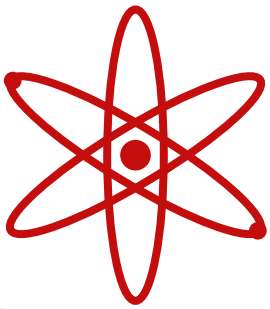
JR-SCIENTISTS
VOCABULARY

ACIDS and BASES: Almost all liquids are either acids or bases to some degree. Whether a substance is an acid or base depends on the type of atoms (called ions) in it. If it has a lot of hydrogen ions, then it is an acid. If it has a lot of hydroxide ions, then it is a base. Pure water is neither an acid nor a base. Scientists measure the strength of an acid or base using a scale called pH.

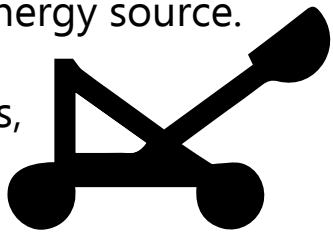
ATOMS: Atoms are the smallest units of an identifiable pure substance (a substance known as an element). Everything is made up of atoms.



CAPILLARY ACTION: The process when liquids, like water, move up through a solid, like a hollow tube or a sponge or paper material.

CARBON DIOXIDE (CO2): A colorless gas made up of one carbon and two oxygen atoms. Plants take in carbon dioxide from the air and make things to grow a plant with the sun as an energy source.

CATAPULT: An ancient weapon used to throw objects, such as large stones or arrows, at an enemy.



CHEMICAL REACTION: A process in which one or more substances are converted to one or more different substances. Chemical reactions take place all around us. Cooking food is an example of a chemical reaction.

COHESION: The "stickiness" of like molecules to one another. Cohesion is what makes water stay in drops.

DENSITY: The compactness of stuff in space or the amount of material that is in a set size.

JR-SCIENTISTS

VOCABULARY

DISSOLVE: To cause a solid or gas to pass into a liquid and form a solution. For example, sugar dissolves in water to form a sugar solution.

FATS: Nutrients in food that are made up of special carbon and hydrogen and oxygen atoms. The body uses fats to build nerve tissue, hormones and also as fuel.

FLOAT: To stay up or at the surface of the water, another liquid, or air.

GAS: One of the three states of matter, along with solid and liquid. Gas has no fixed shape.

GRAVITY: A force that pulls everything toward the center of the earth.

KINETIC ENERGY: The energy an object has due to its motion. The faster or heavier a moving object is, the more kinetic energy it has.

LEVER: A long, sturdy body that rests on a support called a fulcrum. A lever can be used to move things.

LIQUIDS: One of the three states of matter, along with solid and gas. A liquid will take the shape of any container.

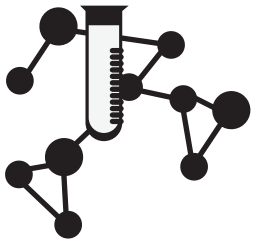
MASS: The amount of matter in the substance. The amount of mass in a set area is called density.

MATTER: Any object that takes up space and has mass.

JR-SCIENTISTS
VOCABULARY

MINERALS: Solid substances that occur naturally. They do not come from animals, plants, or other living organisms.

MIXTURE: A material made up of two or more substances to form a new material.



MOLECULES: The smallest unit of a substance called a compound that has all the properties of that substance.

MOTION: The act of changing location from one place to another. The opposite of motion is rest.

NON-NEWTONIAN FLUID: A fluid in which the viscosity changes with the applied shear force.

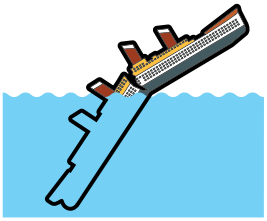
POLYMER: Something made of very big molecules of the same type. Many plastics are polymers.

POTENTIAL ENERGY: The stored energy an object has because of its position or state.

PROTEIN: A molecule in food. Protein is a nutrient found in food (such as meat, milk, eggs, and beans) that is made up of many smaller molecules called amino acids.

REST: Scientists use the word "rest" to mean when something is not moving. The opposite of "rest" is motion.

SINK: To go beneath the surface of a liquid. When something sinks it is because it cannot float on the liquid.



JR-SCIENTISTS
VOCABULARY

SOLIDS: One of the three states of matter, the others are liquid and gas. Solids have a definite size and shape that can be changed by a force.

SOLUTION: A specific type of mixture where one substance is dissolved into another. In a solution, the ingredients mix.

STRATIFICATION: The arrangement of something into different groups.

SURFACE TENSION: A force present within the surface layer of a liquid that causes the layer to behave as an elastic sheet. Surface tension occurs because the molecules are attracted to each other.

THERMODYNAMICS: The scientific study of work, heat, energy, and the related properties of chemical and mechanical systems.

THERMOMETER: A thermometer is a device designed to measure temperature.

VARIABLES: Any factor, trait, or condition that can exist in differing amounts or types. An experiment usually has three kinds of variables: independent, dependent, and controlled.

VISCOSITY: How thick a liquid is. A liquid with high viscosity - that is thick, like molasses- will flow very slowly. A liquid with low viscosity, or that's thin, like water, will flow quickly.