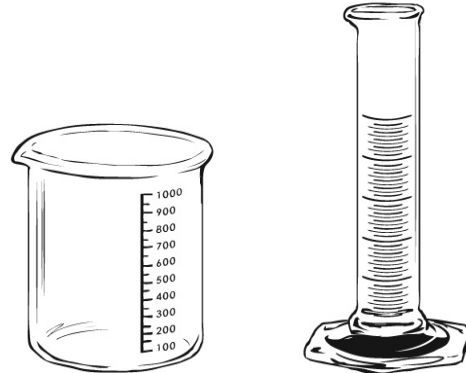
Microscope and *telescope* end in *-scope*. Both words name something that helps you see things by making them look bigger. A *microscope* makes tiny things look bigger.



graduated cylinder [GRA•joo•ay•tuhd SIL•uhn•der] a tool used for measuring the volume of a liquid

Graduated and *gradually* sound almost alike. When something changes gradually, it changes in small steps.

A *graduated cylinder* shows small differences in volume.



temperature [TEM•per•uh•cher] a measure of how hot or cold something is.

Temperature and *degrees* have three e's. You measure *temperature* in degrees.

How Do Scientists Use Tools?

Science Concepts

Read the Ideas more than once. Do your best to remember them.

1. A microscope lets you see things that are too tiny to see with the eye alone.
2. A forceps lets you pick up tiny things to view with a magnifier.
3. A dropper lets you move a small amount of a liquid so you can view it.
4. A balance lets you measure the mass of something in grams.
5. A ruler lets you measure in centimeters and meters, or inches and feet.
6. A graduated cylinder lets you measure the volume of a liquid.
7. Clocks and stopwatches let you measure time in seconds and minutes.
8. A thermometer lets you measure how hot or cold it is in degrees.
9. People in the United States measure temperature in degrees Fahrenheit.
10. People in other parts of the world measure temperature in degrees Celsius.



How Do Scientists Record Data?

Science Words

Say each word quietly to yourself. Then read the meaning.

Read the tip to help you remember.

data [DAY•tuh] information. Each science observation is a piece of data.

Data and *date* sound almost alike. The date is a particular kind of information—the day of the month and year. *Data* can be any kind of information.

data table [DAY•tuh TAY•buhl] a display that organizes data into rows and columns

Chart ends with the sound at the beginning of *table*. A chart and a *data table* look very much alike.

Number of Rainy Days

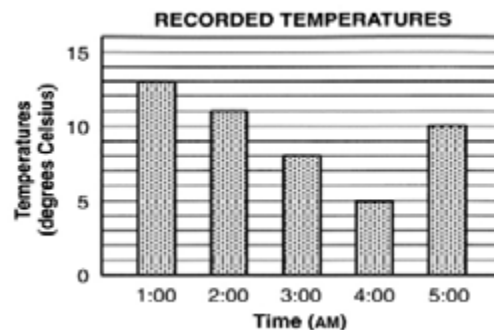
February			
March			
April			

evidence [EHV•uh•duhns] information to decide whether a hypothesis is or is not supported

Evidence ends with the sound at the beginning of *certain*. *Evidence* can help you be certain your hypothesis is correct.

bar graph [BAR graf] a way to compare data about different events or groups

A graph is a drawing that uses lines, pictures, or bars to compare data. A *bar graph* uses bars.



How Do Scientists Record Data?

Science Concepts

Read the Ideas more than once. Do your best to remember them.

1. Each science observation is a piece of data.
2. Scientists use data as evidence.
3. Evidence can help decide whether or not a hypothesis is correct.
4. Scientists can communicate the results of their work in many ways.
5. A photograph is a way to communicate information.
6. Writing in a journal is a way to communicate information.
7. Scientists may use a data table to organize and display data.
8. A bar graph is a way to show relationships or patterns in data.
9. Scientists may review the data other scientists share.
10. Scientists may repeat an investigation to see if they get the same results.



What Are the Sun and Stars?

Science Words

Say each word quietly to yourself. Then read the meaning.

Read the tip to help you remember.

sun [SUHN] a medium-sized star

A bus near you looks big. But as the bus drives away, it looks smaller and smaller. The *sun* looks much bigger than other stars because it is closer to Earth than they are.

star [STAR] a ball of hot, glowing gases

Some actors are stars because they shine or stand out from the others. *Stars* in space shine because they give off their light.

telescope [TEL•uh•skohp] a tool that makes faraway objects seem larger and closer

Telescope and *television* begin the same way. Both words name things that let you see faraway objects.



What Are the Sun and Stars?

Science Concepts

Read the Ideas more than once. Do your best to remember them.

1. Our sun is a medium-sized star much closer to Earth than other stars.
2. Like all stars, the sun is a ball of hot, glowing gases.
3. The sun makes the sky so bright we don't see other stars during the day.
4. Life on Earth could not survive without the sun's radiant energy.
5. Some of the sun's radiant energy travels to Earth as light.
6. Plants use the sun's light to make food.
7. Some of the sun's radiant energy travels to Earth as heat.
8. Without the sun, Earth would be cold, dark, and empty.
9. A telescope makes stars look brighter and closer.
10. It is safe to look at stars with a telescope, but not safe to look at the sun.

Name _____



What Is Gravity

Science Words

Say each word quietly to yourself. Then read the meaning.

Read the tip to help you remember.

force [FAWRS] a push or a pull

You can use a *force* to make something happen. For example, a *force* can force a door to open.

gravity [GRAV•ih•tee] a force that pull objects toward one another

Gravity ends with the letter at the beginning of *you*. You and everything else have *gravity*. The effect of Earth's *gravity* is to pull you down, toward Earth.

Name _____

What Is Gravity?

Science Concepts

Read the Ideas more than once. Do your best to remember them.

1. A force is a push or a pull.
2. Gravity is a force.
3. Gravity pulls objects toward one another.
4. Earth's gravity causes objects to fall.
5. Because of gravity, the planets travel around the sun.
6. When you jump up, gravity pulls you back to Earth.
7. Other forces can act against gravity to keep things from falling.
8. Your muscles work against gravity when you catch a ball.
9. A rocket engine overcomes gravity so a rocket can take off.
10. A slide keeps people from falling straight down.

What Are Some Physical Properties?

Science Words

Say each word quietly to yourself. Then read the meaning.

Read the tip to help you remember.

matter [MAT•er] anything that takes up space

Matter and the words on this page are alike in some ways. Like *matter*, the words take up space, but no two words take up the same space.

physical property [FIZ•ih•kuhl PRAHP•er•tee] a characteristic of matter that you can observe or measure directly

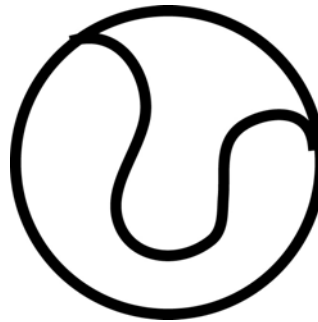
You can observe the color, texture, and shape of something. So these are examples of *physical properties*.

mass [MAS] the amount of matter an object has

Mass, *matter*, and *more* begin with the same sound. The more matter an object has, the more *mass* it has.



Baseball



Tennis ball

A baseball has more mass than a tennis ball.

What Are Some Physical Properties?

Science Words

Say each word quietly to yourself. Then read the meaning.

Read the tip to help you remember.

volume [VAHL•yoom] the amount of space an object takes up

When someone asks you to turn up the *volume* on a TV, the person wants more, or louder, sound. In science, something with more *volume* takes up more space.

Volume ends with the sound at the beginning of *milliliter*. You measure the *volume* of a liquid in milliliters.

temperature [TEM•per•uh•cher] the measure of how warm something is

Temperature and *degrees* have three e's. You measure *temperature* in degrees.

What Are Some Physical Properties?

Science Concepts

Read the Ideas more than once. Do your best to remember them.

1. A physical property is a part of matter you can observe or measure.
2. Mass is the amount of matter an object has.
3. Objects with more mass are harder to move than objects with less mass.
4. You can use a pan balance to measure mass in grams.
5. Volume is the amount of space an object takes up.
6. To find the volume of a cube, multiply its length by its width and its height.
7. Use a graduated cylinder to measure the volume of a liquid.
8. Use a thermometer to measure temperature, or how warm something is.
9. On a Fahrenheit scale, water freezes at 32 degrees and boils at 212 degrees.
10. On a Celsius scale, water freezes at 0 degrees and boils at 100 degrees.



What Are the States of Matter?

Science Words

Say each word quietly to yourself. Then read the meaning.

Read the tip to help you remember.

solid [SAHL•id] matter that takes up a definite amount of space and has a definite shape

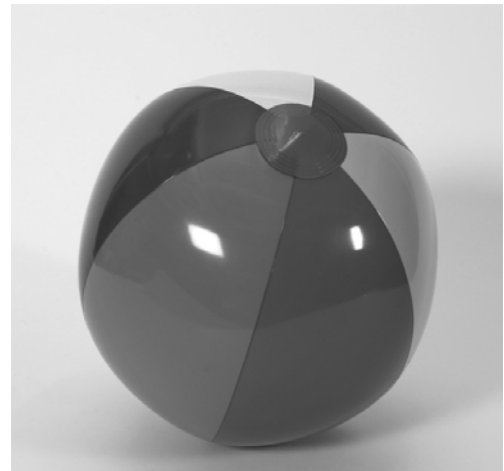
Something definite is fixed or set. *Solid* and *set* begin with the same sound. A *solid* has a set size and shape.

liquid [LIK•wid] matter that takes up a definite amount of space, but does not have a definite shape

Liquid and *lack* begin with the same sound. A *liquid* lacks its own shape. It takes the shape of its container.

gas [GAS] matter that does not take up a definite amount of space, and does not have a definite shape

Gas and *fits* end with the same sound. A *gas* fits into the size and shape of its container. An amount of gas spreads out to fill a big container and contracts to fit into a small container.



This beach ball is filled with air, a gas.

Name _____

What Are the States of Matter?

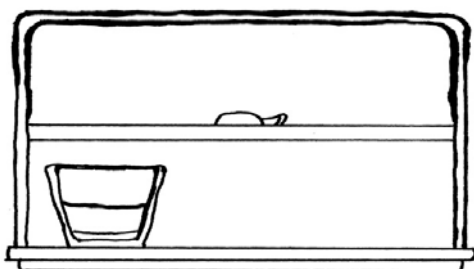
Science Words

Say each word quietly to yourself. Then read the meaning.

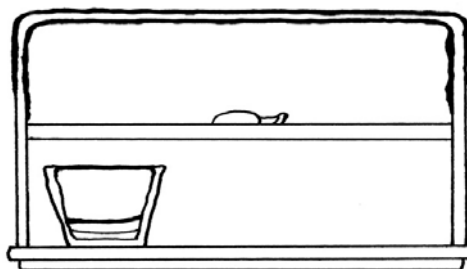
Read the tip to help you remember.

evaporation [ee•vap•uh•RAY•shuhn] what happens when a liquid changes to a gas

Evaporation and *even* begin with the same sounds. *Evaporation* even takes place in cool temperatures.



Monday, 6:00 A.M.



Tuesday, 6:00 A.M.

Some of the liquid in the cup has changed to a gas. Evaporation has taken place.

condensation [kahn•duhn•SAY•shuhn] when happens when a gas changes to a liquid

Condensation and *cool* begin with the same sound. *Condensation* happens when water vapor cools.



The drops on the outside of this pitcher form when condensation takes place. Water vapor from the air changes to liquid water.

Name _____

What Are the States of Matter?

Science Concepts

Read the Ideas more than once. Do your best to remember them.

1. Solids take up a definite amount of space and have a definite shape.
2. Liquids take up a definite amount of space, but don't have a definite shape.
3. Gases don't take up a definite amount of space or have a definite shape.
4. When matter cools, it loses energy.
5. Water becomes a solid at 0° Celsius, which is the same as 32° Fahrenheit.
6. When matter is heated, it gains energy.
7. Water boils and becomes a gas at 100° Celsius, which 212° Fahrenheit.
8. Evaporation is when liquid water changes to a gas without boiling.
9. When water vapor cools, it may condense.
10. Condensation is when a gas changes into a liquid.



What Are Some Forms of Energy?

Science Words

Say each word quietly to yourself. Then read the meaning.

Read the tip to help you remember.

energy [EN•er•jee] the ability to make something move or change

Energy and *engine* begin with the same sounds. An engine makes a car move. Enough energy can make anything move.

potential energy [poh•TEN•shuhl EN•er•jee] stored energy

Potential and *possible* begin with the same sounds. Something that is *potential* is possible. *Potential* energy is possible energy, energy ready to be used at some future time.

kinetic energy [kih•NET•ik EN•er•jee] the energy of motion

Kinetic and *kick* begin with the same sounds. When you kick something you use *kinetic* energy because your leg is in motion.

mechanical energy [muh•KAN•ih•kuhl EN•er•jee] the total of an object's potential energy and kinetic energy

Mechanical and *math* begin with the same sound. If you add potential energy and kinetic energy, you get *mechanical energy*.

Potential Energy + Kinetic Energy = *Mechanical energy*

electrical energy [uh•LEK•trik•uhl EN•er•jee] energy that moves through wires

Electrical and *electricity* sound almost alike. *Electrical energy* is electricity.

What Are Some Forms of Energy?

Science Concepts

Read the Ideas more than once. Do your best to remember them.

1. Energy is the ability to make things move.
2. Potential energy is stored energy.
3. A ball on a shelf has potential energy because it could move, but hasn't yet.
4. Kinetic energy is energy in motion.
5. A ball falling from a shelf has kinetic energy because the ball is in motion.
6. Mechanical energy is the combination of potential and kinetic energy.
7. Electrical energy is energy that moves through wires.
8. Electricity is electrical energy.
9. Sound, heat, and light are forms of energy.
10. The loudness of sound is measured in decibels.



How Does Light Move?

Science Words

Say each word quietly to yourself. Then read the meaning.

Read the tip to help you remember.

absorb [ab•SAWRB] take in

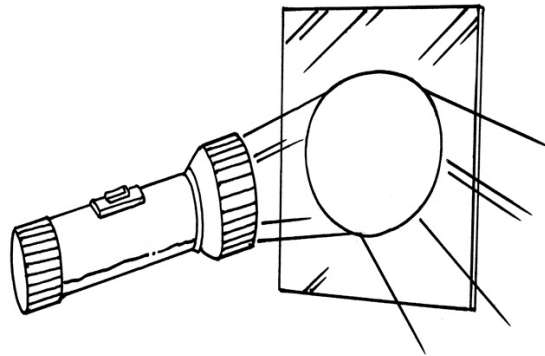
If you spill water, you might use a paper towel to clean up. Why? Because the paper towel will *absorb* the water.

shadow [SHAD•oh] the dark area behind an object that has blocked light

Shadow has the same beginning sound as *shade*. The *shadow* of a tree or other large object creates shade.

reflect [rih•FLEKT] bounce back

Reflect and *return* begin with the same sounds. When something returns, it comes back. When light *reflects*, it bounces back.



refract [rih•FRAKT] bend

If you break a bone, a doctor might say you have a fracture. When light *refracts*, a pencil in a glass of water may look as if it is broken.



The refracted light makes this pencil look broken.

How Does Light Move?

Science Concepts

Read the Ideas more than once. Do your best to remember them.

1. Light moves in straight lines.
2. When light hits an object, it cannot keep going straight.
3. An object may absorb, or take in, light.
4. An object that absorbs light may create a shadow.
5. A shadow is the dark area behind an object that has blocked light.
6. Light bounces back from smooth glass, metal, and water.
7. Light that bounces back from a surface is reflected.
8. Things that are reflected in a mirror look backward.
9. When light passes through glass or water, it bends, or refracts.
10. Refracted light makes objects that stick out of water look broken.

Name _____



What Are Some Heat Sources?

Science Words

Say each word quietly to yourself. Then read the meaning.

Read the tip to help you remember.

heat [HEET] energy that moves from warmer objects to cooler objects

Heat and *hot* begin and end with the same sounds. If you hold a cup of hot chocolate, the *heat* from the cup will warm your hands.

temperature [TEM•per•uh•cher] the measure of how hot or cold something is

Temperature and *degrees* have three e's. You measure *temperature* in degrees.

What Are Some Heat Sources?

Science Concepts

Read the Ideas more than once. Do your best to remember them.

1. Heat is energy that moves from warmer objects to cooler objects.
2. Temperature is a measure of how hot or cold something is.
3. Temperature is measured in degrees.
4. Heat moves from warmer things to things with cooler temperatures.
5. Some things, like oven mitts, can slow the movement of heat.
6. Many things that give off light also give off heat.
7. The flame from a candle gives off light and heat, which melts the wax.
8. Rubbing things together produces friction.
9. Friction produces heat.
10. When you rub your hands together, they become warm.



What Are Some Plant Structures?

Science Words

Say each word quietly to yourself. Then read the meaning.

Read the tip to help you remember.

nutrient [NOO•tree•uhnt] material that living things such as plants need to grow

The vowel sound at the beginning of *nutrient* is the same as the vowel sound in *root*. Roots take in *nutrients* from the soil.

reproduce [ree•pruh•DOOS] make new living things like themselves

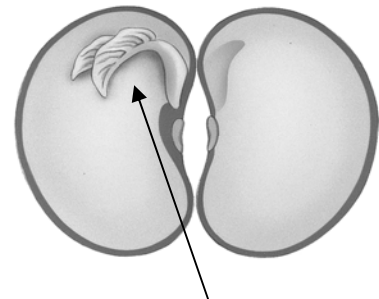
Reproduce has the word *produce* in it. To produce is to make something. When plants *reproduce* they make something—new plants like themselves.

flower [FLOW•er] the plant part that helps some plants reproduce

Flower and *fruit* begin with the same sound.
The *flower* grows into a fruit.

seed [SEED] a plant part that can grow to become a new plant. Inside a seed is a small plant and food for the small plant.

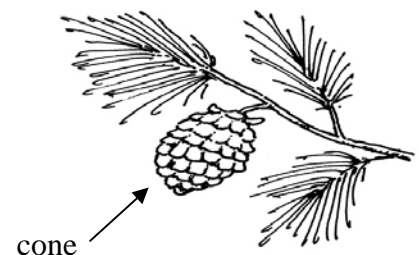
Seed and *feed* sound alike. The food in a *seed* feeds the tiny plant inside it.



Tiny plant inside a bean seed

cone [KOHN] a plant part that holds the seeds of the plant

Cone and *contain* begin in the same way. The *cone* contains a plant's seeds.



What Are Some Plant Structures?

Science Concepts

Read the Ideas more than once. Do your best to remember them.

1. Roots hold a plant in the ground and take in water and nutrients.
2. Plants and other living things need nutrients to grow.
3. A plant's stems carry water and nutrients to the rest of the plant.
4. Most trees have thick, woody stems.
5. Most flowers have soft, thin stems.
6. Plants use water, air, and light energy to make their own food.
7. Food, which is made in a plant's leaves, is carried to the rest of the plant.
8. Some plants have flowers that grow to become fruit.
9. Fruit contains seeds, which can sprout and become new plants
10. Some plants have cones that contain the plant's seeds.

How Do Plants Respond to Their Environment?

Science Words

Say each word quietly to yourself. Then read the meaning.

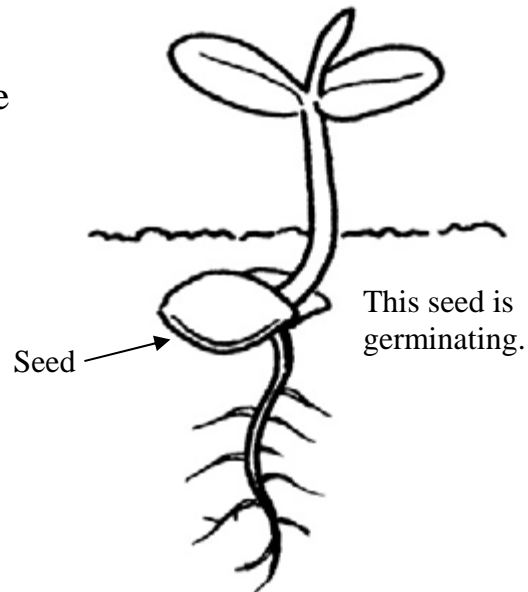
Read the tip to help you remember.

environment [en•VY•ruhn•muht] all the living and nonliving things in a place

Environment and *everything* begin with the same sound. An *environment* is made up of everything in a place.

germinate [JER•muh•naye] start to grow

Germinate and *wait* end with the same sounds. Seeds wait for the right conditions before they *germinate*.



How Do Plants Respond to Their Environment?

Science Concepts

Read the Ideas more than once. Do your best to remember them.

1. The environment is all the living and nonliving things in a place.
2. Water, light, and air are part of the environment.
3. Plants respond to their environment.
4. Plants grow toward light.
5. Some flowers open during the daylight and close at night.
6. Plants respond to rising temperatures in their environment.
7. Buds, which may become leaves, grow when the temperature gets warm.
8. Seeds may germinate when the temperature gets warm.
9. Freezing temperatures harm fruit growing on trees.
10. Gravity makes a plant's roots grow down and its stem grow up.

How Can We Classify Plants?

Science Words

Say each word quietly to yourself. Then read the meaning.

Read the tip to help you remember.

flowering plant [FLOW•er•ing PLANT] a plant that makes flowers

The flower of a *flowering plant*, such as an orchid, is the part that makes fruit with seeds.

non-flowering plant [NAHN•flow•er•ing PLANT] plants that do not make flowers

No and *non* begin in the same way. *Non-flowering* plants make no flowers. The seeds of many non-flowering plants grow in cones.

spores [SPAWRZ] plant parts that can grow into new plants

Spore and *more* rhyme. *Spores* grow more new plants.

How Can We Classify Plants?

Science Concepts

Read the Ideas more than once. Do your best to remember them.

1. You can classify or group plants in many ways.
2. You can classify plants as vines, trees, and shrubs.
3. You can classify plants by the shape, color, and size of their leaves.
4. Plants may be flowering or non-flowering.
5. Orchids and magnolias are flowering plants.
6. The flowers of a plant make fruits with seeds.
7. Pine trees are non-flowering plants.
8. The cones of a non-flowering plant hold its seeds.
9. Mosses and ferns are non-flowering plants that make spores.
10. Spores can grow into new plants.



How Can We Classify Vertebrates?

Science Words

Say each word quietly to yourself. Then read the meaning.

Read the tip to help you remember.

vertebrate [VER•tuh•brit] an animal with a backbone

Vertebrate and *vulture* begin with the same sound. A vulture is a *vertebrate* because it has a backbone.

Bats, bears, birds, and beavers all have backbones, so they are also *vertebrates*.



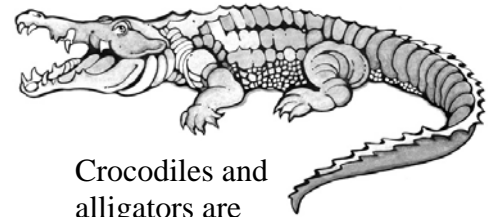
A vulture

mammal [MAM•uhl] an animal with fur or hair covering its body and lungs for breathing air

Mammal, *mother*, and *milk* begin with the same sound. A young *mammal* drinks its mother's milk.

reptile [REP•tyl] an animal with scales covering its body

Reptile and *crocodile* end with the same sounds. A crocodile is a *reptile* with scales that look like tiles.



Crocodiles and alligators are reptiles.

amphibian [am•FIB•ee•uhn] an animal with smooth, moist skin that starts life in water and moves to land

Frog begins with a sound in the middle of *amphibian*. A frog is an *amphibian*.

How Can We Classify Vertebrates?

Science Concepts

Read the Ideas more than once. Do your best to remember them.

1. Vertebrates are animals that have a backbone.
2. Amphibians are vertebrates with smooth, moist skin.
3. Young amphibians live in water, but adults live on land.
4. Young amphibians have gills, but many adults have lungs.
5. Toads, frogs, newts, and salamanders are amphibians.
6. Reptiles have scales covering their bodies.
7. Lizards, snakes, and alligators are reptiles.
8. Birds are vertebrates with feathers, wings, and beaks.
9. Young birds hatch from eggs.
10. Mammals have fur or hair and most give birth to live young.



How Can We Classify Invertebrates?

Science Words

Say each word quietly to yourself. Then read the meaning.

Read the tip to help you remember.

invertebrate [in•VER•tuh•brit] an animal without a backbone. Jellyfish, worms, and crabs are invertebrates.

Incorrect and *invertebrate* begin in the same way. *Incorrect* means “not correct.” An *invertebrate* does *not* have what a vertebrate has—a backbone.

arthropod [AR•thruh•pahd] an invertebrate with jointed legs and a body divided into segments, or parts. Spiders and ticks are arthropods.

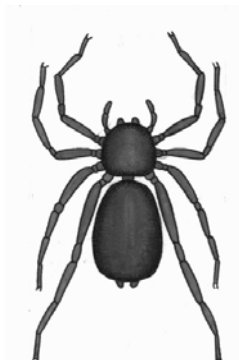
Arthropod and *armor* begin with the same sounds. A hard outer covering, like armor, helps keep an *arthropod* safe.

insect [IN•sekt] an arthropod with six legs, two antennae, and a body divided into three main segments or parts

Insect has six letters, one letter for each leg.



This ladybug is an arthropod and an insect.



This spider is an arthropod, but it is not an insect.

How Can We Classify Invertebrates?

Science Concepts

Read the Ideas more than once. Do your best to remember them.

1. Invertebrates are animals without backbones.
2. An octopus, a spider, a worm, and a lobster are invertebrates.
3. Arthropods are invertebrates.
4. Arthropods have a hard, outer covering.
5. The body of an arthropod is divided into segments, or parts.
6. Spiders, scorpions, and insects are arthropods.
7. Insects are the largest group of arthropods.
8. Insects have six legs, three body parts, and two antennae.
9. Butterflies, ants, and beetles are insects.
10. Squids and snails are invertebrates, but they are not arthropods.



How Do Living Things Change With the Seasons?

Science Words

Say each word quietly to yourself. Then read the meaning.

Read the tip to help you remember.

hibernate [HY•ber•nayt] move very little and use little energy during the winter. Animals that hibernate live off fat stored in their body.

Hibernate and *hide* begin with the same sound. Animals that *hibernate* seem to hide from winter.

migrate [MY•grayt] move from one place to another to find food or reproduce

Migrate and *move* begin with the same sound. Animals that *migrate* move in search of food.

germination [jer•muh•NAY•shuhn] the sprouting of a seed

Germination and *grow* begin with different sounds, but the same letter. In spring, the *germination* of seeds means they start to grow.

How Do Living Things Change With the Seasons?

Science Concepts

Read the Ideas more than once. Do your best to remember them.

1. In spring, seeds germinate and buds grow on trees and shrubs.
2. In spring, many animals reproduce, or have young.
3. In spring some animals migrate to reproduce or find food.
4. In summer, many kinds of plants grow flowers and then fruits.
5. In summer, young animals grow and become stronger.
6. In fall, some trees drop their fruits and nuts.
7. In fall, the leaves of trees may change color and fall off.
8. In fall, many vegetables are ready to harvest.
9. In fall, some animals migrate while others gather and store food.
10. In winter, some kinds of animals hibernate, and trees stop growing.



How Do Plants and Animals Get Energy?

Science Words

Say each word quietly to yourself. Then read the meaning.

Read the tip to help you remember.

producer [pruh•DOOS•er] a living thing that makes its own food. Plants are producers.

Producer, produce, and plant begin with the same sound. *Produce* means to make something. A plant is a *producer* because it produces its own food.

photosynthesis [foht•oh•SIN•thuh•sis] the process a green plant uses to make food

Photosynthesis and photograph begin the same way. You need light in order to take a photograph. Plants need light in order to do *photosynthesis*.

consumer [kuhn•SOOM•er] a living thing that eats other living things

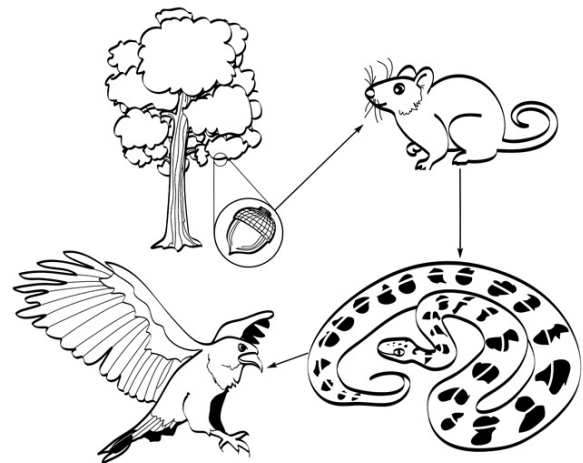
Consumer and couldn't begin with the same sound. A *consumer* couldn't live without a producer.

food chain [FOOD CHAYN] the path of energy stored in food as it passes from plants to animals. A food chain begins with producers.

Think of a keychain or a necklace.

Each is made of links that are connected to one another.

The links in a *food chain* are plants and animals. The links are connected in an order that shows which animal is eating which.



This drawing shows an example of a food chain.

How Do Plants and Animals Get Energy?

Science Concepts

Read the Ideas more than once. Do your best to remember them.

1. Green plants are called producers because they make their own food.
2. The process plants use to make their food is photosynthesis.
3. Plants use light energy to change water and carbon dioxide into sugar.
4. Plants store the sugar or use it as food for growth.
5. Plants give off oxygen during photosynthesis.
6. Animals get energy by eating plants or by eating other animals.
7. Animals are consumers because they eat other living things.
8. Energy stored in a plant passes to the animal that eats the plant.
9. Energy passes from one animal to another as each is eaten.
10. The path of energy moving from one living thing to another is a food chain.