

# 174 Vocabulary Words You Need To Know for the ACT Science Section

## Scientific Inquiry

1	“Tested under same conditions”	(v.) experimented on in the same way, with one variable changed <i>The pea plants were tested under the same conditions as the sunflower plants so the scientist could determine which species required more water.</i>
2	“Varies with”	(v.) changes (especially increases or decreases) at the same time as <i>The Earth’s temperature varies with depth; as depth increases, temperature increases.</i>
3	Accumulate	(v.) to gather, collect, or form an increasing quantity <i>Rock candy crystals accumulated on the popsicle stick that was left in the sugar water solution.</i>
4	Accuracy	(n.) whether a given measurement agrees with the standard value <i>The student measured the specific heat of water with great accuracy; the measured values were only .001 joules away from the accepted value.</i>
5	Apparatus	(n.) instrument or tool (especially one used in a laboratory) <i>Glass shattered everywhere when the student dropped the filtration apparatus on the floor of the lab.</i>
6	Approximately	(adj.) nearly; not exactly <i>The data matched the accepted values approximately; the numbers were not exactly the same, but were close enough that it showed a pattern.</i>
7	Average	(n.) mean; typical amount <i>The student’s average grade was a B; she received mostly B’s, but a few A’s and C’s.</i>
8	Bunsen burner	(n.) a type of gas burner that produces a flame, commonly used in laboratories <i>Do not put your hand directly over the Bunsen burner. No really, don’t.</i>
9	Chronological	(adj.) in order of time <i>The fossils were arranged in chronological order, with the oldest ones at the far left end of the table.</i>
10	Classify	(v.) to organize by category <i>The teacher classified students in tables based on their grades; the students were not very happy about this.</i>
11	Clockwise/counterclockwise	(adj.) in the direction of the hands on a clock (clockwise) or in the opposite direction (counterclockwise, anticlockwise) <i>The Earth rotates counterclockwise on its axis.</i>
12	Conduct study/experiment	(v.) to create and test a hypothesis <i>The student claimed to be conducting a study testing whether eating a Snickers affected his performance on his physics quiz, but he really just wanted an excuse to eat a candy bar for breakfast.</i>
13	Consistent	(adj.) agreeing with, similar to (especially data) <i>The student’s data were consistent with her classmate’s, even though the numbers were not exactly the same.</i>
14	Constant	(adj.) the same, unchanged (especially a variable) <i>The amount of water was held constant; each plant was given one cup of water daily.</i>

15	Control	(n.) the untested group or individual in an experiment with all variables held constant except the independent (tested) variable <i>The student decided his experiment needed a control, so he also took a physics quiz without eating a Snickers beforehand.</i>
16	Data	(n.) information collected in an experiment; plural of datum <i>The student collected data on his sea urchin experiment in the form of size measurements.</i>
17	Demonstration	(n.) display or example <i>The teacher created a small explosion as a demonstration of the safety risks associated with the planned experiment.</i>
18	Dependent variable	(n.) measured variable in an experiment <i>In the student's experiment on whether eating a Snickers affected his performance on his physics quiz, his dependent variable was his quiz grade. It wasn't very good.</i>
19	Diameter	(n.) width of a circular object <i>Although the gallon container of milk was not perfectly round, the student was able to measure its diameter as exactly 15 centimeters.</i>
20	Efficiency	(n.) ratio of work accomplished to energy supplied to a system <i>The student's apparatus lacked efficiency; much of the energy was lost, so the solution was barely heated at all.</i>
21	Equally distributed	(adj.) each individual, group, or section receiving approximately equal amounts <i>The M&amp;M's were equally distributed among students; each one received approximately 11 pieces of candy.</i>
22	Experiment	(n.) test or trial that involves testing a hypothesis and ideally has one independent variable <i>The student's experiment demonstrated that eating Snickers does not help him perform better on physics quizzes.</i>
23	Factor	(n.) aspect contributing to the results of the experiment <i>The student failed to consider additional factors affecting his physics quiz scores, including the difference in difficulty between the two quizzes.</i>
24	Figure	(n.) graph, table, or chart that likely contains the answer to the question <i>The student missed the ACT question because she didn't realize almost all the answers are found in the figures.</i>
25	Generalization	(n.) assumption made based on previous information <i>Although the student had only collected data from 280 of the 300 plants, he was able to make a generalization about the last 20.</i>
26	Horizontal	(adj.) flat or level <i>The ACT instructor mocked the student who didn't know that the x-axis is the horizontal axis on a graph.</i>
27	Hypothesis	(n.) educated guess that will be tested by an experiment <i>The student's hypothesis stated that if he ate a Snickers before first period physics, his quiz score would improve. The data did not support his hypothesis.</i>
28	Incorporate	(v.) to become a part of <i>Crustaceans, such as horseshoe crabs, incorporate minerals into their exoskeletons to create hard, protective shells</i>
29	Increase/decrease	(v.) to become greater (increase); to become less (decrease) <i>In our Solar System, planets' temperature has an inverse relationship to their distance from the Sun; as distance to the Sun decreases, each planet's temperature increases.</i>

30	Independent variable	(adj.) the variable intentionally changed in an experiment, in order to be tested <i>The student's independent variable was whether he ate a Snickers before his physics test; one day he ate candy before his test and on another day he didn't eat the candy.</i>
31	Inference	(n.) logical conclusion based on previous information <i>The student collected data on plant growth from Week 1 and Week 3 in order to make an inference about what had happened in Week 2, even though she had forgotten to measure the plants that week.</i>
32	Inhibit	(v.) to restrain or prohibit <i>We hope that by slathering our hands with Purell, we can inhibit the growth of bacteria.</i>
33	Interpolate/extrapolate	(v.) to estimate based on gaps within (interpolate) or outside of (extrapolate) previously collected data <i>The student interpolated plant growth for Week 2 by looking at the data from the other weeks when she had been responsible enough to measure plant growth.</i>
34	Investigation	(n.) experiment or search <i>The student designed an investigation to test her hypothesis, which stated that Coca Cola and Mentos would create a bigger explosion than Diet Coke and Mentos would.</i>
35	Kilogram	(n.) standard unit of mass; kilo- = 1000, gram = unit of mass <i>The astronaut's mass remained 65 kilograms, even though her weight decreased considerably when she left Earth's atmosphere.</i>
36	Magnitude	(n.) size, amount <i>The student was not concerned with what color M&amp;M's he had received, only the magnitude of his pile of candy.</i>
37	Mass	(n.) amount of matter in an object <i>The mass of an object is always the same as long as the amount of matter in it doesn't change; it is only weight that varies with the amount of gravity.</i>
38	Matter	(n.) something that has matter and takes up space <i>The sun has considerably more matter than the Earth, which is why its mass and gravitational field are so much bigger.</i>
39	Methods	(n.) steps of a procedure of an experiment <i>The teacher had to remind the students several times to record their methods as they worked on the experiment, so they wouldn't forget any steps when they typed up their lab reports.</i>
40	Milliliter	(n.) unit of volume; milli- = one-thousandth, liter = unit of volume <i>The teacher always carried a Nalgene water bottle that could hold 33 ounces or 1000 milliliters of water.</i>
41	Minimum/maximum	(n.) smallest (minimum) or largest (maximum) amount <i>Based on the student's experimental data, the minimum amount of water a single pea plant requires to survive is 25 milliliters per day.</i>
42	Model	(n.) representation of a concept <i>The model of the atom hanging in the chemistry teacher's classroom was not entirely accurate, since the distance between the electrons and the nucleus could only be accurately represented in a classroom the size of a baseball stadium.</i>
43	Monitor	(v.) to observe, record, or detect <i>The student monitored plant growth each week; that is, unless she forgot.</i>
44	Nanometer	(n.) small unit of distance; nano- = one billionth, meter = unit of distance <i>Blue light has a wavelength of 475 nanometers.</i>

45	Percent by volume	(n.) concentration of a solution in terms of the partial and total volumes; equals (volume of part)/(volume of whole) x 100 <i>The Earth's atmosphere is mostly nitrogen; air is only 21% oxygen by volume.</i>
46	Percent yield	(n.) measure of the efficiency of a process or experiment; equals (actual yield)/(theoretical yield) x 100 <i>The student's experiment was a success, yielding 4.8 grams out of a theoretical yield of 5.0 grams, resulting in a 96% yield.</i>
47	Precision	(n.) exactness, whether measurements agree with each other <i>The teacher knew the scale was not accurate, unless he had gained 50 kgs overnight, but it was precise; each of the three measurements was within 0.1 kgs.</i>
48	Property	(n.) quality or characteristic <i>Metallic substances are identified by certain qualities, including shininess, high density, and electrical conductivity.</i>
49	Random	(adj.) without pattern <i>The data were complete random; there was no clear relationship between the color of the candle and how quickly it burned.</i>
50	Result	(n.) outcome of an experiment <i>The student was easily able to look at the results of his experiment and determine that eating candy for breakfast did not have a positive effect on his physics grades.</i>
51	Sample	(n.) specimen or quantity or an experiment <i>The sample of tap water contained several different species of microorganism.</i>
52	Scale	(n.) balance or other weighing instrument <i>The student used the scale to measure the appropriate quantity of sodium bicarbonate for her model volcano.</i>
53	Sensor	(n.) a device that is sensitive to an input <i>The student used an apparatus with a weight sensor on it to accurately measure the acceleration of the toy car.</i>
54	Study	(n.) experiment <i>The student was disappointed by the result of his Snickers study, so he decided to design a new one with a different brand of candy bar.</i>
55	Survey	(v.) to inspect or observe generally <i>The student surveyed the species of plants surrounding the school to determine whether the trash left by students had impacted the local ecosystem.</i>
56	Table, graph, diagram	(n.) visual representation of data <i>Nearly all of the answers in the ACT Science section are found in tables, graphs, and diagrams.</i>
57	Treatment	(n.) action in an experiment <i>In the medical experiment, the scientist gave the treatment group Tylenol to treat their headaches, whereas the control group received a sugar pill.</i>
58	Trial	(n.) test or round of an experiment <i>The responsible student did five identical trials of his experiment to make sure that his results were repeatable.</i>
59	Variable	(n.) something that changes <i>A variable in the experiment was what the student ate each morning, but constants included the subject area of the quiz (physics) and the student's amount of studying (none).</i>

60	Vertical	(adj.) upright or perpendicular to the horizontal <i>The student realized her error; she missed 15 ACT questions because she didn't know the y-axis was the vertical axis!</i>
61	Viewpoint	(n.) opinion <i>The student disagreed with his teacher's viewpoint on whether students should be allowed to leave campus during lunch.</i>
62	Volume	(n.) amount of space taken up by a substance <i>Although a kilogram of feathers has the same mass as a kilogram of bricks, the feathers will likely occupy a greater volume.</i>
63	Yield	(n.) quantity of product formed <i>The actual amount of rock candy yielded in the experiment was far less than the student had expected.</i>

## Life Science/Biology

1	ATP	(n.) adenosine triphosphate; the basic unit of energy used by cells <i>Aerobic respiration, which requires oxygen, creates the most ATP from each unit of glucose.</i>
2	Bacteria	(n.) single-celled organisms; plural of bacterium <i>The human body has more bacteria living inside it than its own cells.</i>
3	Bog	(n.) area of wet, spongy ground <i>The soil within the bog was composed mainly of rich, decayed plant matter.</i>
4	Cell	(n.) structural unit of all organisms <i>Everyone knows that the mitochondria are the powerhouses of the cell; this may be the only thing everyone knows about cells.</i>
5	Cellular Respiration	(n.) process within cells that involves the breakdown of sugar to create energy <i>All cells must undergo cellular respiration in order to produce ATP and survive.</i>
6	Competition	(n.) struggle among organisms to survive <i>Due to the small population of rabbits that year, there was fierce competition for survival among the foxes; only the best hunters survived.</i>
7	Cytoplasm	(n.) substance within the cell containing the organelles <i>The cytoplasm fills the space between the nucleus and the cell membrane.</i>
8	Dominant	(adj.) showing up or masking another trait <i>When a person inherits the trait for both brown hair and blonde hair, the brown hair will show up because it is the dominant trait.</i>
9	Dorsal	(adj.) relating to the back <i>An orca's dorsal fin will collapse if it is unhealthy or has been living in captivity.</i>
10	Ecology	(n.) branch of biology dealing with the relationship between organisms and their environment <i>The Ecology unit can be a lot of fun if it involves watching Planet Earth and very little memorizing vocabulary words.</i>
11	Emission	(n.) something that is emitted or discharged <i>A Hummer 3 produces far more carbon emissions than a tiny Prius.</i>
12	Environment	(n.) surrounding or external factors <i>When put in a salty environment, a freshwater fish will shrivel up and die.</i>

13	Evolution	(n.) change in the gene pool from generation to generation <i>Don't forget that an individual cannot undergo evolution, only an entire population!</i>
14	Feces	(n.) poop <i>The class guinea pig had odiferous feces.</i>
15	Fertilizer	(n.) a substance used to enrich soil <i>The teacher was thrilled when a student pointed out that by using guinea pig feces as fertilizer for the school garden, the class could improve the classroom odor while also improving the garden's yield.</i>
16	Food web	(n.) predator-prey and consumer-resource interactions in an ecosystem; all of the food chains in a community <i>Students often forget the part of the food web that involves decomposers returning nutrients back to the soil.</i>
17	Generation	(n.) offspring of a certain parent or mating pair <i>Mendel observed that the first offspring generation of pea plants all displayed the dominant trait.</i>
18	Genome	(n.) full set of genes of an organism <i>The human genome has a surprising number of similarities with the genome of broccoli.</i>
19	Genotype	(n.) genetic makeup for a single trait <i>Although the student had curly hair, his genotype included contained both the straight hair and curly hair traits; clearly the curly hair trait is dominant.</i>
20	Homeostasis	(n.) ability of an organism to maintain internal stability <i>The student chose to write his homeostasis paper on the human body's ability to regulate internal body temperature by sweating when the temperature is too high and by shivering when the temperature is too low.</i>
21	Larva	(n.) immature, wingless insect <i>The student was surprised to learn that Inuits consume maggots; they consume the botfly larvae found in caribou pelts for added nutrition.</i>
22	Life cycle	(n.) sequence of changes an organism undergoes <i>The student recalled the lesson he had learned in first grade about the life cycle of the monarch butterfly, which includes the time spent in a chrysalis.</i>
23	Nucleus (cell)	(n.) the center of a cell, which directs the cell's functions; plural is nuclei <i>Only eukaryotic cells have a true nucleus; simpler organisms merely have a nucleoid region.</i>
24	Nutrients	(n.) substances providing nourishment <i>Without the nutrients in the soil provided by decayed plants, the oak tree would never have survived.</i>
25	Organic	(adj.) living or previously living <i>The decaying plants provided important nutrients to the living organisms growing in the soil.</i>
26	Osmosis	(n.) passing of water through a membrane <i>Water tends to move, through osmosis, from an area of high salt concentration to an area of low salt concentration.</i>
27	Pedigree	(n.) line of ancestors of an individual <i>By analyzing the pea plant's pedigree, the student was able to determine the plant's genotype, even though the recessive trait was hidden.</i>

28	Photosynthesis	(n.) process of using light to create food <i>Plants, algae, and some bacteria use light energy, carbon dioxide, and water to create glucose and oxygen through photosynthesis.</i>
29	Pigmentation	(n.) coloration <i>An albino rat has no pigmentation in its skin, fur, and eyes, giving its eyes a red appearance.</i>
30	Pollination	(n.) transfer of pollen to form seeds <i>Certain plants are capable of self-pollination, while others require the assistance of other organisms such as bees.</i>
31	Population	(n.) all individuals of one species in an area <i>The white-tailed deer population in the Northeastern United States has grown out of control in the last fifty years.</i>
32	Rainforest	(n.) ecosystem characterized by high levels of precipitation, warm temperatures, and tall trees <i>The rainforest is so richly populated that scientists are discovering new species all the time.</i>
33	Recessive	(adj.) masked by another trait <i>Although the student is a carrier for sickle-cell disease, he does not get sick because the trait is recessive.</i>
34	Seed	(n.) fertilized egg of a plant <i>Certain seeds can still grow into a new organism even after passing through the digestive system of another organism. Consider that next time you swallow watermelon seeds!</i>
35	Semipermeable	(adj.) allowing only small molecules to pass through <i>The cell membrane is semipermeable, allowing small molecules to pass through easily but requiring more complex transport systems to allow larger proteins to pass.</i>
36	Sex-linked	(adj.) found on the X or Y chromosome <i>Color blindness is more common in males because it is a sex-linked recessive trait; females normally display the dominant healthy trait found on their other X chromosome.</i>
37	Taxonomy	(n.) science of classification <i>Much to the frustration of all English-speaking high school students, Carolus Linnaeus developed the current Latin system of naming and taxonomy of organisms that is still used today.</i>
38	Trait	(n.) characteristic <i>The student identified her dominant traits of dark eyes, dark hair, and the ability to taste bitter PTC paper.</i>
39	Understory	(n.) plants growing under the main canopy of a forest <i>The rainforest contains entirely independent communities at different levels; the species living in the canopy never interact with the species living in the understory.</i>
40	Ventral	(adj.) relating to the belly <i>The student identified his belly button as a ventral characteristic.</i>

41	Wetlands	(n.) land with wet and spongy soil <i>The New Jersey Meadowlands is a wetland ecosystem that is home to many organisms, as well as and the New York Jets and Giants.</i>
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## Physical Science/Chemistry

1	Atom	(n.) smallest component of matter <i>A single atom of gold still has the characteristics of a larger sample, although it may be difficult to get an accurate appraisal from a pawn shop.</i>
2	Chemical bond	(n.) sharing of electrons between atoms or ions <i>A covalent bond involves sharing a pair of electrons, whereas an ionic bond involves the transfer of electrons from one atom to another.</i>
3	Common molecules: O <sub>2</sub> , CO <sub>2</sub> , CH <sub>4</sub> , H <sub>2</sub> O	O <sub>2</sub> : oxygen, produced by photosynthesis, required for cellular respiration CO <sub>2</sub> : carbon dioxide, produced by cellular respiration, contributes to climate change CH <sub>4</sub> : methane, produced by livestock and industrial processes, contributes to climate change H <sub>2</sub> O: water
4	Compound	(n.) substance composed of 2 or more molecules <i>A popular chemistry limerick describes the importance of knowing the difference between the two compounds water and sulfuric acid: Little Johnny was a chemist Now he is no more For what he thought was H<sub>2</sub>O Was H<sub>2</sub>SO<sub>4</sub></i>
5	Concentration	(n.) the amount of solute dissolved in a solution <i>A Kool Aid solution with a very high concentration will have a bright red color and more flavor.</i>
6	Corrosion	(n.) breakdown of a solid, usually metal, through a chemical reaction <i>Rust is considered corrosion; the iron oxide created when iron and oxygen combine result in a weaker substance than the original iron.</i>
7	Element	(n.) a single substance that cannot be broken down by chemical processes <i>An element can be identified by a capital letter and sometimes a lowercase letter as well, such as Hg for mercury.</i>
8	Filtration	(n.) process of passing a mixture through a filter to purify one of its components <i>Filtration can be used to separate a mixture of salt, pepper and water; the salt will dissolve in the water, passing through the filter paper and leaving the pepper behind.</i>
9	Gas	(n.) state of matter that takes the shape and volume of its container <i>Gas can be considered a fluid because of the way it moves easily; most students think liquid is the only state of matter considered fluid.</i>
10	Hydrate	(n.) compound chemically combined with water <i>The student found chemistry calculations with hydrates exceedingly complicated.</i>
11	Liquid	(n.) state of matter that has a definite volume but takes the shape of its container <i>Most of the liquid water on Earth is found in oceans.</i>
12	Metallic	(adj.) having certain characteristics, such as shiny luster, electrical conductivity, high melting point, high density, and high boiling point. <i>Mercury is unique in that it is shiny, conductive, and possesses other characteristics of metals, but it is liquid at room temperature.</i>

13	Mixture	(n.) combination of two or more substances that are not chemically combined <i>A bag of M&amp;M's is a good example of a mixture because its components, the different color M&amp;M's, can be separated from each other without a chemical reaction.</i>
14	Nucleus (atom)	(n.) the center of an atom, containing nearly all of its mass <i>The nucleus of an atom contains protons and neutrons; the electrons float around the nucleus in a cloud.</i>
15	Particle	(n.) a single piece <i>The smallest particles most students learn about in high school are protons, neutrons, and electrons, which compose atoms.</i>
16	Porous	(adj.) full of holes; permeable <i>The porous rocks were used to decorate the garden because they allowed water to pass through them into the soil below.</i>
17	Product	(n.) result of a chemical reaction <i>One of the products of photosynthesis is glucose, a sugar.</i>
18	Reactant	(n.) reactant <i>One of the reactants of photosynthesis is carbon dioxide; without it, plants cannot produce sugar.</i>
19	Reactivity	(n.) likelihood of a substance reacting with another substance <i>The Hindenburg disaster taught us that hydrogen has a high reactivity and should not be used to fill aircraft.</i>
20	Solid	(n.) state of matter that has a definite shape and volume <i>When water is in its solid form it is called ice.</i>
21	Solubility	(n.) ability to dissolve in another substance <i>Kool Aid mix has a high solubility; a lot of it can easily be dissolved in water.</i>
22	Solution	(n.) homogeneous mixture of two substances <i>The ocean is a giant solution of several salts dissolved in water.</i>

## Physics

1	Accelerate	(v.) change velocity <i>Although acceleration is usually used in the English language to describe the process of speeding up, the physics definition includes speeding up, slowing down, and changing direction.</i>
2	Circuit	(n.) complete path of electric current <i>When the student accidentally broke the circuit, all of the classroom lights suddenly turned off.</i>
3	Collision	(n.) crash <i>Although the student claimed he was conducting an experiment on momentum, he really just enjoyed creating collisions between several objects in the lab.</i>

4	Compression	(n.) the act of being made smaller <i>The compression of light waves is due to the Doppler Effect; as the light waves get shorter, their color shifts towards the blue end of the spectrum.</i>
5	Electric field	(n.) area with a presence of an electrical charge <i>The student didn't understand how the electrical field related to the magnetic field, but she was able to memorize some formulas for her physics quiz.</i>
6	Electromagnetic spectrum	(n.) all the different types of radiation <i>The electromagnetic spectrum includes everything from the weaker radio waves to the stronger gamma rays.</i>
7	Filament	(n.) thin solid, often metal <i>If the filament in a light bulb is broken, the circuit is incomplete and the bulb will not work.</i>
8	Force	(n.) push or pull <i>The student exerted a force on the table, but was not strong enough to move it.</i>
9	Gravity	(n.) force that pulls all objects in the universe towards one another <i>Since the Earth is the largest object in our vicinity, gravity pulls us all towards it.</i>
10	Heat	(n.) transfer of thermal energy <i>The student ignored the teacher's instructions and put his hand directly on the hot plate; the heat immediately transferred from the hot plate into his hand, causing him to yelp in pain.</i>
11	Kinetic energy	(n.) the energy of motion <i>The amount of kinetic energy an object has is dependent on its mass and velocity.</i>
12	Momentum	(n.) force of a moving object <i>The student picked up so much momentum traveling down the hill on rollerblades that she had no idea what she would do when she got to the bottom.</i>
13	Motion	(n.) changing of position <i>Although the student was sitting still on the train, he was in motion in relation to the train station as the train zoomed past.</i>
14	Net force	(n.) sum of all forces acting on an object <i>Since both students pulling on either side of the doorknob applied roughly the same amount of force to the door, the net force was zero and the door didn't budge.</i>
15	Potential energy	(n.) stored energy <i>A boulder at the top of a hill has more potential energy than one at the bottom because it has the potential to roll down and cause a lot of damage to anyone standing at the bottom.</i>
16	Quarks	(n.) particles that compose protons and neutrons. <i>Nobody quite understands how quarks work, but they are even smaller components of protons and neutrons.</i>
17	Speed	(n.) change in position over time; $\text{speed} = \text{distance}/\text{time}$ <i>Speed doesn't depend on direction, although velocity does; your speed is the same whether you are moving forward or backwards.</i>
18	Spring	(n.) coil that returns to its original shape after being stretched or compressed <i>A Slinky is often a child's first experience with a spring and elastic potential energy.</i>
19	Work	(n.) force applied over a distance; $\text{work} = \text{force} \times \text{distance}$ <i>Although it feels like it, pushing on a heavy box that never actually moves does not count as doing work because your weak force never covers any distance.</i>

# Earth and Space Science

1	Atmosphere	(n.) gas surrounding a planet <i>Earth's atmosphere is composed mostly of nitrogen.</i>
2	AU	(n.) astronomical unit, used to measure distance in space; equal to the average distance between the Sun and the Earth <i>Since Earth's orbit around the Sun is not perfectly circular, sometimes the distance to the Sun is greater than one AU and sometimes it is less.</i>
3	Climate	(n.) long term patterns of temperature and moisture in an area <i>It is easy to confuse weather and climate; climate includes the weather patterns in an area for long periods of time like years.</i>
4	Comet	(n.) icy celestial body with a very elliptical orbit <i>Comets are often known as "dirty snowballs".</i>
5	Earthquake	(n.) vibrations in the Earth due to the movement of rocks and plates <i>Although many earthquakes occur due to the natural movement of Earth's tectonic plates, the recent growth of the fracking industry has caused countless earthquakes in regions that have never seen them before.</i>
6	Erosion	(n.) movement of soil particles <i>People sometimes plant trees in areas that are likely to suffer from erosion because the tree roots help hold onto the soil, preventing its erosion.</i>
7	Fossil	(n.) remains of a dead organism <i>Fossil fuels are so named because they are made of the remains of long dead and decomposing animals and plant matter.</i>
8	Galaxy	(n.) large system of stars held together by gravity <i>Our Solar System is a tiny part of the Milky Way Galaxy.</i>
9	Geochemical cycles	(n.) patterns of chemical interactions <i>The geochemical cycles that are often studied in high school are the water cycle, nitrogen cycle, and carbon cycle.</i>
10	Inclination with respect to the ecliptic plane	(n.) tilt of a planet's orbit <i>Some planets' orbits have a significant inclination with respect to the ecliptic plane, which means their orbit is extremely slanted compared to the orbits of surrounding planets.</i>
11	Lake	(n.) body of water surrounded by land <i>The Great Lakes are a significant source of freshwater on Earth.</i>
12	Mass movement	(n.) erosion of large quantities of soil, often caused by gravity or water <i>Mass movement, such as landslides, can be dangerous to people, who can be crushed as tons of soil slides rapidly down a hillside.</i>
13	Ocean	(n.) large body of salt water <i>Earth's oceans are all interconnected and cover <math>\frac{2}{3}</math> of the planet.</i>
14	Orbit	(n.) path an object takes as it revolves around another object <i>It takes one year for Earth to cover the entire distance of its orbit.</i>
15	Orbital period	(n.) time it takes for an object to complete its orbit <i>Earth's orbital period is just over 365 days, which is why we need a Leap Year approximately every four years.</i>

16	Plate tectonics	(n.) movement of large pieces of Earth's crust <i>Scientists use plate tectonics to explain why Earth's continents were once combined in one huge continent called Pangaea, but have since separated into the seven continents we recognize today.</i>
17	Poles	(n.) far ends, often along a rotational axis <i>Earth's North Pole is important not only because it houses Santa Claus, but also because it serves as a magnetic landmark for navigation.</i>
18	Protostar	(n.) ball of gas that is early precursor to a star <i>The Sun was once a protostar, until it formed our Sun around 5 billion years ago.</i>
19	Reflectance	(n.) degree to which sunlight is reflected by Earth's surface <i>Snowy areas have high reflectance, which is why it is necessary to wear sunglasses even while skiing.</i>
20	River	(n.) body of water that moves downhill <i>The Mississippi River carries water and soil down to the Gulf of Mexico.</i>
21	Soil	(n.) substance composed of rock particles, decayed organic matter, air, and water <i>Compost heaps are very smelly, but improve soil quality by adding more organic matter.</i>
22	Solar system	(n.) planets and other bodies orbiting around a star <i>Our Solar System includes the Sun, eight planets, and the Asteroid Belt, but some die-hard Pluto fanatics claim there is a ninth planet.</i>
23	Star	(n.) rotating ball of fiery gas fueled by nuclear fusion in its core <i>Earth's closest star is the Sun; the next closest star is four light years away!</i>
24	Telescope	(n.) device used to view objects that are very far away <i>The Hubble Telescope has been used to make incredible observations of space and take many high-quality photos that can be downloaded for free from NASA's website.</i>
25	Universe	(n.) all objects in space, including all planets and stars <i>The universe contains many galaxies; our Milky Way is not terribly special.</i>
26	Volcano	(n.) hole in Earth's crust that allows molten rock and gases to escape <i>The inhabitants of Pompeii were caught off guard when Mt. Vesuvius erupted suddenly, covering them all with lethal molten rock.</i>
27	Water table	(n.) level underneath Earth's surface that is saturated with water <i>If your well doesn't reach the water table, you will have to dig a deeper well!</i>
28	Weather	(n.) temperature, moisture, wind, and air pressure conditions of an area <i>They say if you don't like the weather in Pittsburgh, wait an hour for it to change!</i>
29	Weathering	(n.) breakdown of rock <i>Weathering and erosion tend to go together; for example, a river rushing past a rock outcrop will eventually weather the rock down and broken down rock particles are eroded down the river.</i>