|  |  |  |  |
| --- | --- | --- | --- |
| Weight  | Measure of the pull of gravity on an object’s mass. | Current Electricity | A flow of electric charge. |
| Transverse Wave | Particles move at right angles to the direction of the wave’s energy. | Wavelength | Distance from one identical point on a wave to another, i.e., crest-to-crest or trough-to-trough. |
| Ultrasonic | Sounds above the range of human hearing. Above 20,000 Hz. | Velocity  | Speed with direction. |
| Terminal Velocity | When a falling object stops accelerating. | Thermal Energy  | How much kinetic energy is in the object. Energy a substance or system has related to its temperature, i.e., energy of vibrating molecules. |
| Speed  | Distance traveled in a certain amount of time. | Temperature  | A degree of hotness or coldness; measurement of how fast the atoms and molecules of a substance are moving. |
| Series Circuit  | Current only has one path in which to travel. | Simple Machines | A tool that only requires one force to be applied for it to do work. |
| Resistance | Opposition to a force. | Parallel Circuit | Two or more paths for the electrons to travel, i.e. If one light bulb goes out the others stay lit; if one circuit is broken the others can still function. |
| Reflection  | Bouncing back of a wave, i.e. echo or reflection in a mirror. | Refraction | Bending of a light wave as it travels through a barrier. The wave will change speed and direction. |
| Potential Energy  | Energy of position. | Power  | Amount of work done (or amount of energy consumed) in a given period of time.  |
| newton  | Unit used to measure force. | Noble Gas  | He (helium) and down on the periodic table. Outer electron shell is full; usually does not combine with other elements.  |
| Neutron | Non-charged particle in the nucleus of an atom. To find the number of neutrons: subtract the atomic number from the atomic mass number. | Molecule | Combination of two or more atoms of same or different elements.  |
| Matter | Anything that has mass and volume, i.e., solid, liquid and gas. | Medium | The matter that waves travel through. |
| Magnetism | Forces of attraction and repulsion. | Mass | How many particles are in a piece of matter. |
| Magnetic Poles | North and South. Area on a magnet where the force of attraction is the strongest. | Isotope | Atoms of an element that have the same number of protons but different numbers of neutrons, and therefore a different atomic mass. |
| Longitudinal Wave | Medium moves in the same direction as the energy, i.e., back and forth. | Magnetic Field | Area or region of attraction around a magnet. The magnetic field is strongest at the poles. |
| Kilometer | 1000 meters. Unit used to measure distance. | Kinetic Energy | Energy of motion. |
| Interference | Two types: 1) Constructive: two waves come in contact; the result is a wave with a larger amplitude. 2) Destructive: two waves come in contact; the result is a wave with a smaller amplitude. | Friction | A force that opposes motion. "Rubbing." |
| Inference | A logical conclusion based on evidence and reasoning.  | Infrared Light | Part of the electromagnetic spectrum. Lower energy and longer wavelengths than visible light.  |
| Gravity | The force of attraction between two objects. | Heat | A form of energy. Makes molecules move faster. |
| Force | A push or pull. A force can start, stop or change direction of motion. | Frequency | Number of waves that pass a point in one second; unit of measurement is Hertz (Hz). |
| Equilibrium | Forces are balanced. Net Force equals Zero. | Element | Pure chemical substance that cannot be broken down or changed into another chemical substance.  |
| Diffraction | Bending of a wave around a barrier or through an opening.  | Electron | Negatively charged particle. Found outside of the nucleus in an atom. |
| Atomic Number | Number of protons in each atom of a chemical element.  | Convection | Transfer of heat in liquids and gases by means of currents. |
| Atom | Smallest unit still showing properties of the element. | Atomic Mass Number  | Weight of the atom. Numbers of protons and neutrons. |
| Amplitude | The height of a wave. Measured from trough to crest.  | Acceleration | A change in velocity over time. |
| Conduction | Transfer of heat by collision of molecules. | Distance | A scalar quantity that refers to "how much ground an object has covered" during its motion. |
| Displacement | Vector quantity that refers to "how far out of place an object is;" it is the object's overall change in position. | Scalar | Quantities that are fully described by a magnitude (or numerical value) alone. |
| Vector | Quantities that are fully described by both a magnitude and a direction. | Momentum | A property of mass that is moving, equal to the product of an object's mass and velocity. |
| Static Friction | Friction that cannot be overcome by applying a force on an object. | Rolling Friction | The frictional force which opposes or resists the motion of an object which is rolling across a surface. |
| Sliding Friction | The friction between two bodies that are in sliding contact. | Fluid Friction | Resistance offered by a fluid against its flow. |
| Static Electricity  | The net buildup of electric charges on an object. | Air Resistance | Friction acting on an object moving through the air. |
| Inertia | The tendency of an object to resist any change in its motion. If motionless, it tends to remain at rest; if moving, it tends to keep moving at the same speed and in the same direction. | Balanced Forces | Forces that are equal in size and opposite in direction. |
| Unbalanced Force | When two forces not equal in size act upon an object. | Homogeneous | Of the same kind; alike. |
| Heterogeneous | Different in content. | Mixture | A combination of two or more substances that can be separated by physical means. |
| Compound | Substance made of the combined atoms of two or more elements. | Solution | Two or more different substances combined to form a homogeneous mixture. |
| Colloid | A heterogeneous mixture containing tiny particles that never settle out; for example, milk and gelatin. | Suspension | A heterogeneous mixture that separates into its parts over time. |
| Vaporization | Phase change that occurs when a liquid changes to a gas. | Condensation | Phase change that occurs when a vapor or gas turns into a liquid. |
| Evaporation | The gradual change of a substance from a liquid to a gas at temperatures below the boiling point. | Solvent | The substance that dissolves a solute. |
| Solute | The substance being dissolved in a solvent. | Solubility Curve | A graph showing the relationship between solubility and temperature. |
| Saturated | A solution that has dissolved all the solute it can normally hold at a specific temperature. | Unsaturated | A solution that is capable of dissolving more solute at a specific temperature. |
| Supersaturated | A solution containing more than the maximum amount of solute that can normally be dissolved in a solvent at a given temperature. | Dilute | To make the strength of a mixture weaker or less concentrated by adding more solvent. |
| Concentrate | To make a solution stronger by adding more of the solute. | Metals | Elements that are good conductors of heat and electricity; solids at room temperature (except mercury). |
| Nonmetals | Elements that that do not conduct heat or electricity well. Usually gases or brittle solids at room temperature. | Metalloids | Elements having properties of both metals and nonmetals. |
| Luster | A physical property test that identifies how a mineral reflects light. | Charge | A property that causes the particles of an atom (such as protons and electrons) to attract or repel each other. |
| Proton | A particle in the nucleus of an atom that has a positive electric charge. | Ion | An atom that is electrically charged as a result of having more or less electrons than protons  |
| Lewis-dot Diagram | A diagram that uses dots to show an element's valence electrons. | Circuit | A closed path through which electrons flow. |
| DC Circuit | Electrical current that flows in only one direction through a wire. | Valence Electron | An electron in the outer shell of an atom that can combine with other atoms to form molecules. |
| Alpha Particle | Ionizing radiation consisting of units with two protons and two electrons. | Beta Particle | An electron given off by an unstable nucleus. |
| Gamma Rays | High frequency electromagnetic waves that travel at the speed of light, have no mass or charge, and are the most penetrating form of radiation. | Nuclear Fission | Process in which an atom's nucleus is split into two nuclei with smaller masses. |
| Nuclear Fusion | Process in which two atomic nuclei with low masses are fused into a single nucleus of larger mass. | Half Life | The amount of time required for one-half of the nuclides in a sample of radioactive isotope to decay. |
| Radioactive Decay | The spontaneous disintegration of a radioactive substance along with the emission of ionizing radiation. | Rarefaction | In compressional waves, the less dense area of the wave. |
| Compression | In compressional waves, the dense area of the wave. | Period | 1) A horizontal row in the periodic table.2) Length of time for one cycle of traveling waves.  |