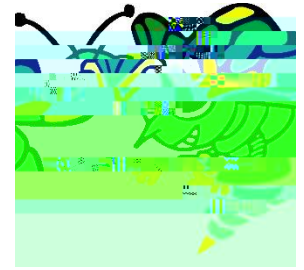


DISCOVER



8TH GRADE SCIENCE

Discover · Explore · Practice · Create

Target #	Target	Can I?'s
ESS.1	I CAN describe the motions and the phenomena associated with this motion.	<ul style="list-style-type: none"> demonstrate how Earth moves in space (rotation, revolution, orbit, and axis) explain what causes the seasons on Earth explain what causes the phases of the moon differentiate between solar and lunar eclipses
ESS.2	I CAN develop a model of the solar system that illustrates the role of gravity.	<ul style="list-style-type: none"> describe the factors that keep the Earth and the moon in orbit identify what determines the strength of the force of gravity between two objects (mass, distance, and inertia)
ESS.3	I CAN create a scale model of an object(s) in the solar system.	<ul style="list-style-type: none"> describe the objects that make up the solar system compare and contrast objects in our solar system analyze data from scientific instruments to determine similarities and differences of objects in the solar system
ESS.4	I CAN analyze rock and fossil data to construct a geologic history.	<ul style="list-style-type: none"> analyze rock formations and fossil evidence to determine the geologic history
ESS.6	I CAN construct a scientific explanation about changes on Earth.	<ul style="list-style-type: none"> explain the ways in which heat is transferred identify what causes convection currents describe how rocks change through the rock cycle
ESS.5	I CAN analyze rock and fossil data to provide evidence for the theory of plate tectonics.	<ul style="list-style-type: none"> provide evidence that continents move describe the process of subduction provide evidence for seafloor spreading describe plate boundaries explain the theory of plate tectonics
PS.3	I CAN develop a model to describe the atomic composition of simple molecules and extended structures.	<ul style="list-style-type: none"> determine the charge of subatomic particles determine the location of the subatomic particles determine the number of elements in a compound differentiate between elements, compounds, and mixtures
PS.4	I CAN interpret data to determine if a chemical reaction has occurred in a substance.	<ul style="list-style-type: none"> explain how thermal energy is lost or gained as matter changes states identify the chemical and physical properties of pure substances

PS.1	I CAN develop a model that predicts and describes changes in a pure substance when thermal energy is added or removed.	differentiate between solids, liquids, and gases differentiate between chemical and physical properties provide evidence that a chemical reaction has taken place (smoke, color change, light, or a new substance has formed)
PS.5	I CAN develop a model to explain the law of conservation of mass.	determine the number of atoms in a compound determine the reactants and products of a chemical reaction determine the number of atoms in a chemical reaction before and after a reaction has taken place
PS.2	I CAN construct a device that either releases or absorbs thermal energy by chemical processes.	differentiate between endothermic and exothermic reactions develop a plan to create a device that releases or absorbs thermal energy by chemical properties

8th GRADE SCIENCE SKILLS

8SS1	I CAN apply the steps of the scientific method.	<i>write a procedure that can be followed by another person</i> <i>write a hypothesis.</i> <i>identify variables.</i> <i>isolate and control variables in an experiment.</i> <i>display data in a graph</i> <i>write a conclusion that summarizes the results of an experiment</i>
8SS2		<i>identify the safety rules of the lab</i> <i>identify and use the tools of science lab appropriately</i>
8SS3	I CAN be safe in the science lab.	<i>be a careful observer using all senses.</i> <i>differentiate between qualitative and quantitative observations.</i> <i>distinguish between observations, inferences, and predictions.</i> <i>measure using accuracy and precision.</i> <i>based on logical observations and inferences, make logical predictions.</i>