

## Student Friendly Glossary

**Bolded** words are the key terms that you will learn throughout the Mars Rover Celebration unit. Words that are not bolded are supplemental words to help you better understand the content.

**accurate:** measured or calculated precisely and correctly

**aerodynamic:** having qualities that make something move easily through the air using less fuel

**apply:** to use what you have learned for some purpose

**astrology:** the belief that the positions and movements of the stars, moon and planets might influence events and the lives and behaviors of people

astronomical unit: the average distance from the Earth to the Sun

**astronomical: (meaning 1)** something related to outer space  
**(meaning 2)** a very large number or amount

**astronomy:** the scientific study of stars, planets and other matter outside the Earth's atmosphere

atmosphere: the mixture of gases that surround a planet

**attribute:** a quality or feature, usually one that is considered good or desirable

avionics: the electronics that navigate and control a rover, airplane or spacecraft

brainstorm: a group approach to problem solving that starts by generating new and different ideas

bus: the body of the rover or spacecraft

**calculate:** to solve a problem or figure out an answer using numbers

**characteristic:** a quality or feature typical of something or someone that is easy to recognize

**chassis:** the frame of a vehicle to which the other parts are attached (wheels, engine, body)

**climate:** the typical weather conditions in a particular area

**collaborate:** working together in a group to solve a problem

**composition:** the chemical make-up of an object or surface

**concise:** shorter than the original, with no unnecessary words

**conditions:** the weather at a particular time or place and how this weather affects everything and everyone

**consider:** to think about something carefully

**control:** a test group in which the variable is not altered. The control helps scientists see what difference, if any, that a change in the variable makes

**core sample:** a round piece from the inside part of something (a planet, a tree, a glacier, etc...) taken out using a hollow drill

**crater:** a round hole in the ground made by something that has fallen on it or by an explosion

**diagram:** a simple drawing or plan that shows exactly where something is, what something looks like or how something works

**eccentricity:** a way to measure how round or oval a planet's orbit is

**ellipse:** the oval-like shape of an orbit

**engineering:** the work involved in designing and building things such as roads, bridges, and machines

**evaluate:** to judge or decide how good, useful, or successful something is

falsify: showing that a theory or model is wrong by making measurements

**flow:** the steady movement of water, electricity, traffic, people, ideas, etc. from one place to another

focus: the location of a star within a planet's orbit

**generate:** to produce, create, or come up with something

**geology:** the study of the rocks and soil that make up the Earth and other planets, and how rocks and soil change over time

**hypothesis:** a good guess about something that has not yet been proven to be true

**impact (meaning 1):** when one object strikes another  
**(meaning 2):** the effect or impression something makes

**inference:** something you think is true based on information that you have and what you already know

**ingenuity:** cleverness or talent for inventing useful things and thinking of useful new ideas

light minute: a way of measuring very large distances, much bigger than miles or kilometers

**main idea:** the overall idea of a paragraph or text; a brief statement of what the text says about the topic

**manager:** a person whose job is to direct or control a business and to deal with the people, equipment, money and problems of that business

**measurement:** a number that represents the length, weight, temperature, speed, etc. of something

**mission:** the clearly stated main purpose or goal for a trip or a project

mock-up: a non-working scale or full sized model of something

model: a larger or smaller scaled copy of an object

**orbit:** the oval path that an object takes in space around a star or planet. Moons have orbits around a planet; planets have orbits around a star.

**paraphrase:** to state in a shorter, clearer, or different way what someone else has said or written

**plagiarism:** copying an idea or the written work of someone else without saying where the information came from

**planet:** an object that orbits a star that is round in shape owing to its own gravity

**plausible:** something that makes sense and may be true

**power system:** the system that produces and distributes electricity on a vehicle, building, etc...

**prediction:** a good guess about something that may happen in the future

**problematic:** difficult to deal with, fix, or solve

**process:** a series of actions or steps that are taken in order to do something

**professional:** well-trained, well-made or well-done

**prop:** a small object such as a book or a telephone used in a play or skit

**prototype:** the first model made of something used to test the design or to show what the actual item will look like

**refine:** to improve something over time by making small changes to it

**rehearse:** to practice something (like a play or a concert) for a public performance

**represent: (meaning 1):** to stand for or be something else  
**(meaning 2):** to show something

**research:** to study something carefully, to get all the necessary facts and information

**revolution:** a circular movement around something

**rotation:** when something moves in a circular movement around a central point

rover: a robotic Mars surface lander that can move on the surface

**scale:** an exact copy of an object that is either larger or smaller than the original

**select:** to choose carefully

**solar system:** a solar system is made up of a star and the planets that go around it. A solar system also includes things such as moons, comets, asteroids and space rocks.

**solution:** a way of dealing with a problem or a difficult situation

**standardized:** when all of a particular type of item are made to be the same as each other

**summarize:** to make or write a short statement that gives only the main information and not the details

**surface:** the outside part or top layer of something

suspension: parts attached to the wheels of a vehicle that make it ride smoother on rough roads and surfaces

systems engineering: the type of engineering used when designing very complex things

technology: the methods and machines used to make things and solve problems

telemetry: the system used to transmit data back to the earth

temperature: a measure of how hot or cold something is.

**terrain:** an area of land with a particular geology (rocky terrain, desert terrain)

texture: how smooth or rough something is.

thermal control system: the system that keeps your rover from getting too hot or too cold

**topic:** a subject that people talk or write about

**valid:** something that is reasonable or makes sense

**validate:** to prove that something is true or correct by testing it several times using scientific experiments

**variable:** something that changes or can change

**Venn Diagram:** a picture of two or more overlapping ovals (circles) that shows how things that are being compared are similar and different