

This document outlines the academic goals, the activities and materials used in the Second Grade class in order to achieve high academic success. There is a great deal of overlap in the standards within the activities and within the core areas, thus, standards addressed repeatedly throughout the year.

Time period	Standard	Resources (unit in textbook, learning center, recurring activity, other)	Internet/Media/ other resource
Weeks 3_ to _10	(1) Scientific investigation and reasoning. The student conducts classroom and outdoor investigations following home and school safety procedures. The student is expected to:		
	(A) identify and demonstrate safe practices as described in the Texas Safety Standards during classroom and outdoor investigations, including wearing safety goggles, washing hands, and using materials appropriately;	Teach and reinforce in all science lessons	
	(B) describe the importance of safe practices; and	Same as above	
	(C) identify and demonstrate how to use, conserve, and dispose of natural resources and materials such as conserving water and reuse or recycling of paper, plastic, and metal.		Brain pop jr.

<p>Weeks _10 to _15_</p>	<p>(2) Scientific investigation and reasoning. The student develops abilities necessary to do scientific inquiry in classroom and outdoor investigations. The student is expected to:</p>		
	<p>(A) ask questions about organisms, objects, and events during observations and investigations;</p>	<p>Record in weekly science journals</p>	
	<p>(B) plan and conduct descriptive investigations such as how organisms grow;</p>	<p>Weekly science journals/observations on growth. For example, plants, molds, sprouts, etc.</p>	
	<p>(C) collect data from observations using simple equipment such as hand lenses, primary balances, thermometers, and non-standard measurement tools;</p>	<p>Weekly science journals/units on various kinds of growth. For example, plant unit,</p>	
	<p>(D) record and organize data using pictures, numbers, and words;</p>	<p>Weekly science journal observations</p>	
	<p>(E) communicate observations and justify explanations using student-</p>	<p>Weekly presentation of journals</p>	

	generated data from simple descriptive investigations; and		
	(F) compare results of investigations with what students and scientists know about the world.	Internet search engine on scientific facts for kids	
Weeks _10-_ to _20_	(3) Scientific investigation and reasoning. The student knows that information and critical thinking, scientific problem solving, and the contributions of scientists are used in making decisions. The student is expected to:		
	(A) identify and explain a problem in his/her own words and propose a task and solution for the problem such as lack of water in a habitat;	Brainstorm scientific problems that relate to us. For example, litter, and brainstorm solutions and come up with a plan to do our part.	Brain pop jr.
	(B) make predictions based on observable patterns; and	View charts and make predictions	
	(C) identify what a scientist is and explore what different scientists do.	Discuss what scientists do and different kinds of scientists and different jobs available within the science field.	http://science.discovery.com/

<p>Weeks 10__ to __20</p>	<p>(4) Scientific investigation and reasoning. The student uses age-appropriate tools and models to investigate the natural world. The student is expected to:</p>		
	<p>(A) collect, record, and compare information using tools, including computers, hand lenses, rulers, primary balances, plastic beakers, magnets, collecting nets, notebooks, and safety goggles; timing devices, including clocks and stopwatches; weather instruments such as thermometers, wind vanes, and rain gauges; and materials to support observations of habitats of organisms such as terrariums and aquariums; and</p>	<p>Use tools available to record, collect, and measure various scientific data</p>	
	<p>(B) measure and compare organisms and objects using non-standard</p>		

	units that approximate metric units.		
Weeks _20_ to25 —	(5) Matter and energy. The student knows that matter has physical properties and those properties determine how it is described, classified, changed, and used. The student is expected to:		
	(A) classify matter by physical properties, including shape, relative mass, relative temperature, texture, flexibility, and whether material is a solid or liquid;	Identify and discuss the physical properties of matter	Brain pop jr.
	(B) compare changes in materials caused by heating and cooling;	Demonstration on physical changes caused by heating and cooling.	
	(C) demonstrate that things can be done to materials to change their physical properties such as cutting, folding, sanding, and melting; and	Class demonstration using different materials	http://science.discovery.com/
	(D) combine materials that when put together can do	Experiments using various materials	http://science.discovery.com/

	things that they cannot do by themselves such as building a tower or a bridge and justify the selection of those materials based on their physical properties.		
Weeks _25 to _30_	(6) Force, motion, and energy. The student knows that forces cause change and energy exists in many forms. The student is expected to:		
	(A) investigate the effects on an object by increasing or decreasing amounts of light, heat, and sound energy such as how the color of an object appears different in dimmer light or how heat melts butter;	Perform various experiments	http://science.discovery.com/ http://www.sciencebuddies.org/science-fair-projects/project_ideas.shtml
	(B) observe and identify how magnets are used in everyday life;	Internet and hands on study of magnets	
	(C) trace the changes in the position of an object over time such as a cup rolling on the floor and a car	Experiments on objects in motion	

	rolling down a ramp; and		
	(D) compare patterns of movement of objects such as sliding, rolling, and spinning.	Same as above	
Weeks _25_ to _30_	(7) Earth and space. The student knows that the natural world includes earth materials. The student is expected to:		
	(A) observe and describe rocks by size, texture, and color;	Collect and make observations	
	(B) identify and compare the properties of natural sources of freshwater and saltwater; and	Internet research	
	(C) distinguish between natural and manmade resources.	discussion	www.proteacher.org
Weeks _1_ to _33_	(8) Earth and space. The student knows that there are recognizable patterns in the natural world and among objects in the sky. The student is expected to:		
	(A) measure, record, and graph weather information, including temperature, wind conditions,	Daily calendar activities/weather observations	http://video.nationalgeographic.com/video/kids/science-space-kids/

	precipitation, and cloud coverage, in order to identify patterns in the data;		
	(B) identify the importance of weather and seasonal information to make choices in clothing, activities, and transportation;	Daily calendar activities	Internet weather forecast
	(C) explore the processes in the water cycle, including evaporation, condensation, and precipitation, as connected to weather conditions; and	Classroom experiment with evaporation/condensation	
	(D) observe, describe, and record patterns of objects in the sky, including the appearance of the Moon.	Observe, discuss, and record	
Weeks _25_ to _30_	(9) Organisms and environments. The student knows that living organisms have basic needs that must be met for them to survive within their environment. The student is expected to:		
	(A) identify the basic needs of plants and	Field trip to farm	Brain pop jr.

	animals;		
	(B) identify factors in the environment, including temperature and precipitation, that affect growth and behavior such as migration, hibernation, and dormancy of living things; and		Brain pop jr
	(C) compare and give examples of the ways living organisms depend on each other and on their environments such as food chains within a garden, park, beach, lake, and wooded area.		Brain pop jr
Weeks _30- 33_ to —	(10) Organisms and environments. The student knows that organisms resemble their parents and have structures and processes that help them survive within their environments. The student is expected to:		
	(A) observe, record, and compare how the physical characteristics and behaviors of	Fieldtrip to farm/ classroom pet fish observation	

	<p>animals help them meet their basic needs such as fins help fish move and balance in the water;</p>		
	<p>(B) observe, record, and compare how the physical characteristics of plants help them meet their basic needs such as stems carry water throughout the plant; and</p>	<p>Plant seeds and care for and watch/record growth</p>	<p>Brain pop jr.</p>
	<p>(C) investigate and record some of the unique stages that insects undergo during their life cycle.</p>	<p>Discuss/collect/observe/record various insects</p>	<p>Brainpop jr. Superteacher.com</p>