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## Glossary

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**Aerodynamic:** Able to move through the air with as little air resistance as possible.

**Air resistance:** The force of friction on a vehicle as it moves through the air.

**Analyze:** To study something by breaking it down into simpler parts.

**Axle:** A bar or shaft on which a wheel turns.

**Blueprint:** A detailed plan or drawing that shows how something is designed.

**Classify:** To group things together because they share one or more properties.

**Conclusion:** A decision that is based on observations or on a study of data.

**Constant:** A condition that is not changed in a scientific experiment.

**Controlled experiment:** A scientific investigation in which one variable is changed and all the others are kept the same.

**Cost-effective:** Able to produce the best results for the least money.

**Data:** Information, such as that gathered during an experiment.

**Drag:** Force that opposes the forward movement of a vehicle.

**Dynamics:** The part of physics that deals with how things move and the forces that change their motion.

**Energy:** The ability to do work or to make something happen.

**Evidence:** Something that offers proof.

**Experiment:** A procedure that is carried out to investigate a scientific question.

**Force:** A push or pull.

**Friction:** Force that resists movement between two objects that are touching.

**Gravity:** A force of attraction between any two masses. The strength of this force is dependent on the mass of each object and their distance from one other.

**Hypothesis:** A prediction about how something works or how two variables are related.

**Kinetic energy:** Energy associated with motion.

**Laws of Motion:** Three laws, formulated by Sir Isaac Newton, that describe how objects move in relation to the forces acting on them.

**Mass:** The amount of matter an object has.

**Mean:** The mathematical average of a number of measurements.

**Median:** The middle value of a number of measurements.

**Mode:** The value occurring most frequently in a series of measurements.

**Opinion:** An expression of how one thinks or feels about something. An opinion is based on personal views, not necessarily on facts.

**Pattern:** A repeating arrangement of shapes, colors, numbers, or other things.

**Potential energy:** Stored energy that can be released to become other forms of energy.

**Prototype:** An original model or design.

**Recursive testing:** Retesting and revising a product; part of the technological design process.

**Speed:** A measure of how fast something is moving.

**Technological design:** The process of designing and building products and systems to meet human needs.

**Template:** A set pattern, mold, or form.

**Tension:** The force exerted by a stretched object, such as a spring.

**Three-view drawing:** A diagram, showing top, side, and front views.

**Variable:** An element in an experiment that can be changed.

**Weight:** A measurement of how heavy something is.