

**Science Indicators**  
**Third Marking Period**  
**2009-10**

Grade	Indicator	Standard Indicator
Kindergarten	K.3.2	Investigate that things move in different ways, such as fast, slow, etc.
Kindergarten	K.6.1	Describe an object by saying how it is similar to or different from another object.
Grade 1	1.2.1	Use whole numbers, up to 100, in counting, identifying, measuring, and describing objects and experiences.
Grade 1	1.2.2	Use sums and differences of single-digit numbers in investigations and judge the reasonableness of the answers.
Grade 1	1.2.3	Explain to other students how to go about solving numerical problems.
Grade 1	1.3.1	Recognize and explain that water can be a liquid or a solid and can go back and forth from one form to the other. Investigate by observing that if water is turned into ice and then the ice is allowed to melt, the amount of water is the same as it was before freezing.
Grade 1	1.3.2	Investigate by observing and then describe that water left in an open container disappears, but water in a closed container does not disappear.
Grade 1	1.3.3	Investigate by observing and also measuring that the sun warms the land, air, and water.
Grade 1	1.3.5	Recognize that and demonstrate how things near the Earth fall to the ground unless something holds them up.
Grade 2	2.1.1	Manipulate an object to gain additional information about it.
Grade 2	2.1.2c	Use tools such as rulers to gain more information about objects.
Grade 2	2.1.2d	Use tools such as balances to gain more information about objects.
Grade 2	2.1.3	Describe both in writing and verbally objects accurately as possible and compare observations with those of other people.
Grade 2	2.1.6	Use tools to investigate, observe, measure, design, and build things.
Grade 2	2.1.7	Recognize and describe ways that some materials such as recycled paper, cans, and plastic jugs can be used over again.
Grade 2	2.2.2a	Make quantitative estimates of familiar lengths and check them by measurements.
Grade 2	2.2.2b	Make quantitative estimates of familiar weights and check them by measurements.
Grade 2	2.2.4	Assemble, describe, take apart, and or reassemble constructions using such things as erector sets or building blocks.
Grade 2	2.2.5	Draw pictures and write brief descriptions of key features of an object.
Grade 2	2.4.5	Recognize and explain that materials in nature such as grass, twigs, sticks, and leaves can be recycled sometimes in different forms such as bird's nests.
Grade 2	2.5.1	Recognize and explain that in measuring there is a need to use numbers between whole numbers such as 2 1/2 cm.
Grade 2	2.6.1	Investigate that most objects are made of parts.
Grade 2	2.6.2	Observe and explain that models may not be the same size, may be missing some details, or may not be able to do all the same things as real things.
Grade 3	3.1.1	Recognize and explain that when a scientific investigation is repeated, a similar result is expected.
Grade 3	3.1.5	Demonstrate the ability to work cooperatively while respecting the ideas of others and communicating ones own conclusions about findings.
Grade 3	3.1.8	Describe how discarded products contribute to the problem of waste disposal and that recycling can help solve this problem.
Grade 3	3.2.2	Measure and mix dry and liquid materials in prescribed amounts, following reasonable safety precautions.
Grade 3	3.2.5	Construct something used for performing a task out of paper, cardboard, wood, plastic, metal or existing objects.

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Grade 3	3.2.6	Make sketches and write descriptions to aid in explaining procedures or ideas.
Grade 3	3.3.8	Investigate and describe how moving air and water can be used to run machines like windmills and waterwheels.
Grade 3	3.5.1	Select and use appropriate measuring units such as centimeters (cm) and meters (m), grams (g), and kilograms (kg), and degrees Celsius (°C).
Grade 3	3.5.2	Observe that and describe how some measurements are likely to be slightly different, even if what is being measured stays the same.
Grade 3	3.5.5	Explain that one way to make sense of something is to think of how it relates to something more familiar.
Grade 3	3.6.1	Investigate how and describe that when parts are put together, they can do things that they could not do by themselves.
Grade 3	3.6.2	Investigate how and describe that something may not work if some of its parts are missing.
Grade 4	4.4.1	Investigate, such as by using microscopes, to see that living things are made mostly of cells.
Grade 4	4.4.2	Investigate, observe, and describe that insects and various other organisms depend on dead plant and animal material for food.
Grade 4	4.4.3	Observe and describe that organisms interact with one another in various ways, such as providing food, pollination and seed dispersal.
Grade 4	4.4.4	Observe and describe that some source of energy is needed for all organisms to stay alive and grow.
Grade 4	4.4.5	Observe and explain that most plants produce far more seeds than those that actually grow into new plants.
Grade 4	4.4.6	Explain how in all environments, organisms are growing, dying, and decaying, and new organisms are being produced by the old ones.
Grade 4	4.4.9	Explain that food provides energy and materials for growth and repair of body parts. Recognize that vitamins and minerals, present in small amounts in foods, are essential to keep everything working well. Further understand that as people grow up, the amounts and kinds of food and exercise needed by the body may change.
Grade 4	4.4.10	Explain that if germs are able to get inside the body, they may keep it from working properly. Understand that for defense against germs, the human body has tears, saliva, skin, some blood cells, and stomach secretions. Also note that a healthy body can fight most germs that invade it. Recognize, however, that there are some germs that interfere with the body's defenses.
Grade 4	4.4.11	Explain that there are some diseases that human beings can only catch once. Explain that there are many diseases that can be prevented by vaccinations, so that people do not catch them even once.
Grade 5	5.2.5	Use technology, such as calculators or spreadsheets, in determining area and volume from linear dimensions. Find area, volume, mass, time, and cost, and find the difference between two quantities of anything.
Grade 5	5.3.4	Investigate that when liquid water disappears it turns into a gas (vapor) mixed into the air and can reappear as a liquid when cooled or as a solid if cooled below the freezing point of water.
Grade 5	5.3.5	Observe and explain that clouds and fog are made of tiny droplets of water.
Grade 5	5.3.6	Demonstrate that things on or near the Earth are pulled toward it by the Earth's gravity.

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Grade 5	5.3.8	Investigate, observe, and describe that heating and cooling cause changes in the properties of materials, such as water turning into steam by boiling and water turning into ice by freezing. Notice that many kinds of changes occur faster at higher temperatures.
Grade 5	5.3.9	Investigate, observe, and describe that when warmer things are put with cooler ones, the warm ones lose heat and the cool ones gain it until they are all at the same temperature. Demonstrate that a warmer object can warm a cooler one by contact or at a distance.
Grade 5	5.3.10	Investigate that some materials conduct heat much better than others, and poor conductors can reduce heat loss.
Grade 5	5.3.12	Explain that objects move at different rates, with some moving too quickly for people to see them.
Grade 5	5.3.13	Demonstrate that the Earth's gravity pulls any object toward it without touching it.
Grade 5	5.4.4	Explain that in any particular environment, some kinds of plants and animals survive well, some do not survive as well, and some cannot survive at all.
Grade 5	5.4.7	Explain that living things, such as plants and animals, differ in their characteristics, and that sometimes these differences can give members of these groups (plants and animals) an advantage in surviving and reproducing.
Grade 5	5.5.1	Make precise and varied measurements and specify the appropriate units.
Grade 5	5.5.3	Classify objects in terms of simple figures and solids.
Grade 5	5.5.4	Compare shapes in terms of concepts, such as parallel and perpendicular, congruence and symmetry.
Grade 5	5.5.5	Demonstrate that areas of irregular shapes can be found by dividing them into squares and triangles.
Grade 5	5.5.6	Describe and use drawings to show shapes and compare locations of things very different in size.