

Subject Science	Grade First	Standard 3. Physical Science	Objective 2. Analyze objects and record their properties.
Content Big Ideas			
(A) Objects can be described in terms of materials they are made from (clay, cloth, paper, etc.) and their physical properties (color, size, shape, weight, texture, flexibility, etc.).	(PoS) People can often learn about things around them just by observing those things carefully, but sometimes they can learn more by doing something to the things and noting what happens (raise questions about the world around them, be willing to seek answers to some of those questions by making careful observations and trying things out). (CoS) When doing science activities, it is often helpful to work with a team and to share findings with others. In this sharing, describing things as accurately as possible is important in science because it enables people to compare their observations with those of others (draw pictures that correctly portray at least some features of the thing being described, describe and compare things in terms of number, shape, texture, size, weight, color, and motion). (NoS) When people give different descriptions of the same thing, it is usually a good idea to make some fresh observations instead of just arguing about who is right.		(T) People use appropriate tools and models to investigate the world. (A) People working alone or in groups often invent new ways to solve problems and get work done. (S) Tools and ways of doing things that people have invented affect all aspects of life.
<b>Indicators: Measureable Outcomes framed by Standard 1 Big Ideas</b>			
<b>Indicator 1. Sort, classify, and chart objects by observable properties, e.g., size, shape, color, and texture.</b>			
<b>Indicator 2. Predict measurable properties such as weight, temperature, and whether objects sink or float; test and record data.</b>			
<b>Indicator 3. Predict, identify, and describe changes in matter when heated, cooled, or mixed with water.</b>			
<b>Science language students should be able to use correctly: sort, predict, classify, solid, liquid, dissolve, matter, property, mix.</b>			
<b>Guidance for Combining Content and Process</b>			
<b>Guidance for Combining Science, Technology, and Society</b>			
<b>Suggested Strategies</b>			
Using various objects and simple tools such as a magnifier ruler, scale, and thermometer, students work in groups to classify and arrange objects by at least 2 observable attributes (e.g., size, shape, color, texture) or properties so that similarities and differences become apparent. Chart and discuss findings. (L) (M) (PoS) (CoS)	Students determine whether objects sink or float by placing various objects in water (e.g., rocks, pumice stone, pumpkins, clay boats). (PoS)	Students develop their own defining characteristics of solids, liquids, and gases by manipulating a variety of examples. For instance, students are given five different liquids (e.g., water, oil, dish soap, milk, soda) to construct their characteristics. Students can construct the characteristics of a gas by using balloons, straws, simple gliding machines, and fans. (PoS)	(T) Students can use age-appropriate tools to analyze properties of objects. (A) Students can explain that objects have different uses because of their properties. (A) Students can understand that certain objects are recyclable because of their properties. (A) Students can influence the amount of items recycled. (S) Students can have a direct impact on the environment.
Students observe, test, and describe how water and other materials change from liquid to solid and back again (e.g., observe that liquids left in an open container decrease in amount over time, but the amount in a closed container does not). (PoS) (CoS)			
<b>Physical Science</b> (A) Atomic/Molecular (F) Force and Motion	<b>Curriculum Connections</b> (M) Mathematics (L) Language Arts	<b>Processes, Communication, and Nature of Science</b> (PoS) Processes of science (CoS) Communication of science (NoS) Nature of science	<b>Applications: Science, Technology, and Society</b> (T) Tools of science (A) Applications of science (S) Implications of science for people