

1. Rate	How rapidly something changes (or moves)	19. Osmosis	Movement of water molecules across a cell membrane from an area of high water concentration to an area of low water concentration.
2. What are the units of a car's speed in London?	km/hr	20. Crystal	Solids that are made of molecules and feature a regular, repeating geometric shape
3. What are the units of a motorcycle's speed in L.A.?	mi/hr	21. Meiosis	The first step in the process of dividing cells for sexual reproduction
4. Food Chain	The predator and prey relationships within a particular geographic area	22. Mitosis	The process that cells go through when dividing
5. Antiseptic	Chemicals that kill harmful bacteria on the surface of the skin.	23. Concentration	In chemistry, the amount of a chemical compared to the amount of water in a container
6. Disinfectant	Anything that kills microorganisms	24. Equilibrium	A state which occurs when all the forces acting upon an object are in balance (or cancel each other out)
7. Electromagnetic Spectrum	Radio waves, microwaves, infrared waves, visible light, ultraviolet light, and gamma rays.	25. Velocity	The Speed and Direction of an object
8. ROYGBIV	An acronym for the colors found in any rainbow: red, orange, yellow, green, blue, indigo, and violet.	26. Electrical Current	The amount of charge through a particular point per second
9. Weathering	The destruction of solid material due to wind, water, or chemical action in the environment.	27. Resistance	The measure of a material's ability to oppose the flow of electrical current
10. Meteors (Meteorites)	Any space object that enters the Earth's atmosphere.	28. Conduction	The measure of a material's ability to carry an electrical current
11. Mantle	The relatively malleable layer of Earth beneath the crust (and surrounding the lava at the molten core)	29. Capacitance	The ability of an object to hold an electric charge
12. Seismic Energy	The energy released during an earthquake	30. Mitochondria	The power plants of every cell (which produce the chemical ATP to power all cell functions)
13. Global Warming	The theory that the Earth is getting warmer.	31. Cilia	Tiny, hairlike projections from cells that serve a variety of purposes.
14. Elliptical Orbit	An orbit in the shape of an oval instead of a circle	32. Fermentation	A breakdown of an energy-rich compound that occurs in conditions that lack oxygen.
15. Eclipse	When one stellar object blocks the light coming from another.	33. Gene	A small piece of DNA that is the blueprint for a specific protein.
16. Comet	A mass of ice, dust, and rocky particles that orbits the sun	34. Groundwater	Water that is found under the surface of the Earth
17. Asteroid	Small rocks in space that become meteors when they enter the Earth's atmosphere	35. Fusion	A chemical process that occurs when smaller atoms – such as Hydrogen – are combined to make larger atoms such as Helium ... resulting in a release of energy.
18. Radioactive Decay	The process in which unstable elements release particles and energy to become more stable.	36. Fission	A chemical process that occurs when large, unstable atoms are broken into smaller, more stable atoms – resulting in a release of energy.

37. Fahrenheit	Unit of Temperature used in English countries
38. Celsius	Unit of Temperature used in most of the world
39. Kelvin	Unit of Temperature used by scientists when in very cold environments
40. Freezing point of water in Fahrenheit?	32 degrees
41. Freezing point of water in Celsius?	0 degrees
42. Freezing point of water in Kelvin?	273 degrees
43. Boiling point of water in Fahrenheit?	212 degrees
44. Boiling point of water in Celsius?	100 degrees
45. Boiling point of water in Kelvin?	373 degrees
46. Recessive Genes	Genes whose features are less likely to be expressed (only with no controlling gene present)
47. Dominant Genes	Genes whose features are more likely to be expressed
48. Allele	An alternative form of a gene that is located in a specific place on a specific chromosome.
49. Subatomic Particles	The smaller parts of every atom
50. Protons	The positively charged subatomic particles
51. Neutrons	The subatomic particles with no charge
52. Electrons	The negatively charged subatomic particles
53. Δ	The Greek letter "Delta" – meaning "change"

54. Mechanical Energy	The energy associated with both the position & movement of an object – specifically the sum of its potential & kinetic energies.
55. Kinetic Energy	Energy of motion – in direct proportion with either the mass or velocity of an object
56. Potential Energy	Stored energy which is available to do work (based on either height or a spring)
57. Sedimentary Rocks	Rocks produced by small particles, deposited by wind or water, and then fused by pressure and heat into solid rock.
58. Metamorphic Rocks	Rocks produced by applying pressure and heat to an existing rock in order to change its form without completely melting it.
59. Igneous Rocks	When pre-existing rocks are heated until they completely melt and then are allowed to cool.
60. Exothermic	Any chemical reaction that releases heat
61. Endothermic	Any chemical reaction that absorbs heat
62. How many layers of the atmosphere are there here on Earth?	5
63. What is the lowest layer of Earth's atmosphere?	Troposphere
64. What happens in the Troposphere?	All of our weather
65. What is the 2nd layer of Earth's atmosphere?	Stratosphere
66. What happens in the Stratosphere?	This is where jets/planes usually fly the most (most stable of the 5 layers of atmosphere here on Earth)
67. What is the 3rd/middle layer of Earth's atmosphere?	Mesosphere
68. What happens in the Mesosphere?	This is where meteors and rocks burn up

69. What is the 4th layer of Earth's atmosphere?	Thermosphere
70. What happens in the Thermosphere?	This is where auroras occur and also where the Space Shuttle flies
71. What is the 5th/outermost layer of Earth's atmosphere?	Exosphere
72. What happens in the Exosphere?	This is where Earth's atmosphere shields us most from outer space.
73. Phenotype	An observable trait of an individual that is determined by his or her genetics
74. Fossil Fuel	Any source of a once-living organism that is now used for energy
75. What mnemonic device helps you recall the order from the sun of our planets?	My Very Educated Mother Just Showed Us Now (it used to be -- > My Very Educated Mother Just Showed Us Nine Planets)
76. Earth is known as the "____ rock from the sun"	Third
77. Cytoplasm	The jelly-like material that fills the cell
78. Erosion	The destruction of solid material due to either natural or human-made processes over time.
79. Magnetic Field	A field of energy generated around a magnet or wire carrying electricity
80. Precipitate	A solid that forms from inside a liquid mixture
81. Transcription	The production of RNA using DNA as a template (in Biology)
82. Enzymes	Molecules (usually proteins) that increase the speed of chemical reactions in our bodies.
83. Substrate	The natural environment in which an organism lives
84. What is the "substrate" of coral?	The bottom of shallow seas
85. Flagellum	Tail-like projections that single-cell organisms (like sperm) use to propel themselves through liquids

86. Bedform	The ripples formed from streams and rivers flowing over mud.
87. Spectrometer	A device used to determine the chemical makeup of an object by examining the frequency of light that is reflected from it.
88. Serum	A plasma substance containing all blood proteins not used in clotting. It is neither a blood cell, nor a clotting factor.
89. Reduction	The addition of electrons from one element to another during a chemical reaction.
90. Oxidation	The removal of electrons from one element to another during a chemical reaction.
91. In the process of iron rusting, what element undergoes the reduction?	Oxygen --> because electrons are added to oxygen from the iron
92. In the process of iron rusting, what element undergoes the oxidation?	Iron --> because electrons are stripped from the iron by the oxygen
93. Greenhouse Gases	Gases in the atmosphere that keep light energy near the surface – thereby keeping the planet warmer.
94. What is the most common greenhouse gas?	Water vapor
95. What is the 2nd most common greenhouse gas?	Carbon Dioxide
96. Chromosomes	Large DNA molecules that contain the encoded genetic information of a cell
97. Chlorophyll	A green protein within plants that converts light into useable energy
98. Buoyancy	A property of a liquid that supports a submerged object with a force equal to the weight of the liquid that is displaced by the object
99. Permeable	Allows the movement of certain substances across a barrier.
100. Oscillation	When an object moves back and forth in a regular pattern

101. Diffusion	Movement of substance from areas with high concentrations to areas with low concentrations
102. Corrosion	The breakdown of material due to chemical reactions
103. Bedrock	A layer of rock that lies beneath soil, dirt, or gravel
104. Altitude	Distance above sea level
105. pH	a scale from 0–14 measuring how acidic or basic a substance is.
106. The pH scale is a _____ scale	logarithmic
107. Which pH's are acidic?	When pH < 7
108. Which pH's are for pure water?	When pH = 7
109. Which pH's are basic?	When pH > 7
110. What substance would have a pH near 7?	Water
111. What substance would have a pH near 12?	Ammonia (a very "basic" compound)
112. What substance would have a pH near 0?	any corrosive acid
113. Climate	The average weather of a region over a long period of time
114. Boiling Point	The temperature at which a liquid turns to vapor
115. Freezing/Melting Point	The temperature at which a substance changes from either a liquid to a solid or vice versa
116. What does RNA stand for?	Ribonucleic Acid
117. What does RNA do?	It's the molecule that transfers the genetic instructions found in DNA to the cells so that they can make proteins in bodies.
118. What does DNA stand for?	Deoxyribonucleic Acid
119. What does DNA do?	It's the molecule that contains the genetic instructions for any living organism – to determine what the organism looks like and how it functions.

120. Light Year	The distance light travels in one year.
121. How many million miles is the Sun from Earth?	93
122. How long does it take a ray of sunlight (in minutes) to reach the Earth?	8
123. The closest star to our sun, Proxima Centauri, is how many light years from our solar system?	4.22
124. Saturation	The point at which no more of a substance can be dissolved into a solution
125. Density	Mass of a substance contained within a particular volume (mass/Volume)
126. Catalyst	A substance that helps increase the rate of a chemical reaction
127. Atomic Mass	The total mass of all the protons, neutrons and electrons of a single atom
128. Molecular Mass	The total mass of all the atoms in one molecule of a substance
129. Acceleration	A positive or negative change in direction or speed
130. Metamorphosis	Changing from one form into another
131. Carbohydrates	A class of molecules composed of sugars
132. Amino Acid	The building blocks of proteins
133. How many Amino Acids does the human body use to create all of its proteins?	20
134. Subduction Zones	Regions where 2 geologic plates in the Earth overlap
135. Absorbance	The amount of light energy transferred to an object
136. Isotope	A variation of an element in which there are a different number of neutrons in the nucleus

137. Friction	A force that resists the movement of 2 objects moving/rubbing against each other
138. Photon	A particle of electromagnetic (or light) energy
139. Pressure	A force or weight divided by the area it covers
140. Force	Anything that causes a mass to accelerate
141. Independent Variable	The variable in an experiment that is manipulated by the investigator
142. Dependent Variable	The variable in an experiment that is measured by the investigator
143. Genotype	An individual's combination of genes
144. Which is the largest between solute, solvent and solution?	Solution
145. Solute	The substance dissolved into a liquid
146. Solvent	The liquid that the dissolving material is put into
147. Solution	The combination of Solute and Solvent
148. Electrophoresis	A process in Biology in which an electric charge is applied to move the particles within a solution
149. Polymers	Large molecules that consist of collections of smaller units
150. Chromatography	The process of separating a mixture of substances into its individual component substances
151. Aerosol	Any liquid or substance that has been broken into microscopic pieces and that floats in air
152. Viscosity	The resistance to flow – a measure of how "thick" any liquid is
153. Temperate Regions	Regions on Earth with mild weather conditions
154. Arctic/Polar Regions	Regions on Earth with colder conditions
155. Tropical Regions	Regions on Earth with warmer and more humid conditions
156. Molecular Polarity	The separation of electric charge within a molecule

157. Vapor Pressure	The measure of how easily a substance mixes with air or another gas.
158. Once more of a substance has gotten into the air, what will happen to its vapor pressure?	It increases
159. Does plastic have a high or low vapor pressure?	High
160. Reactants	The chemicals mixed together in a chemical reaction
161. Products	The chemicals that come out of a chemical reaction
162. Tectonic Plates	Pieces of Earth's crust that slide above and below each other.
163. Elements	Substances on Earth that cannot be broken down further by chemical means
164. As of 2015, how many elements have been identified on the Periodic Table (in Chemistry)?	118
165. Ecosystem	The physical and biological parts of an environment
166. Crust	The thin outer layer of Earth
167. Translation (in Biology)	The process by which RNA is read by ribosomes to produce proteins
168. Fats/Lipids	Long molecules made up primarily of carbon and hydrogen
169. What are fats & lipids used for in our bodies?	To store energy
170. Voltage	The force between two points that drives the movement of electricity
171. Wavelength	The distance between any 2 crests of a wave
172. Frequency	The number of waves per second
173. As wavelength increases, frequency _____	Decreases

174. As wavelength decreases, frequency -----	Increases
175. Circadian Rhythm	The 24 hour cycle that most plants and animals on Earth live under
176. Parasite	Any creature that lives on/off the "host" creature to gain its energy, food or support
177. Biomass	The total amount of plant & animal matter within a particular geographic area