2011 -12 Pacing Guide

2nd Grade Science 1st Term	
Term	**Standard**
1	**GPS.02.SC.C.PS.S2P1** - Students will investigate the properties of matter and changes that occur in objects.
1	**GPS.02.SC.C.PS.S2P1.a** - Identify the three common states of matter as solid, liquid, or gas.
1	**GPS.02.SC.C.PS.S2P1.b** - Investigate changes in objects by tearing, dissolving, melting, squeezing, etc.
1	**GPS.02.SC.C.ES.S2E2** - Students will investigate the position of sun and moon to show patterns throughout the year.
1	**GPS.02.SC.C.ES.S2E2.a** - Investigate the position of the sun in relation to a fixed object on earth at various times of the day.
1	**GPS.02.SC.C.ES.S2E2.b** - Determine how the shadows change through the day by making a shadow stick or using a sundial.
1	**GPS.02.SC.C.ES.S2E2.c** - Relate the length of the day and night to the change in seasons (for example: Days are longer than the night in the summer.)
1	**GPS.02.SC.C.ES.S2E3** - Students will observe and record changes in their surroundings and infer the causes of the changes.
1	**GPS.02.SC.C.ES.S2E3.a** - Recognize effects that occur in a specific area caused by weather, plants, animals, and/or people.
1	**GPS.02.SC.CS.LS.S2L1** - Students will investigate the life cycles of different living organisms. Teacher note: Instruct students not to touch wild plants and animals when they observe them. Always wash hands after handling any plants or animals. Caution students not to eat wild plants they find.
1	**GPS.02.SC.CS.LS.S2L1.b** - Relate seasonal changes to observations of how a tree changes throughout a school year.
1	**GPS.02.SC.CS.HM.S2CS1** - Students will be aware of the importance of curiosity, honesty, openness, and skepticism in science and will exhibit these traits in their own efforts to understand how the world works.
1	**GPS.02.SC.CS.HM.S2CS1.a** - Raise questions about the world around them and be willing to seek answers to some of the questions by making careful observations and measurements and trying to figure things out.
1	**GPS.02.SC.CS.HM.S2CS2** - Students will have the computation and estimation skills necessary for analyzing data and following scientific explanations.
1	**GPS.02.SC.CS.HM.S2CS2.a** - Use whole numbers in ordering, counting, identifying, measuring, and describing things and experiences.
1	**GPS.02.SC.CS.HM.S2CS2.b** - Readily give the sums and differences of single-digit numbers in ordinary, practical contexts and judge the reasonableness of the answer.
1	**GPS.02.SC.CS.HM.S2CS2.c** - Give rough estimates of numerical answers to problems before doing them formally.
1	**GPS.02.SC.CS.HM.S2CS2.d** - Make quantitative estimates of familiar lengths, weights, and time intervals, and check them by measuring.
1	**GPS.02.SC.CS.HM.S2CS3** - Students will use tools and instruments for observing, measuring, and manipulating objects in scientific activities.
1	**GPS.02.SC.CS.HM.S2CS3.a** - Use ordinary hand tools and instruments to construct, measure, and look at objects.
1	**GPS.02.SC.CS.HM.S2CS3.b** - Assemble, describe, take apart, and reassemble constructions using interlocking blocks, erector sets and other things.

1	**GPS.02.SC.CS.HM.S2CS3.c** - Make something that can actually be used to perform a task, using paper, cardboard, wood, plastic, metal, or existing objects.
1	**GPS.02.SC.CS.HM.S2CS4** - Students will use the ideas of system, model, change, and scale in exploring scientific and technological matters.
1	**GPS.02.SC.CS.HM.S2CS4.a** - Identify the parts of things, such as toys or tools, and identify what things can do when put together that they could not do otherwise.
1	**GPS.02.SC.CS.HM.S2CS4.b** - Use a model□such as a toy or a picture□to describe a feature of the primary thing.
/ 2nd Term	
Term	**Standard**
2	**GPS.02.SC.C.PS.S2P2** - Students will identify sources of energy and how the energy is used.
2	**GPS.02.SC.C.PS.S2P2.a** - Identify sources of light energy, heat energy, and energy of motion.
2	**GPS.02.SC.C.PS.S2P2.b** - Describe how light, heat, and motion energy are used.
2	**GPS.02.SC.C.PS.S2P3** - Students will demonstrate changes in speed and direction using pushes and pulls.
2	**GPS.02.SC.C.PS.S2P3.a** - Demonstrate how pushing and pulling an object affects the motion of the object.
2	**GPS.02.SC.C.PS.S2P3.b** - Demonstrate the effects of changes of speed on an object.
/ 3rd Term	
Term	**Standard**
3	**GPS.02.SC.C.ES.S2E1** - Students will understand that stars have different sizes, brightness, and patterns.
3	**GPS.02.SC.C.ES.S2E1.a** - Describe the physical attributes of stars□size, brightness, and patterns.
3	**GPS.02.SC.C.ES.S2E2** - Students will investigate the position of sun and moon to show patterns throughout the year.
3	**GPS.02.SC.C.ES.S2E2.d** - Use observations and charts to record the shape of the moon for a period of time.
3	**GPS.02.SC.C.ES.S2E3** - Students will observe and record changes in their surroundings and infer the causes of the changes.
3	**GPS.02.SC.C.ES.S2E3.a** - Recognize effects that occur in a specific area caused by weather, plants, animals, and/or people.
3	**GPS.02.SC.CS.LS.S2L1** - Students will investigate the life cycles of different living organisms. Teacher note: Instruct students not to touch wild plants and animals when they observe them. Always wash hands after handling any plants or animals. Caution students not to eat wild plants they find.
3	**GPS.02.SC.CS.LS.S2L1.a** - Determine the sequence of the life cycle of common animals in your area: a mammal such as a cat or dog or classroom pet, a bird such as a chicken, an amphibian such as a frog, and an insect such as a butterfly.
/ 4th Term	
Term	**Standard**
4	**GPS.02.SC.C.ES.S2E3** - Students will observe and record changes in their surroundings and infer the causes of the changes.
4	**GPS.02.SC.C.ES.S2E3.a** - Recognize effects that occur in a specific area caused by

	weather, plants, animals, and/or people.
4	**GPS.02.SC.CS.LS.S2L1** - Students will investigate the life cycles of different living organisms. Teacher note: Instruct students not to touch wild plants and animals when they observe them. Always wash hands after handling any plants or animals. Caution students not to eat wild plants they find.
4	**GPS.02.SC.CS.LS.S2L1.a** - Determine the sequence of the life cycle of common animals in your area: a mammal such as a cat or dog or classroom pet, a bird such as a chicken, an amphibian such as a frog, and an insect such as a butterfly.
4	**GPS.02.SC.CS.LS.S2L1.b** - Relate seasonal changes to observations of how a tree changes throughout a school year.
4	**GPS.02.SC.CS.LS.S2L1.c** - Investigate the life cycle of a plant by growing a plant from a seed and by recording changes over a period of time.
4	**GPS.02.SC.CS.LS.S2L1.d** - Identify fungi (mushrooms) as living organisms.