

## Glossary

Sequenced Level

Read Naturally created this glossary as a reference book for use with Read Naturally Encore II, Level 5.6. The definitions provided correspond to the words as they are used in the stories in this level.
It is not a general dictionary.


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## accurately ${ }^{22}$

Accurately means precisely, correctly, or without any errors. I tried to draw the map accurately so that people could follow it without getting lost.

## calculate ${ }^{24}$

Calculate means to use math to solve a problem or answer a question. Elena needs to calculate the area of her living room so that she knows how much carpet to buy.

## colossal ${ }^{9}$

Colossal means extremely large.

## complicated ${ }^{28}$

Complicated means hard to understand or solve, often due to having many parts. When I took apart the watch and saw all the parts, I knew it was too complicated for me to fix.

## course ${ }^{23}$

A course is the path that something moves along.
The ship followed the course marked on the map so it would not get lost.

## designed ${ }^{16}$

Designed means made the original plans for something. The architect designed the new wing of the building.

## dozens ${ }^{13}$

Dozens means a lot or very many, usually more than 24 but less than 200. Leko pitched the ball dozens of times before his arm got tired.

## electronic ${ }^{12}$

Electronic means able to automatically handle a set of procedures by controlling the movement of electricity. Radios, TVs, and computers are electronic devices.

## engineers ${ }^{15}$

Engineers are people who are skilled at planning and designing things such as bridges, buildings, or electronic devices.

## evolution ${ }^{30}$

Evolution is the process of changing and developing over time, often in a way that makes something better. My history book showed an example of the evolution of travel, from foot to horseback to car to jet.

## fraction ${ }^{26}$

A fraction is a small part of a whole. Most students in my class prefer vanilla ice cream, but a fraction prefer chocolate.

## limited ${ }^{29}$

Limited means able to do only certain kinds of things. Ice skates can help people move fast, but they are limited because they work well only on smooth ice.

## military ${ }^{20}$

A military is a group of soldiers and their weapons. My uncle served in the military for four years; during that time, he fought in a war.

## panels ${ }^{14}$

Panels are flat pieces of material used to cover something. Instead of wallpaper, we have oak panels covering the walls of our kitchen.


## portable ${ }^{10}$

Portable means easy to move or carry. A cell phone is a portable phone, but the first telephones were large and often attached to walls.

## project ${ }^{18}$

A project is a job or task that usually has several parts and needs planning. Each of us worked on a different part of the project-Jack did the interviews, Mary did the research, and I wrote the report.

## recognized ${ }^{11}$

Recognized means named, identified, or officially accepted. Terrell is recognized as the fastest runner in the city; the newspaper printed a story about him after he won the big race.

## Colossal Computer (continued)

## sponsored ${ }^{17}$

Sponsored means gave money to support the work of a person or group. Local business sponsored the parade by paying for the costs of the parade.

## standards ${ }^{27}$

Standards are rules or models used to judge or evaluate things. By most people's standards, a good neighborhood is one that has very little crime.

## tables ${ }^{21}$

Tables are groups of data put together in an orderly way, often in columns and rows. I have a paper that shows all the multiplication
 tables from 1 to 12.

## trajectories ${ }^{25}$

Trajectories are the curving paths that objects follow when they are shot or thrown. Bullets have different trajectories depending on whether they are shot up into the air or shot straight ahead.

## World War II ${ }^{19}$

World War II was a major war that lasted from 1939 to 1945. The war involved many countries from all over the world.

## additional ${ }^{43}$

Additional means more or extra. My friends are coming to dinner, so I will cook additional food.

## afford $^{31}$

Afford means to have the money to pay for something. If I save my money, I can afford to buy a new bike next year.

## assembly line ${ }^{35}$

An assembly line is a method of making goods in which each worker does one task as the item moves from one worker to the next.

## average ${ }^{42}$

Average means usual, ordinary, or typical.
Today was an average day with nothing special happening.

## benefits ${ }^{40}$

Benefits are good, positive, or helpful things. One of the benefits of being on a sports team is getting to be friends with your teammates.

## bolts ${ }^{38}$

Bolts are metal fasteners that have unpointed ends and are used to attach parts together.


## conveyor belts ${ }^{36}$

Conveyor belts are machines that move parts from one worker to the next.


## developments ${ }^{44}$

Developments are important changes or happenings that make a difference to the future. Developments like the invention of the steamboat and the expansion of railroads allowed people to travel long distances more easily.

## efficient ${ }^{32}$

Efficient means working well without wasting time, money, or energy. It is more efficient to bake many cookies all at once than it is to bake one cookie at a time.

## employees ${ }^{41}$

Employees are the people who work for a person or a company and are paid for their work. The employees at the restaurant serve meals to the people who eat there.

## founded ${ }^{33}$

Founded means set up or started for the first time. The group of teachers founded the new school last year.

## implementing ${ }^{48}$

Implementing means carrying out or putting into action. The architect watched over the builders to make sure they were implementing his design plans correctly.

## industry ${ }^{45}$

An industry is all the businesses that provide related services or products. People who grow crops, own grocery stores, or own restaurants are part of the food industry.

## manufacturing ${ }^{51}$

Manufacturing is the use of machines to make things in large numbers. Manufacturing is a large part of the company's business-the company uses machines to make various products.

## mass-produced ${ }^{34}$

Mass-produced means made in large numbers, often with the help of machines. Long ago, people made books by writing them out one by one; after the invention of printers, people mass-produced thousands of copies of the same book.

## muffler ${ }^{37}$

A muffler is a device that attaches to the exhaust pipe on a car and is used to reduce noise coming from the engine.

## obviously ${ }^{46}$

Obviously means clearly, plainly, or as one could easily see. Obviously, Martha will fail the math test because she left half the questions blank.

## Henry Ford (continued)

## productivity ${ }^{47}$

Productivity is a measure of how much work someone or something can do in a certain amount of time. Seth wants to improve the productivity of his bakery; right now he can make 30 cakes a day, but he wants to make 50 a day.

## schedules ${ }^{49}$

Schedules are plans for what to do at different times. Max and his brother had different work schedules-Max worked in the mornings, and his brother worked in the evenings.

## stages ${ }^{39}$

Stages are steps in a process or project. Washing and peeling the apples are the first stages in making apple pie.

## transformed ${ }^{50}$

Transformed means changed completely. The Internet transformed the way many people communicate by making it possible to instantly share images, videos, and sound with millions of other people.

## $10,000-m e t e r$ race ${ }^{17}$

A 10,000 -meter race is a contest in which people run for 10,000 meters, or a little more than 6 miles.

## aspiration ${ }^{16}$

An aspiration is something that a person hopes to do someday. Jill's aspiration is to become a doctor, so she reads lots of books about medicine.

## bestowing ${ }^{26}$

Bestowing means giving a gift, title, or honor to someone. The basketball league honored the champion by bestowing a trophy on the first-place team.

## boarding school ${ }^{12}$

A boarding school is a school that houses and feeds its students.

## excelled ${ }^{13}$

Excelled means did extremely well at something. We picked her to be on our softball team because she excelled at the sport.

## expected ${ }^{20}$

Expected means thought likely to happen. Dark
clouds gathered, and so rain was expected.

## heritage ${ }^{24}$

Heritage is a collection of traditions or values that is inherited or passed down from earlier generations, like a value or tradition. Gino's mother passed on her Italian heritage to him by cooking Italian food, celebrating some Italian holidays, and teaching him to speak Italian.

## impoverished ${ }^{9}$

Impoverished means very poor. The impoverished man has no money and has not eaten in two days.
initially ${ }^{19}$
Initially means at first. Ryan didn't like Jason initially, but now they are best friends.

## interview ${ }^{18}$

Interview means to ask someone questions to get information about his or her life or experiences or about a topic that person knows well. A reporter came to interview the movie star about his life and his job.

## Lakota ${ }^{23}$

The Lakota are a tribe of American Indians living in what is now North Dakota and South Dakota.

## lap ${ }^{22}$

A lap is one trip around a track.

## motivational ${ }^{27}$

Motivational means making others excited about doing a certain thing. The motivational coach made his players want to come to practice even on weekends.

## place ${ }^{21}$

Place means to finish first, second, or third in a contest. Jamie didn't win the race, but she was glad to place; she finished third.

## pursuing ${ }^{10}$

Pursuing means trying to do something. Becky is pursuing a career in art; she takes art classes, tries to sell her paintings, and is looking for a job teaching art.

## realize ${ }^{25}$

Realize means to make something happen after working hard at it. After studying hard for four years, Anton is about to realize his goal of graduating from medical school.

## scholarship ${ }^{14}$

A scholarship is money awarded to a student to help him or her pay for school.

## titles ${ }^{15}$

Titles are championships. The football team won eight titles in ten years.

## unfortunately ${ }^{11}$

Unfortunately means sadly or unluckily.
Unfortunately, I will not be able to go to my friend's birthday party.

## barbed wire ${ }^{28}$

Barbed wire is strong wire with sharp points sticking out all along it. A barbed-wire fence surrounded the prison to keep the prisoners from
 escaping.

## border ${ }^{36}$

A border is a line dividing two countries or areas.


## breach ${ }^{43}$

Breach means to break through or act against a boundary or a law. The thieves plan to breach the bank's security systems by cutting off electricity to the building.

## communist ${ }^{31}$

Communist means having to do with a system in which the government owns and operates a country's property and businesses.

## concrete ${ }^{29}$

Concrete is a strong, hard building material made from sand, gravel, cement, and water. Sidewalks and buildings are often made from concrete.

## consequently ${ }^{38}$

Consequently means as a result of something.
We had no umbrellas in the rain; consequently, we got wet.

## democratic ${ }^{32}$

A democratic system of government is one in which the people elect the leaders.
despite ${ }^{33}$
Despite means even though something is true.
Despite losing its first game, the football team went on to win the championship.
exit ${ }^{41}$
An exit is a way to get out or leave. Exit signs show the way out of a building.

## exodus ${ }^{40}$

An exodus is when a large number of people leave an area. After the flood, an exodus took place; almost everyone left the ruined city.

## patrolled ${ }^{42}$

Patrolled means guarded an area by regularly checking different locations to prevent problems or crime. The police officer patrolled the park; he drove by every hour to make sure everything was OK.

## physical ${ }^{34}$

Physical means actual or existing in the real world.
The car accident didn't dent my car, but the red paint on my white bumper was physical evidence that my car had been hit.

## protesters ${ }^{44}$

Protesters are people who get together to show that they are against something or do not agree with something. To show that they were against the war, protesters met in front of the capitol several times carrying signs that said, "No More War!"

## relatively ${ }^{37}$

Relatively means in comparison to something else. Standing next to her tall brother, she looked relatively short.

## remnants ${ }^{46}$

Remnants are small parts or pieces that are left over after the main part is gone. Hot ash and coals were the only remnants of the campfire; they were all that was left after the fire burned out.

## rule ${ }^{45}$

Rule is the control of a government. The king's rule lasted for a long time; he was in power for 35 years.

## separations ${ }^{30}$

Separations are divisions between things or people that keep them apart.

## via ${ }^{39}$

Via means through or using. Mom pays her bills via the Internet rather than using mail.

## workforce ${ }^{35}$

A workforce is all of the people in an area who do jobs. Much of the city's workforce is employed by a large computer company.

## atmosphere ${ }^{30}$

The atmosphere is the air or gases that surround a planet, moon, or star. A rocket must pass through Earth's atmosphere before it reaches outer space.

## bursts ${ }^{25}$

Bursts are explosions or forceful actions. During the Independence Day celebration, the bursts of the fireworks entertained the crowd.

## command module ${ }^{20}$

A command module is a section of a spacecraft that holds the crew and the equipment they need for safely returning to Earth. The command
 module can separate from the rest of the spacecraft.

## commander ${ }^{9}$

A commander is the leader who is officially in charge of a group and can give orders that other members of the group must obey.

## debris ${ }^{26}$

Debris is what is left after something has been destroyed or damaged. The people cleaned up the debris after the big storm.

## dehydration ${ }^{28}$

Dehydration is a condition in which one's body does not have enough water. After moving a lot and not drinking enough on the hot day, I experienced a headache, dry mouth, and dizziness due to dehydration.

## fellow ${ }^{11}$

Fellow means belonging to the same group or being of the same kind. I think my teacher is great, and my fellow students think so too.

## fuel cells ${ }^{18}$

Fuel cells are machines that make electricity by combining oxygen with a fuel.

## gravity ${ }^{24}$

Gravity is a force that pulls objects toward each other. Gravity pulls objects to the ground, such as apples that fall from trees.
ingenuity ${ }^{31}$
Ingenuity is the ability to be clever, creative, and skillful. The engineer showed ingenuity with his brilliant invention.

## intact $^{23}$

Intact means in one piece or not broken. The dishes arrived intact, even though they were shipped 10,000 miles.

## intended ${ }^{10}$

Intended means planned or meant. He intended to buy his mother a present, so he went to the store.

## launched $^{12}$

Launched means set off upward, into the air. The birds on the lawn launched off into the trees when they saw the cat.


## life-support systems ${ }^{22}$

Life-support systems are machines that help people do things necessary to stay alive. Life-support systems help people breathe when they can't breathe by themselves.

## lunar lander ${ }^{21}$

A lunar lander is a small spacecraft used for traveling from the main spacecraft to the surface of the moon.


## mission ${ }^{13}$

A mission is a special job, duty, or goal. The rescuers set out on a mission to find and save the people who were hurt or lost in the storm.

## mission control ${ }^{15}$

A central office or place for managing an operation. Mission control in Houston, Texas, was the landbased center for many space missions.

## navigation ${ }^{27}$

Navigation is the act of finding a way through or across an area. The map helped our navigation through the forest; we would not have been able to find our way home without it.

## Successful Failure (continued)

## on track ${ }^{14}$

If something or someone is on track, everything is going as it is supposed to. Barry is on track to graduate from high school; he passed all of his classes last year, and he is doing well again this year.

## oxygen tank ${ }^{16}$

An oxygen tank is a container for storing oxygen, a gas that people need to live. The scuba diver carries an oxygen tank on his back
 so he will have air to breathe while underwater.

## panel ${ }^{1 /}$

A panel is a thin, hard, rectangular piece of material. The workers used a metal panel to cover the hole in the wall.

## spacecraft ${ }^{29}$

A spacecraft is a vehicle that can travel in outer space.

## survival ${ }^{19}$

Survival is the continuation of life or existence. Paul's good hunting skills made his survival in the woods possible because he was able to get enough food to stay alive.

## Conditions Count

## aspects ${ }^{39}$

Aspects are parts or features of something. Tasha likes two aspects of school; she likes doing her reading assignments and working on projects with friends.

## concern ${ }^{45}$

A concern is something that someone cares or worries about. Weather is a concern for farmers because farmers need the right amount of sun and rain to grow their crops.

## conditions ${ }^{32}$

Conditions are the ways things are in a certain area. Moss stays green and healthy when it grows in the right conditions; it does well in areas that stay shady and damp.

## count ${ }^{33}$

Count means to matter or to be important. Hard work and training count in sports; you probably won't do well without those things.

## degrees ${ }^{42}$

Degrees are units to measure how hot or cold something is.

## determines ${ }^{48}$

Determines means controls or decides something. How hard you press on the pedal determines how fast the car will go.

## effect ${ }^{46}$

An effect is the result of something. A stomachache can be the effect of eating too much candy.

## Fahrenheit ${ }^{43}$

Fahrenheit is a scale used to measure temperature. Water freezes when its temperature is 32 degrees Fahrenheit.

## fearsome ${ }^{36}$

Fearsome means frightening, or causing fear. My dog ran under the bed when it heard the loud and fearsome thunder of the approaching storm.

## focus ${ }^{34}$

Focus means to pay close attention to something. I am going to focus on my homework because I want to get a good grade.

## habits ${ }^{40}$

Habits are repeated behaviors or normal ways of doing things. A cat's grooming habits include licking its fur.

## hatchlings ${ }^{49}$

Hatchlings are animals that have just come out of their eggs. Some birds can already walk as hatchlings; other birds can't walk until they are
 a few weeks old.

## images ${ }^{37}$

Images are words or visual examples, like pictures or film, that show what something looks like. Videos, photos, and news stories gave people images of what life was like in the war zone.

## impression ${ }^{38}$

An impression is the idea or general sense that a person has about something. Sara's impression of Lee was that he was rich, because he wore nice clothes and had a new car.

## incubating ${ }^{47}$

Incubating means developing before hatching.
The hen sits on her eggs while they are incubating.

## nostrils ${ }^{55}$

Nostrils are openings in the nose for breathing and smelling.


## region ${ }^{52}$

A region is a large place or area of land. Snow and ice cover the northern region of Canada.

## reptiles ${ }^{44}$

Reptiles are cold-blooded animals that breathe with lungs, move by crawling, and have scaly skin.

snap ${ }^{53}$
A snap is a short, sudden period of weather.

## status ${ }^{35}$

A status is a rank or position compared to others.

## Conditions Count (continued)

## submerge ${ }^{54}$

Submerge means to go below or to put below the surface of something, usually water. Hippos can hold their breath for five minutes when they submerge themselves.

## swamps ${ }^{51}$

Swamps are areas of spongy, muddy land that are often filled with water.


## temperature ${ }^{41}$

Temperature is a measure of how hot or cold something is. It was really hot outside today; the temperature was 98 degrees Fahrenheit.

## typically ${ }^{50}$

Typically means normally or usually. People's pets are typically cats or dogs, but some people have lizards for pets.

## by-products ${ }^{26}$

By-products are useful parts that are left over from something that has been made into a product. When trees are made into boards, sawdust and bark are two by-products that get used in many other ways.

## chemist ${ }^{17}$

A chemist is a scientist who studies the characteristics of chemical substances and what happens when those substances are combined, heated, cooled, or changed in some other way.

## conditions ${ }^{20}$

Conditions are the ways things are in a certain area. Moss stays green and healthy when it grows in the right conditions; it does well in areas that stay shady and damp.

## cosmetics ${ }^{29}$

Cosmetics are beauty products, or substances used to make the face, hair, and body more beautiful. Lipstick, mascara, and eye shadow are cosmetics.

## enrich ${ }^{30}$

Enrich means to add ingredients to the soil to make it a better food for plants. American Indians showed European settlers how to enrich the soil for their crops by burying fish with the seeds they were planting.

## expect ${ }^{11}$

Expect means to think something will happen.
The weather forecaster told us to expect rain later in the day.

## extract ${ }^{18}$

Extract means to pull, take, or get something out of another substance. In chemistry class, we learned to extract DNA from split peas.

## feed ${ }^{27}$

Feed is food for animals, especially farm animals. The farmer used hay and oats as feed for his horses.

## harvest ${ }^{22}$

Harvest means to gather or pick things, usually crops. The man will harvest the corn when it is done growing.

## ingredient ${ }^{9}$

An ingredient is one of the things a mixture is made of. Chocolate chips are an important ingredient in chocolate chip cookies.

## labels ${ }^{12}$

Labels are things with words or symbols that tell what something is. I knew what food was inside the cans because the labels said "corn"
 and "peas."

## livestock ${ }^{28}$

Livestock are animals that are raised on a farm.
Heather raises sheep, cows, pigs, and other livestock on her farm.

## matures ${ }^{21}$

Matures means fully develops. The dog is just a small puppy now, but when it matures, it will be over two feet tall.

## mayonnaise ${ }^{14}$

Mayonnaise is a thick dressing or spread made from eggs, oil, and vinegar. I like to put mayonnaise and mustard on my sandwich.

## packaging ${ }^{10}$

Packaging is the wrapping or container used for selling a product. The packaging on the candy bar was made of foil and red paper and showed the name of the company that made the candy.

## presence ${ }^{13}$

Presence is the fact that a person or thing is in a certain place. My dad's presence in my room made me feel safer during the storm; I was glad he was there with me.

## processed ${ }^{25}$

Processed means prepared or changed by being put through a set of steps. Old newspapers are processed at the recycling plant; they are shredded, mixed with liquid to make pulp, and then formed into clean, new paper.

## produced ${ }^{19}$

Produced means made or created. The oak tree produced acorns.

## The Sweet Beet (continued)

## source ${ }^{16}$

A source is a person, thing, or place that something comes from. Beehives are a source of honey.

## sweetener ${ }^{15}$

A sweetener is a substance that is added to food to make it taste sweeter. Honey is a sweetener, and so are sugar and maple syrup.

## transported ${ }^{24}$

Transported means moved from one place to another. Our furniture was transported in a moving truck from our old house to our new house.

## yanks ${ }^{23}$

Yanks means pulls or jerks. It hurts if someone yanks your hair.


## afflictions ${ }^{49}$

Afflictions are illnesses or problems that bring suffering or cause pain. When people get older, they may suffer from afflictions such as bad hearing and poor eyesight.

## ailments ${ }^{42}$

Ailments are sicknesses that are sometimes longlasting but usually not deadly. Last winter, many children missed school because they were sick with different ailments.

## asthma $^{37}$

Asthma is an illness that makes it hard to breathe.

## battled ${ }^{36}$

Battled means fought or struggled against something. The girl battled her fear of heights by going on the roller coaster anyway.

## bouts ${ }^{47}$

Bouts are periods of time during which a person struggles with something. His bouts with gambling caused him to lose all of his money.

## boxing ${ }^{45}$

Boxing is the sport of fighting using fists, often while wearing padded leather gloves.


## carriage ${ }^{38}$

A carriage is a vehicle, usually pulled by horses. Carriages were used more often before cars were invented.


## energy ${ }^{35}$

Energy is the power to work. Food gives energy to our bodies, and burning coals give energy to make electricity.

## exercise ${ }^{43}$

Exercise is movement of the body. Climbing a lot of stairs, jumping rope, walking, and biking are all forms of exercise.

## exploring ${ }^{40}$

Exploring means looking for something new or trying to find information about something. The people at the job fair were exploring the many things they could do for a living.

## limitations ${ }^{39}$

Limitations are things that can stop something from happening or stop something from improving. Two limitations kept Vivian from going to the party; it was too far away, and she did not have enough free time.

## Mount Rushmore ${ }^{33}$

Mount Rushmore is a mountain in South Dakota with a giant sculpture of four United States presidents carved into one side.


## natural world ${ }^{41}$

The natural world is what exists or occurs in nature and is not made or changed by people. Rain, lightning, dirt, and ocean waves are part of the natural world; plastic, lightbulbs, carpets, and swimming pools are not part of the natural world because they are made by people.

## permanent ${ }^{48}$

Permanent means lasting for a long time or meant to last forever. People lose their first teeth during childhood; then they grow permanent teeth that can last the rest of their lives.

## physical ${ }^{34}$

Physical means having to do with the body. Iceskating is good physical exercise.

## politician ${ }^{32}$

A politician is a person who tries to get elected to a job in government. A senator is a politician, and so is a mayor.

vibrant ${ }^{31}$
Vibrant means energetic or lively.

## Young Teddy Roosevelt (continued)

## weights ${ }^{44}$

Weights are heavy objects that people lift for exercise.

## wrestle ${ }^{46}$

Wrestle means to take part in a sport in which two players try to throw one another to the ground or hold one another down. The boys often wrestle to see who is stronger.

## announce ${ }^{10}$

Announce means to declare or make known. We will announce the birth of our new baby by sending out cards.

## creativity ${ }^{25}$

Creativity is the ability to think of new and interesting ideas. The stories she writes about wizards and dragons show that she has a lot of creativity.

## disc ${ }^{11}$

A disc is any object that is thin, flat, and round. A plate is a disc; so is a pizza.

## end zone ${ }^{21}$

The end zone is the area at either end of a playing field. The football player ran into the end zone to score a touchdown.


## freestyle ${ }^{23}$

Freestyle is a type of event in a sport where players can create their own movements in a competition.

## Frisbee ${ }^{9}$

A Frisbee is a brand name for a round, flat toy, usually made of plastic, that people throw back and forth to each other. People use
 Frisbees to play other games as well.

## labels ${ }^{15}$

Labels are brand names that companies give to the products they make to distinguish them from similar products. Many companies make jeans, but Jim's favorite labels are Levi's and Wrangler.

## participate ${ }^{20}$

Participate means to take part in, join, or get involved in something. The actors participate in the play, and the people in the audience come to watch.

## related ${ }^{12}$

Related means having to do with something else. Gasoline, oil, and tires are things related to cars.

## released ${ }^{16}$

Released means made something available or started selling something to the public. The band released a new song last week, and now all of the radio stations are playing it.

## routines ${ }^{24}$

Routines are demonstrations or shows of skill that take place while people watch. The dance routines at the state competition involved a lot of difficult moves and were fun to watch.

## space $^{13}$

Space is the place where the stars and the planets are.
tee ${ }^{22}$
A tee is an area from which a player makes a beginning move. The golfer walked to the tee to hit his first shot.

## term ${ }^{19}$

A term is a word or group of words that have a special meaning. A term for a person who doesn't eat meat is "vegetarian."

## trademarked ${ }^{18}$

Trademarked means noted by law as belonging to a business or person. Something that is trademarked cannot be used, copied, or sold without permission from the owner. Mickey Mouse's ears are trademarked by Disney, so only Disney can give permission to sell something with a picture of Mickey Mouse's ears on it.

## UFOs ${ }^{14}$

UFOs are objects in the sky that people cannot explain or identify. UFO stands for "unidentified flying object." My brother thought the
 UFOs we saw were flying saucers from outer space.

## version ${ }^{17}$

A version is something that is a little different from other things of the same kind. I liked the new color version of the movie better than the old black-andwhite version.

## anthem ${ }^{29}$

An anthem is a song honoring or praising something.

## banner $^{27}$

A banner is a flag.

## bay ${ }^{32}$

A bay is a body of ocean or lake water that has land around all but one side.


## boarded ${ }^{33}$

Boarded means stepped onto a ship, plane, bus, or train.

## defence ${ }^{37}$

Defence is the act of defending someone or something from attack. Defence, spelled with a C, is the British spelling; defense, spelled with an S , is the American spelling.

## forces ${ }^{31}$

Forces are groups of people organized for a purpose or goal.

## glorified ${ }^{38}$

Glorified means gave too much praise to something. The advertisement glorified the building that was for sale; it made the building seem large and fancy, but it was really just an old shed.

## inform ${ }^{35}$

Inform means to tell about. The museum worker will inform us about the painting; she will tell us who painted it and what the painting means.

## mission ${ }^{34}$

A mission is a special job, duty, or goal. The rescuers set out on a mission to find and save the people who were hurt or lost in the storm.

## national ${ }^{28}$

National means having to do with a country or nation. The bald eagle is the national bird of the United States.

## nevertheless ${ }^{39}$

Nevertheless means however or even so. Her driving caused a bad car accident; nevertheless, she continued to drive carelessly.

## prevail ${ }^{36}$

Prevail means to succeed. I hope that our team will prevail in the soccer tournament; if we do, we will get a big trophy.

## star-spangled ${ }^{26}$

Star-spangled means decorated or sprinkled with stars.

## verse ${ }^{40}$

A verse is a part of a song or poem that is made up of several lines. John sang the first verse of the song by himself, and then everyone joined in for the next two verses.

## War of $1812{ }^{30}$

The War of 1812 was a war between the United States and Britain. The war began in 1812 and lasted for two and a half years.

## broadcasting ${ }^{26}$

Broadcasting means sending out a radio or television program for people to hear or see.

## developed ${ }^{15}$

Developed means became bigger, more advanced, more mature, or more complex. New York City developed from a small settlement into one of the busiest and most important cities in the world.

## electronic ${ }^{14}$

Electronic means able to automatically handle a set of procedures by controlling the movement of electricity. Radios, TVs, and computers are electronic devices.

## era ${ }^{28}$

An era is a certain period of time. Each era has qualities that make it different from other periods of time. The era of space travel began in the 1950s.

## factories ${ }^{27}$

Factories are places where things are made. It is fun to go to car factories because you can see all the parts that are used to make cars.


## highlight ${ }^{17}$

A highlight is the most important or interesting part of an event or show. Seeing the baby polar bear was the highlight of our trip to the zoo.

## networks ${ }^{25}$

Networks are groups of radio or television stations that broadcast together.

## novelty ${ }^{24}$

Novelty is newness. Last week everyone was talking about the teacher's new haircut; this week the novelty has worn off, and people are talking about other things.

## option ${ }^{9}$

An option is a selection or choice. Clare thought about wearing jeans to the party but decided that her red dress was a better option.

## publicity ${ }^{21}$

Publicity is attention or notice from the public. Jesse got a lot of publicity after winning the race; many news shows wanted to talk to him, and millions of people knew his name.

## radio stations ${ }^{16}$

Radio stations are locations from which radio programs are sent.
reality ${ }^{10}$
A reality is what is true or actually happening. She always dreamed of becoming an author; when she sold her first book, that dream became a reality.

## take off ${ }^{22}$

Take off means to gain sudden popularity, success, or growth. The store sold only a few toys a day during the summer, but sales started to take off during the holidays; the store sold hundreds of toys a day.

## telegraph ${ }^{11}$

A telegraph is a machine that sends messages over wires or radios by a group of electrical signals.

## transformed ${ }^{13}$

Transformed means changed the looks, condition, or nature of something. The chef took a few common ingredients and transformed them into a delicious meal.

## transmitting ${ }^{12}$

Transmitting means sending from one place to another.

## transparent ${ }^{19}$

Transparent means clear or easy to see through. The clean window is transparent.
view ${ }^{20}$
View means to see, look at, or watch. You can view the baseball game at the stadium, or you can watch it from home on your television.

## The Birth of Television (continued)

## World War II ${ }^{23}$

World War II was a major war that lasted from 1939 to 1945. The war involved many countries from all over the world.

## World's Fair ${ }^{18}$

A World's Fair is an event where people meet from all over the world and show new art, inventions, and ideas.

## adjusted ${ }^{43}$

Adjusted means made small changes to something so that it would work better or fit better. He adjusted his belt so that his pants would not fall down.

## apprentice ${ }^{35}$

An apprentice is a person who is learning a job from a skilled master. The carpenter taught his apprentice the name of each woodworking tool.

## attitude ${ }^{31}$

An attitude is a person's state of mind or feelings about something. My sister has a good attitude about cleaning; she always does it with a smile on her face.

## design ${ }^{32}$

Design means to make original plans for something. The company hired an architect to design the new wing of its building.

## engineer ${ }^{30}$

An engineer is a person who is skilled in planning and designing things such as bridges, buildings, or electronic devices. The engineer made plans for a new highway ramp.

## ensure ${ }^{37}$

Ensure means to make certain. The teacher walked around the classroom to ensure that the students were all working quietly.

## exception ${ }^{41}$

An exception is something that is different or does not fit in with other things. It rained every day but Friday; Friday was the exception.

## financially ${ }^{33}$

Financially means in a way that relates to money. She was in a difficult situation financially, so she had to borrow money from friends in order to pay her bills.

## foreign ${ }^{45}$

Foreign means from a different country. Dad drives a foreign car; the car was made in another country.

## impressed ${ }^{46}$

Impressed means made to think highly of something. People were impressed by the artist's work; everyone noticed and remembered her drawings.

## insisted ${ }^{47}$

Insisted means strongly demanded. She worked hard to accomplish the goals that had been insisted upon by her teacher.

## line ${ }^{39}$

A line is a group of similar products from the same company. The company makes all kinds of baby products, but it is best known for its line of baby clothes.

## perfection ${ }^{29}$

Perfection is the state of being perfect or having no mistakes.

## perfectionist ${ }^{36}$

A perfectionist is a person who always tries to do things without making mistakes.

## prototype ${ }^{42}$

A prototype is one of the first examples of a product; it is used for testing so that the design can be changed before more copies are made.

## quality ${ }^{38}$

Quality means how good something is.

## reliable ${ }^{40}$

Reliable means able to be trusted or depended upon.

## telegrams ${ }^{34}$

Telegrams are messages sent by telegraph. The telegraph is a form of long-distance communication where messages are sent in code by
 electrical signals over a wire or by radio.

## valued ${ }^{44}$

Valued means thought highly of something or thought something was worth a lot. Grandma valued the photo album because it showed the history of our family.

## average ${ }^{14}$

Average means usual, ordinary, or typical. Today was an average day with nothing special happening.

## corn silk ${ }^{22}$

Corn silk is the soft, shiny threads at the tip of an ear of corn.


## cornstalk ${ }^{15}$

A cornstalk is the main stem of a corn plant.


## cultivating ${ }^{13}$

Cultivating means helping new plants grow from seeds or other plant parts. Some farmers were cultivating peppers and tomatoes, while others were growing corn and wheat.

## delicate ${ }^{21}$

Delicate means easily broken or damaged. The delicate glass vase broke when she dropped it.

## develop ${ }^{25}$

Develop means to help something form and grow. Athletes use exercise to develop strong muscles.

## ears ${ }^{16}$

Ears are the parts of some grain plants where the flower grows and develops into grain. Corn, wheat, and oats grow ears.


## extend ${ }^{17}$

Extend means to spread or branch out from something else. The tree's branches extend from its trunk.

## fertile ${ }^{27}$

Fertile means able to produce offspring, seeds, fruit, or crops. The fertile apple tree produced many apples.

## fossilized ${ }^{12}$

Fossilized means changed into a fossil, which is the hardened remains of a plant or animal.

## husk ${ }^{23}$

A husk is the dry leaves that cover an ear of corn.

## kernels ${ }^{20}$



Kernels are the seeds under the husks of corn.

## originated ${ }^{11}$

Originated means started or came to be. My tradition of planting a tree on my birthday originated when I turned 7, and I have been doing it every year since then.

## platter ${ }^{10}$

A platter is a large plate or shallow dish for serving food. Sheila brought out a platter of cookies.

## pollen-producing ${ }^{24}$

A pollen-producing plant or plant part is one that makes small grains of powder that are called pollen. Plants use pollen to help them create new plants.

## pollinated ${ }^{26}$

Pollinated means fertilized with pollen. Bees pollinated the cherry blossoms by carrying pollen between them; later, they developed cherries.

## potential ${ }^{19}$

Potential means possible or able to become. It hasn't rained in weeks and everything is very dry, so fires are a potential danger.

## resist ${ }^{9}$

Resist means to avoid or to hold back from doing something. The cookies looked good, but Betty was able to resist eating one before dinner.
tassel $^{18}$
A tassel is the top part of the corn plant; it releases pollen.

## versatile ${ }^{28}$



Versatile means having many uses.
A bandana is versatile because you can use it as a napkin, a scarf, or a hat.

## aligns ${ }^{45}$

Aligns means lines up with. When she parks her car on the street, she aligns the car with the curb.

## $\operatorname{arcs}^{41}$

Arcs are curved lines that have the shape of part of a circle. Rainbows are large arcs in the sky.

circular ${ }^{32}$
If something is circular, it has the shape of a circle. Most doughnuts are circular.

## contributed ${ }^{38}$

Contributed means took part in something in order to achieve a goal. I could not lift the heavy stone by myself, so my friend contributed to the effort.

## ditch ${ }^{33}$

A ditch is a long, narrow hole in the ground, often next to a road or field.


## legendary ${ }^{35}$

Legendary means coming from stories or legends. Robin Hood is a legendary hero.

## magician ${ }^{36}$

A magician is a person who uses spells, charms, or contact with spirits to control things or make impossible things happen.

## monument ${ }^{30}$

A monument is a structure that has become historically important. She visited an interesting monument in Greece; it was a temple built in ancient times.

## pondered ${ }^{42}$

Pondered means thought seriously about something. I wanted to win the chess match, so I pondered each move.

## possibilities ${ }^{43}$

Possibilities are things that could have happened or ways that something could be explained. I don't know what happened to my magazine, but I can think of a few possibilities: my sister took it, my dog ate it, or my mom threw it away.
rings ${ }^{40}$
Rings are circles that are open in the middle.

## Romans ${ }^{34}$

Romans are people who live in Rome, a city in Italy. The Romans had a great empire that lasted for hundreds of years.

## ruins ${ }^{29}$

Ruins are the parts that are left after something has been destroyed.

## shrine ${ }^{44}$

A shrine is a place of worship. On the religious holiday, they gathered at the shrine where they worshiped.

## site $^{31}$

A site is the place or location of something. The square of dirt in the backyard is the site where we will plant the garden.

## stages ${ }^{39}$

Stages are periods of time in a long process. The man's disease was in its early stages, but he would have it for the rest of his life.

## theorized ${ }^{37}$

Theorized means offered a possible explanation after careful observation and thought. After the scientist studied all of the information she had gathered, she theorized that the volcano would erupt soon.

## absolutely ${ }^{25}$

Absolutely means completely. She thought she had the right answer, but she double-checked to make absolutely sure.

## accomplished ${ }^{22}$

Accomplished means succeeded in doing something. After knitting a scarf, Sarah was proud of what she accomplished.

## barrier ${ }^{15}$

A barrier is an obstacle or something that stands in the way of something else.

## believers ${ }^{13}$

Believers are people who trust in an idea or who feel sure that something is true.

## consider ${ }^{9}$

Consider means to judge, believe, or think. Many people consider Abraham Lincoln to be the best U.S. president.

## convinced ${ }^{18}$

Convinced means completely certain of something.

## demonstrated ${ }^{24}$

Demonstrated means showed or proved by facts, actions, or feelings. Kate demonstrated her love for her cat by feeding and petting it every day.

## doubters ${ }^{12}$

Doubters are people who do not believe something is true or possible.

## endurance ${ }^{20}$

Endurance is the ability to do something for a long time. Most people do not have the endurance to run the 26 miles of a marathon race.

## feat ${ }^{23}$

A feat is an act that takes strength, skill, or courage to do. Lifting 500 pounds would be a feat for most people.

## individuals ${ }^{11}$

Individuals are human beings. There are five individuals on my basketball team.

## medical ${ }^{16}$

Medical means having to do with medicine or things that help people feel better when hurt or sick. Medical school is where future doctors learn ways to help people become or stay healthy.

## physically ${ }^{14}$

Physically means in a way that has to do with the body. The man was physically fit; he had a strong, healthy body.

## psychological ${ }^{19}$

Psychological means mental or having to do with the mind and feelings.
regimen ${ }^{17}$
A regimen is a planned system of diet, exercise, behavior, or study in order to reach a goal. He hoped that a regimen of eating vegetables and avoiding sweets would help him lose weight.
sub $^{21}$
Sub is a prefix that means under or less than. $A$ subcompact car is even smaller than a compact car.

## throughout ${ }^{10}$

Throughout means all through a certain time or in every part of something. I could hear the birds chirping throughout the morning; they did not stop until the afternoon.

## alter ${ }^{38}$

Alter means to adjust, vary, or change. She needed to alter the length of her pants so they would fit better.

## atmosphere ${ }^{28}$

The atmosphere is the air or gases that surround a planet, moon, or star. A rocket must pass through Earth's atmosphere before it reaches outer
 space.

## attention ${ }^{29}$

Attention is special care or interest that you give someone or something. The movie star received a lot of attention from her fans.

## catastrophic ${ }^{36}$

Catastrophic means causing great damage or loss. The earthquake was catastrophic; it destroyed many buildings and hurt or killed many people.

## characteristic ${ }^{27}$

A characteristic is a trait, part, or special feature that makes up what a person or thing is like. Julie's sense of humor is a characteristic that makes her a fun person to be around.

## collide ${ }^{34}$

Collide means to smash together with force. Drivers have to be careful so that their cars don't collide with each other on the road.


## course ${ }^{39}$

A course is the path that something moves along. The ship followed the course marked on the map so it would not get lost.

## crater ${ }^{31}$

A crater is a big, hollow area in rock that is usually bowl-shaped. There is a crater at the top of Mount St. Helens where the lava poured out
 when the volcano erupted.

## estimated ${ }^{35}$

Estimated means made a guess about number, size, or value after careful thinking. The children estimated how many jelly beans were in the jar.

## event ${ }^{33}$

An event is a thing that takes place. My birthday party is a fun event that happens once a year.

## impact $^{30}$

An impact is when one thing hits or crashes into another thing. The impact of the car crash caused the man a lot of pain.

## invaded ${ }^{26}$

Invaded means entered by force.

## leveled ${ }^{32}$

Leveled means flattened. When the tide came in, the ocean water leveled our sandcastle.

## rare ${ }^{37}$

Rare means not often seen, heard, or happening. Because February 29 comes only once every four years, it is a rare date.

## Canaries in Coal Mines

## colorless ${ }^{12}$

Colorless means without color. The liquid in his glass was colorless, so I thought it was water.

## depend ${ }^{22}$

Depend means to count on or rely on someone or something. I depend on my mother to help me with my homework.

## detectors ${ }^{14}$

Detectors are machines that identify the presence of substances such as smoke, metal, and carbon monoxide. The irritating sound from the smoke
 detectors alerted us to the small fire in the basement.

## effects ${ }^{15}$

Effects are things that happen because something else happened. Stomachaches and cavities are possible effects of eating too much candy.

## exhale ${ }^{17}$

Exhale means to breathe out or to send air out of the lungs. If you exhale when you're underwater, you will blow bubbles.

## figured ${ }^{19}$

Figured means found a solution or formed an idea or opinion about something by thinking about it. The girl figured her brother ate the candy bar because there was chocolate on his shirt.

## hasten ${ }^{21}$

Hasten means to move quickly. When the school bell rings, we hasten out the door to catch the bus.
inhale ${ }^{16}$
Inhale means to breathe in or to bring air into the lungs. Pablo stepped away from the fire so that he wouldn't inhale any of the smoke.

## metaphor ${ }^{25}$

A metaphor is a word or phrase used to describe or explain something by calling it something else. The metaphor "it's raining cats and dogs" says animals are raining from the sky, but it really means it's raining very hard.

## mine ${ }^{10}$

A mine is a place in the earth where people take minerals and other valuable things out of the ground. Miners working in an underground
 mine use different methods than miners working in a surface mine.

## miner ${ }^{9}$

A miner is a person who works in a mine, digging for valuable things like coal, silver, gold, or iron ore.


## odorless ${ }^{11}$

Odorless means without a smell.
A piece of glass is odorless; it has no smell.

## ought ${ }^{20}$

Ought means should or must do something. My parents say I ought to be home before dark so that they don't have to worry about me.

## present ${ }^{13}$

Present means existing somewhere or in a certain thing. The smell of smoke in the air was present for many days after the fire had been put out.

## revive ${ }^{24}$

Revive means to bring back to life or to energize. They tried to revive the struggling town by painting the offices on Main Street and planning a spring celebration for community members.

## sensitive ${ }^{18}$

Sensitive means able to notice or react to small things. I have very sensitive ears; I can hear soft noises that most people can't hear.

## sentinels ${ }^{23}$

Sentinels are animals or other organisms that help keep people safe by warning of dangers like toxic substances and diseases. Frogs with extra or missing legs were seen as sentinels, warning that water in the area had become too polluted.

## auroras ${ }^{39}$

Auroras are bright, sometimes colorful displays in the night sky that look like streaming bands of light.


## collide ${ }^{36}$

Collide means to smash together with force. Drivers have to be careful so that their cars don't collide with each other on the road.


## consequently ${ }^{38}$

Consequently means as a result of something. We had no umbrellas in the rain; consequently, we got wet.

## consists ${ }^{33}$

Consists means is made up of. Seawater consists of salt and water.

## emitted ${ }^{32}$

Emitted means released, given off, or sent out. Pollution emitted by older cars can be harmful to the environment.

## folklore ${ }^{29}$

Folklore is the stories, beliefs, and traditions of a group of people. Stories about King Arthur and Robin Hood are part of England's folklore.

## gases ${ }^{37}$

Gases are forms of matter that are not liquids or solids. Hydrogen and oxygen are gases.

## legend ${ }^{30}$

A legend is an old story that may or may not be true.

## mirror images ${ }^{40}$

Mirror images are likenesses in reverse or exact opposite copies.


## mysterious ${ }^{27}$

Mysterious means difficult to explain or understand, often because people have very little information about something. We didn't know why our dog kept getting sick; it was a mysterious illness.

## nitrogen ${ }^{35}$

Nitrogen is a colorless, odorless gas in the air.

## northernmost ${ }^{26}$

Northernmost means furthest to the north. Canada is the northernmost country in North America.

## oxygen ${ }^{34}$

Oxygen is a gas found in the air and in water. When you breathe, your body gets the oxygen it needs from the air.

## particles ${ }^{31}$

Particles are small pieces or amounts of things. We cannot always see the dust particles in the air because they are so tiny.

## phenomenon ${ }^{28}$

A phenomenon is a fact, condition, or happening that people can see or feel. A phenomenon is often unusual or surprising. The teacher had a list of many different phenomena students could study; the phenomenon I chose is rainbows, and the phenomenon my friend chose is comets.

## abandon ${ }^{20}$

Abandon means to leave someone or something without planning to return, or to completely give up. He had to abandon the house after the tornado hit it.

## approximately ${ }^{20}$

Approximately means nearly, close to, or about. A meter is approximately one yard long; the two lengths are close, but not exactly the same.

## capsized ${ }^{26}$

Capsized means tipped upside down or overturned. We couldn't get back in the capsized boat, so we had to swim to shore.


## confident ${ }^{12}$

Confident means sure or certain. Because she had never lost, Jill was confident she would win again.

## deck ${ }^{15}$

A deck is the upper level of a ship or boat.


## depart ${ }^{9}$

Depart means to leave or go away. The passengers depart from the station on a train.

## emerged ${ }^{25}$

Emerged means came out of something or somewhere. The newborn chick emerged from its egg.

## fractured ${ }^{24}$

Fractured means broken into pieces, cracked, or split. The glass jar fractured when the boy dropped it; it broke into several pieces.

## frigid ${ }^{22}$

Frigid means extremely cold. I had to wear a heavy coat to stay warm in the frigid weather.

## iceberg ${ }^{13}$

An iceberg is a very large piece of floating ice that has broken off from a much larger body of ice called a glacier.


## life jackets ${ }^{18}$

Life jackets are vests that people wear to float in water. The girls wore life jackets in the boat so that they would be safe if they fell into
 the water.

## lifeboats ${ }^{19}$

Lifeboats are small boats stored on a ship that people can use if the ship is sinking.


## maiden voyage ${ }^{10}$

A maiden voyage is a ship's first trip or journey.

## majority ${ }^{28}$

A majority is most of something. The majority of the class likes olives; the class has 25 students, and 20 of them like olives.

## of the day ${ }^{11}$

The phrase of the day means in the world at that time. In the 1960s, the Beatles were the most popular rock band of the day.

## resurfaced ${ }^{21}$

Resurfaced means came back up to the top of something. The dolphin dove under the ocean waves but then resurfaced and gave several calls.

## reunited ${ }^{27}$

Reunited means brought back together again.
When Dad came back from his trip, our family was reunited.

## smokestacks ${ }^{23}$

Smokestacks are large chimneys that let out the smoke that is made when fuel is burned. There are always clouds of smoke coming out of the smokestacks at the power plant.

## sway ${ }^{14}$

Sway means to move back and forth slowly. The tree's leaves sway in the wind.
tilt $^{17}$
Tilt means to lean or tip. If you tilt too far back on your chair, you will fall over.

## Titanic Survivor (continued)

## tragedy ${ }^{30}$

A tragedy is an event that causes great loss, harm, or sadness. The bombing of the village was a tragedy; many innocent people lost their lives.

## vessel ${ }^{16}$

A vessel is a ship or large boat that travels on water. A steamboat is a vessel, and so is a submarine.

## archeologists ${ }^{34}$

Archeologists are scientists who study ancient people and things.

## body ${ }^{41}$

A body is a collection of something. The artist's body of work includes hundreds of paintings and many sculptures.

## charges ${ }^{46}$

Charges are claims that a person has done wrong or committed a crime.

## city-states ${ }^{32}$

City-states are cities that operate as independent countries. Monaco and Singapore are both citystates; they are the size of cities, but they are independent countries.

## civilizations ${ }^{33}$

Civilizations are groups of people that have reached advanced stages or ways of living. An archeologist tries to learn about past civilizations by studying the art, tools, and writings they left behind.

```
code 44
```

A code is a set or collection of laws.

## culture ${ }^{48}$

Culture is the beliefs, skills, arts, tools, traditions, and ways of life of a group of people. American culture values the freedom to say and write what you think.

## debts ${ }^{45}$

Debts are money or things people owe to others.
Because several people lent me money for my trip, I came back with a number of debts to pay back.

## displayed $^{38}$

Displayed means put in a place for many people to see. The teacher's rules are displayed at the front of the classroom.

## exist ${ }^{31}$

Exist means to be real or alive. Flowers exist in nature.

## inscribed ${ }^{37}$

Inscribed means having carved or written words or designs. The inscribed gravestone shows the name of the person who is buried there.

## legal ${ }^{42}$

Legal means having to do with laws. I needed to get some legal advice, so I talked to a lawyer because she knew all about the law.

## posting ${ }^{40}$

A posting is information that has been put in a place where others can see it. When I lost my dog, I put a posting on every telephone pole on my street; the posting showed my phone number and a picture of my dog.

## principles ${ }^{43}$

Principles are rules, beliefs, or ideas that make you behave in a particular way.

## reign ${ }^{36}$

Reign is a time as leader. King Henry VIII's reign as King of England was from 1509 to 1547.

## ruins ${ }^{35}$

Ruins are the parts that are left after something has been destroyed.

## scholars ${ }^{39}$



Scholars are people who have studied and learned a lot about a certain subject and may be considered experts. If you have a question about World War II, ask Joe and Erin, because they are history scholars who have spent their lives studying the leaders and battles of that war.

## surgery ${ }^{47}$

Surgery is a medical operation in which doctors cut into the body to fix or remove a problem.

## $\operatorname{ash}^{15}$

Ash is the powder left over after something has been burned. The logs in the fireplace turned to ash as they were burned.


## connection ${ }^{11}$

A connection is a relationship between two or more things, ideas, or events. There is a connection between the amount of rainfall and the water level of the river.

## debris ${ }^{22}$

Debris is what is left after something has been destroyed or damaged. The people cleaned up the debris after the big storm.

## desert ${ }^{16}$

Desert means to leave or abandon someone or something without planning to return. People will desert the small town if they are unable to find work there.

## disastrous ${ }^{26}$

Disastrous means causing much damage or harm. The hurricane was disastrous; it caused a huge amount of damage.

## dormant ${ }^{10}$

Dormant means inactive or in a state of rest.
During cold weather, many trees go dormant; they lose their leaves and stop taking in water.

## downpour ${ }^{17}$

A downpour is a heavy, continuous fall of something. The sudden downpour of rain flooded the streets and sewers.

## entombed ${ }^{23}$

Entombed means served as a tomb or burial place for something. The ancient Egyptians entombed several dead pharaohs in pyramids.

## erupt ${ }^{9}$

Erupt means to explode or burst, shooting out fire, smoke, water, or another substance. When volcanoes erupt, they shoot out lava and ash; when geysers erupt, they shoot out water.

## eruptions ${ }^{12}$

Eruptions are explosions in which fire, smoke, or liquid shoots out of something. Eruptions from volcanoes shoot lava into the air;
 eruptions from geysers shoot water into the air.

## excavations ${ }^{24}$

Excavations are projects where workers dig to uncover and remove objects from underground. Mary removes several layers of rock and soil during her excavations of dinosaur bones.

## fortune ${ }^{20}$

Fortune is luck or the way things end up. It was good fortune that it didn't rain on the day of the outdoor party.

## lava ${ }^{21}$

Lava is hot, melted rock that comes out of a volcano.

## nature ${ }^{13}$

Nature is the basic characteristic of a person or thing. Josh had a friendly nature, so he smiled at everyone.

## preserved ${ }^{25}$

Preserved means kept from being harmed, damaged, or changed. The library had preserved the old book so well that it looked like new.

## pumice ${ }^{14}$

Pumice is light volcanic rock.


## stage ${ }^{19}$

A stage is a step in a process or project. Gathering the right materials is the first stage in building a house.

## structures ${ }^{18}$

Structures are things that have been made, like buildings, bridges, or houses. The play structures at the park include slides, swings, monkey bars, and ladders.

## achievements ${ }^{37}$

Achievements are things that get done because of skill, work, or courage. Winning an Olympic gold medal and writing an important novel are real achievements; not many people are able to do these things.

## chemistry ${ }^{39}$

Chemistry is the study of different substances and what happens when they are combined, heated, cooled, or changed in some other way.

## contributions ${ }^{43}$

Contributions are money, information, or other aid given toward a common purpose.

## element ${ }^{29}$

An element is a basic substance that cannot be broken down into different substances. There are more than 100 basic elements that make up all living and non-living things. Oxygen is an element; gold is too.

## field ${ }^{44}$

A field is an area of study or a certain kind of work. The field of biology includes the study of plants and animals.

## minimize ${ }^{42}$

Minimize means to make something smaller or less of a problem. The campers carried all of their trash out of the woods with them in order to minimize their effect on the environment.

## naturally ${ }^{33}$

Naturally means happening in nature and not made or changed by people. Rain, lightning, and ocean waves exist naturally, while plastic, lightbulbs, and swimming pools are made by people.

## partnership ${ }^{27}$

A partnership is two or more people cooperating or working with each other toward a common purpose.

## patent ${ }^{35}$

Patent means to gain the legal right to be the only person or company that can make or sell something. I plan to patent my new invention so that others cannot make money on it.

## physics ${ }^{38}$

Physics is the study of things in the physical world, such as heat, sound, light, and movement.

## polonium ${ }^{32}$

Polonium is a metallic element that gives off high amounts of radiation. Polonium is rare in nature, but small amounts can be found in rock containing uranium.

## precautions ${ }^{40}$

Precautions are actions taken ahead of time to guard against dangers or mistakes. Wearing a helmet and gloves are precautions you can take when riding a bike; if you fall off, the helmet will protect your head, and the gloves will protect your hands.

## radiation ${ }^{28}$

Radiation is energy that is sent out in rays or waves by certain substances. Heat, light, and $X$-rays are all kinds of radiation.

## radioactivity ${ }^{36}$

Radioactivity is the radiation, or energy, given off when an atom's nucleus breaks up.

## radium ${ }^{31}$

Radium is a metallic element that gives off high amounts of radiation. Because it is so radioactive, radium often gives off a faint blue glow and can be very dangerous to people.

## standard ${ }^{41}$

Standard means meeting accepted guidelines or having the approval of an authority. The standard student uniform at Saul's school is blue pants with a red shirt.

## substance ${ }^{34}$

A substance is a liquid, solid, or gas. Sap is a sticky substance that comes from trees.

## uranium ${ }^{30}$

Uranium is a metallic element that gives off high amounts of radiation.

## atmosphere ${ }^{20}$

The atmosphere is the air or gases that surround a planet, moon, or star. A rocket must pass through Earth's atmosphere before it reaches outer
 space.

## average ${ }^{19}$

An average amount is an amount that is found by adding a set of numbers and dividing by how many numbers are in the set. I am four feet tall, and my dad is six feet tall, so our average height is five feet, because $4+6=10$ and $10 \div 2=5$.

## civilizations ${ }^{17}$

Civilizations are groups of people that have reached advanced stages or ways of living. An archeologist tries to learn about past civilizations by studying the art, tools, and writings they left behind.

## gravity ${ }^{21}$

Gravity is a force that pulls objects toward each other. Gravity pulls objects to the ground, such as apples that fall from trees.

## natural ${ }^{14}$

Natural means not made by people; something that is natural is the way nature made it. Jessie doesn't need to curl her hair, because she has natural curls.

## orbits ${ }^{16}$

Orbits means moves in a circle or oval around something in space.

position ${ }^{12}$
A position is the way someone or something is placed compared to others. The tallest basketball player was in a good position to score a lot of points.

## produce ${ }^{9}$

Produce means to make something. An apple tree will produce apples.

## reflection ${ }^{10}$

A reflection is an image that bounces, or reflects, off of another surface. She saw her reflection in the mirror.


## relation ${ }^{13}$

A relation is the way in which one thing compares to another thing. Danny is tall for a 9-year-old, but he looks short in relation to most adults.

## revolution ${ }^{18}$

A revolution is one complete path all the way around something. It takes Earth about 365 days to make one revolution around the sun.

## satellite ${ }^{15}$

A satellite is a small moon or object that revolves around a planet.

## sliver ${ }^{11}$

A sliver is a small piece broken off or cut from a larger object. It was difficult to remove the sliver of glass from my foot.

## spacecraft ${ }^{22}$

A spacecraft is a vehicle that can travel in outer space.


## accurate ${ }^{42}$

Accurate means correct or without any errors. My watch is accurate-it says the time is 12:03, and the time really is 12:03.

## armed ${ }^{25}$

Armed means having a weapon or weapons. The armed guard carried a gun.

## cleared ${ }^{33}$

When something is cleared, it is examined and found to be safe. After the mechanics found no problem with the plane, we were cleared for takeoff.

## conflicts ${ }^{26}$

Conflicts are fights, battles, or wars between two or more people, groups, or countries. Many people die in conflicts all over the world every year.

## consequently ${ }^{32}$

Consequently means as a result, or because of something else. I was sick; consequently, I stayed home from school.

## consider ${ }^{23}$

Consider means to judge, believe, or think. Many
people consider Abraham Lincoln to be the best U.S. president.

## deminer ${ }^{34}$

A deminer finds, disarms, and removes landmines. The deminer worked carefully to turn the explosive he found in the field into a harmless piece of junk.

## diagnosis ${ }^{44}$

A diagnosis is an identification of a certain illness made after an examination or analysis of test results. After looking at the results of several tests, the doctors made a diagnosis and told the woman that she had cancer.

## disarm ${ }^{28}$

Disarm means to make something harmless or to take away its ability to do damage.

## explosives ${ }^{24}$

Explosives are things that are meant to blow up or burst with a lot of force. The workers used explosives to destroy the old building.


## handlers ${ }^{31}$

Handlers are people who train animals or are in charge of animals. Handlers work with police dogs to make sure the dogs know what to do at crime scenes.

## identify ${ }^{37}$

Identify means to recognize what something is. My aunt could identify the taste of cinnamon in the tea.

## light ${ }^{36}$

Light means weighs very little. The paper plate was so light that the wind blew it off the picnic table.

## metal detectors ${ }^{27}$

Metal detectors are tools that people use to find metal. We took our metal detectors to the beach to look for coins and jewelry that might be
 buried beneath the sand.

## organization ${ }^{30}$

An organization is a group of people working together for a purpose. Examples of organizations include clubs, businesses, and teams.

## process ${ }^{35}$

A process is a series of steps for doing something. Washing, drying, and folding clothes are all parts of Mom's laundry process.

## saliva ${ }^{39}$

Saliva is the watery liquid made by glands in the mouth.

## samples ${ }^{40}$

Samples are small parts that show the characteristics of the whole thing. Our class looked at samples of lake water under microscopes and saw some tiny organisms.

## time-consuming ${ }^{29}$

Time-consuming means takes a lot of time to do. Writing my report was very time-consuming; I spent all weekend working on it.

## Rats to the Rescue (continued)

## traditional ${ }^{43}$

Traditional means in the same way that something has been done for a long time. It is traditional to sing "Happy Birthday" at a birthday party.

## transmission ${ }^{4}$

Transmission is the act of spreading or passing from person to person. If you are sick, stay home from school to prevent the transmission of your illness to your classmates.

## tuberculosis ${ }^{38}$

Tuberculosis is a disease that spreads easily from person to person. It mainly affects the lungs and can cause death in some cases.
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