Interactive Glossary

As you learn about each term, add notes, drawings, or sentences in the extra space. This will help you remember what the terms mean. Here are some examples.

fungi [FUHN•jee] **A group of organisms that get nutrients by decomposing other organisms.**

A mushroom is an example of fungi.

physical change [FIHZ•ih•kuhl CHAYNJ] **Change in the size, shape, or state of matter with no new substance being formed.**

When I cut paper in half, that's a physical change.

Glossary Pronunciation Key

With every glossary term, there is also a phonetic respelling. A phonetic respelling writes the word the way it sounds, which can help you pronounce new or unfamiliar words. Use this key to help you understand the respellings.

Sound	As in	Phonetic Respelling	Sound	As in	Phonetic Respelling
a	b**a**t	(BAT)	oh	**o**ver	(OH•ver)
ah	l**o**ck	(LAHK)	oo	p**oo**l	(POOL)
air	r**a**re	(RAIR)	ow	**ou**t	(OWT)
ar	**ar**gue	(AR•gyoo)	oy	f**oi**l	(FOYL)
aw	l**a**w	(LAW)	s	**c**ell	(SEL)
ay	f**a**ce	(FAYS)		**s**it	(SIT)
ch	**ch**apel	(CHAP•uhl)	sh	**sh**eep	(SHEEP)
e	t**e**st	(TEST)	th	**th**at	(THAT)
	m**e**tric	(MEH•trik)		**th**in	(THIN)
ee	**ea**t	(EET)	u	p**u**ll	(PUL)
	f**ee**t	(FEET)	uh	med**a**l	(MED•uhl)
	sk**i**	(SKEE)		tal**e**nt	(TAL•uhnt)
er	pap**er**	(PAY•per)		penc**i**l	(PEN•suhl)
	f**er**n	(FERN)		**o**ni**o**n	(UHN•yuhn)
eye	**i**dea	(eye•DEE•uh)		play**ful**	(PLAY•fuhl)
i	b**i**t	(BIT)		d**u**ll	(DUHL)
ing	go**ing**	(GOH•ing)	y	**y**es	(YES)
k	**c**ard	(KARD)		r**i**pe	(RYP)
	kite	(KYT)	z	bag**s**	(BAGZ)
ngk	ba**nk**	(BANGK)	zh	trea**s**ure	(TREZH•er)

A

acceleration [ak•sel•er•AY•shuhn] **Any change in the speed or direction of an object's motion** (p. 418)

axis [AK•sis] **The imaginary line around which Earth rotates** (p. 112)

C

carnivore [KAHR•nuh•vawr] **An animal that eats only other animals** (p. 530)

change of state [CHAYNJ uhv STAYT] **A physical change that occurs when matter changes from one state to another, such as from a liquid to a gas** (p. 262)

chemical change [KEM•ih•kuhl CHAYNJ] **A reaction or change in a substance, produced by chemical means, that results in a different substance** (p. 299)

chemical energy [KEM•ih•kuhl EN•er•jee] **Energy that can be released by a chemical reaction** (p. 333)

complete metamorphosis [kuhm•PLEET met•uh•MAWR•fuh•sis] **A complex change that most insects undergo that includes larva and pupa stages** (p. 473)

computer model [kuhm•PYOO•ter MOD•l] **A computer program that models an event or object** (p. 51)

condensation [kahn•duhn•SAY•shuhn] **The process by which a gas changes into a liquid** (p. 263)

constellation [kahn•stuh•LAY•shuhn] **A pattern of stars that form an imaginary picture or design in the sky** (p. 116)

conduction [kuhn•DUK•shuhn] **The movement of heat between two materials that are touching** (p. 376)

consumer [kuhn•SOOM•er] **A living thing that can't make its own food and must eat other living things** (p. 520)

conductor [kuhn•DUK•ter] **Materials that let heat travel through them easily** (p. 390)

convection [kuhn•VEK•shuhn] **The movement of heat in liquids and gases from a warmer area to a cooler area** (p. 377)

conservation [kahn•ser•VAY•shuhn] **The preserving and protecting of a resource** (p. 550)

D

data [DEY•tuh] **Individual facts, statistics, and items of information** (p. 35)

decomposer [dee•kuhm•POHZ•er] **A living thing that gets energy by breaking down dead organisms and animal wastes into simpler substances** (p. 522)

dormancy [DAWR•muhn•see] **In a state of rest or inactivity** (p. 504)

density [DEN•suh•tee] **The amount of matter in an object compared to the space it takes up** (p. 238)

E

electrical energy [ee•LEK•trih•kuhl EN•er•jee] **Energy that comes from electric current** (p. 333)

deposition [dep•uh•ZISH•uhn] **The dropping or settling of eroded materials** (p. 166)

electromagnet [ee•lek•troh•MAG•nit] **A temporary magnet caused by an electric current** (p. 276)

design [dih•ZYN] **To conceive something and to prepare the plans and drawings for it to be built** (p. 70)

energy [EN•er•jee] **The ability to do work and cause changes in matter** (p. 327)

engineering [en•juh•NIR•ing] **The use of scientific and mathematical principles to develop something practical** (p. 69)

erosion [uh•ROH•zhuhn] **The process of moving sediment from one place to another** (p. 166)

evaporation [ee•vap•uh•RAY•shuhn] **The process by which a liquid changes into a gas** (p. 263)

F

fertilization [fur•tl•ih•ZAY•shuhn] **The joining of an egg and sperm** (p. 444)

food chain [FOOD CHAYN] **A series of organisms that depend on one another for food** (p. 528)

food web [FOOD WEB] **A group of food chains that overlap** (p. 534)

force [FAWRS] **A push or a pull of any kind** (p. 416)

G

gas [GAS] **The state of matter that does not have a definite shape or volume** (p. 258)

germination [jer•muh•NAY•shuhn] **The sprouting of a seed** (p. 442)

H

heat [HEET] **The energy that moves between objects of different temperatures** (p. 374)

herbivore [HER•buh•vawr] **An animal that eats only plants, or producers** (p. 530)

heredity [huh•RED•ih•tee] **The process by which traits are passed from parents to offspring** (p. 481)

hibernation [hy•ber•NAY•shuhn] **A dormant, inactive state in which normal body activities slow** (p. 506)

hydroelectric energy [hy•droh•ee•LEK•trik EN•er•jee] **Electricity produced using the energy of falling water** (p. 356)

hypothesis [hy•PAHTH•uh•sis] **A possible explanation or answer to a question; a testable statement** (p. 9)

I

igneous rock [IG•nee•uhs RAHK] A type of rock that forms from melted rock that cools and hardens (p. 192)

incomplete metamorphosis [in•kuhm•PLEET met•uh•MAWR•fuh•sis] Developmental change in some insects in which a nymph hatches from an egg and gradually develops into an adult (p. 473)

inference [IN•fer•uhns] An untested conclusion based on your observations (p. 19)

instinct [IN•stinkt] An inherited behavior of an animal that helps it meet its needs (p. 488)

insulator [IN•suh•layt•er] A material that does not let heat move through it easily (p. 392)

investigation [in•ves•tuh•GAY•shuhn] A procedure carried out to gather data about an object or event (p. 7)

K

kinetic energy [kih•NET•ik EN•er•jee] The energy of motion (p. 328)

L

learned behavior [LERND bee•HAYV•yer] A behavior that an animal doesn't begin life with but develops as a result of experience or by observing other animals (p. 486)

liquid [LIK•wid] **The state of matter that has a definite volume but no definite shape** (p. 258)

mass [MAS] **The amount of matter in an object** (p. 232)

M

magnet [MAG•nit] **An object that attracts iron and a few other (but not all) metals** (p. 273)

matter [MAT•er] **Anything that has mass and takes up space** (p. 232)

magnetic field [mag•NET•ik FEELD] **The space around a magnet in which the force of the magnet acts** (p. 274)

maturity [muh•TYOOR•ih•tee] **The stage at which organisms can reproduce** (p. 442)

magnetic pole [mag•NET•ik POHL] **The parts of a magnet at which its force is strongest** (p. 275)

mechanical energy [muh•KAN•ih•kuhl EN•er•jee] **The total potential and kinetic energy of an object** (p. 328)

metamorphic rock [met•uh•MAWR•fik RAHK] **A type of rock that forms when heat or pressure change an existing rock** (p. 196)

model [MOD•l] **A mental or physical representation of a process or object** (p. 49)

microscope [MY•kruh•skohp] **A tool that makes an object look several times bigger than it is** (p. 31)

moon phase [MOON FAYZ] **One of the shapes the moon seems to have as it orbits Earth** (p. 133)

migration [my•GRAY•shuhn] **The movement of animals from one region to another and back** (p. 507)

motion [MOH•shuhn] **A change of position of an object** (p. 411)

mineral [MIN•er•uhl] **A nonliving solid that has a crystal form** (p. 178)

motor [MOH•ter] **A device that uses electricity to make things move** (p. 276)

N

nonrenewable resource [nahn•rih•NOO•uh•buhl REE•sawrs] **A resource that, once used, cannot be replaced in a reasonable amount of time** (p. 214)

nutrients [NOO•tree•uhnts] **The parts of the soil that help plants grow and stay healthy** (p. 516)

nymph [NIMF] **An immature form of an insect that undergoes incomplete metamorphosis** (p. 473)

O

observation [ahb•zuhr•VAY•shuhn] **Information that you gather with your senses** (p. 7)

omnivore [AHM•nih•vawr] **An animal that eats both plants and other animals** (p. 530)

orbit [AWR•bit] **The path of one object in space around another object** (p. 114)

P

pan balance [PAN BAL•uhns] **A tool that measures mass** (p. 32)

photosynthesis [foht•oh•SIHN•thuh•sis] **The process that plants use to make sugar** (p. 518)

physical change [FIZ•ih•kuhl CHAYNJ] **A change in matter from one form to another that doesn't result in a different substance** (p. 297)

physical property [FIZ•ih•kuhl PRAHP•er•tee] **Anything that you can observe about an object by using one or more of your senses** (p. 232)

pollination [pol•uh•NEY•shuhn] **The transfer of pollen from the male structures to the female structures of seed plants** (p. 446)

pollution [puh•LOO•shuhn] **Waste products that damage an ecosystem** (p. 548)

position [puh•ZISH•uhn] **The location of an object in relation to a nearby object or place** (p. 411)

potential energy [poh•TEN•shuhl EN•er•jee] **Energy that an object has because of its position or its condition** (p. 328)

producer [pruh•DOOS•er] **A living thing, such as a plant, that can make its own food** (p. 518)

prototype [PROH•tuh•typ] **The original or model on which something is based** (p. 71)

R

radiation [ray•dee•AY•shuhn] **The movement of heat without matter to carry it** (p. 379)

renewable resource [rih•NOO•uh•buhl REE•sawrs] **A resource that can be replaced within a reasonable amount of time** (p. 213)

resource [REE•sawrs] **Any material that can be used to satisfy a need** (p. 212)

rock [RAHK] **A solid substance made up of one or more minerals** (p. 192)

rotate [ROH•tayt] **To spin on an axis** (p. 112)

S

science [SY•uhns] **The study of the natural world** (p. 5)

scientist [SY•uhn•tist] **A person who asks questions about the natural world** (p. 5)

sediment [SED•uh•ment] **Very small pieces of rock, sand, and silt carried by water** (p. 167)

space probe [SPEYS PROHB] **An unmanned spacecraft designed to explore the solar system and transmit data back to Earth** (p. 142)

sedimentary rock [sed•uh•MEN•tuh•ree RAHK] **A type of rock that forms when layers of sediment are pressed together** (p. 194)

speed [SPEED] **The measure of an object's change in position during a certain amount of time** (p. 414)

solar energy [SOH•ler EN•er•jee] **The power of the sun** (p. 360)

spring scale [SPRING SKAYL] **A tool that measures forces, such as weight** (p. 32)

solid [SAHL•id] **The state of matter that has a definite shape and a definite volume** (p. 258)

states of matter [STAYTS uhv MAT•er] **The physical forms (such as solid, liquid, and gas) that matter can exist in** (p. 258)

T

technology [tek•NOL•uh•jee] **Any designed system, product, or process used to solve problems** (p. 87)

telescope [TEL•uh•skohp] **A device people use to observe distant objects with their eyes** (p. 141)

three-dimensional model [THREE-di•MEN•shuh•nuhl MOD•l] **A model that has the dimension of depth as well as width and height** (p. 51)

tool [TOOL] **Anything used to help people shape, build, or produce things to meet their needs** (p. 86)

two-dimensional model [TOO-di•MEN•shuh•nuhl MOD•l] **A model that has the dimensions of width and height only** (p. 49)

V

velocity [vuh•LAHS•uh•tee] **The speed of an object in a particular direction** (p. 414)

volume [VAHL•yoom] **The amount of space that matter takes up** (p. 236)

W

weathering [WETH•er•ing] **The breaking down of rocks on Earth's surface into smaller pieces** (p. 165)

wind energy [WIND EN•er•jee] **The energy of moving air, which can be used to generate electricity** (p. 358)

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