Assessment	Learning Objectives/Concepts	Student Performance Objectives	Resources/Activities	Assessments	Terminology
3.2.6.B6	All matter is made up of particles that are far too small to see directly through a microscope.	Students will be able to recognize, apply, and describe appropriate methods of measurement.	***FOSS MIXTURES AND SOLUTIONS*** (Mandatory)		mass system
3.2.6.A1	Volume and mass can be differentiated.	Students will be able to identify and describe mixtures and solutions.	Unit E Ch 4 Lesson 1 E106-107 Investigate E110 Investigation Challenge	Chapter 4 Test Standardized Test Prep p. 107 p. 108 p. 109 p. 110	elements reflection refraction solution mixture
3.2.6.A1	Equal volumes of different substances usually have different masses.	Students will be able to describe, apply, compare, and contrast physical and chemical changes.			
3.2.6.A2	Pure substances and mixtures can be compared and contrasted.	Students will be able to apply operational definitions to determine relative concentrations of solutions.	Unit E Ch 4 Lesson 2 E114-115 Investigate District Materials: "Bottle Organ", "Mysterious Magic", "The Science of Sound", "Making a Shoe-Box Guitar"		
3.2.6.A2	When two or more substances are combined, they may form a mixture and maintain their original properties or they may react chemically to form a new substance with new properties.	Students will be able to use group problem solving techniques to plan an investigation.	Unit E Ch 4 Lesson 3 E130 Reading Mini-Lesson - Predict Outcomes E133 Activities for Home and School, "Reflection and Refraction"		molecule wavelength periodic table
3.2.6.A3	Mass is conserved in a closed system.	Students will be able to use scientific thinking processes to conduct investigations and defend explanations through observation, comparing, organizing, and communicating.	District Materials: "Adding Colors: An Optical Experiment"		substance
3.2.6.A4	Physical and chemical changes may be compared and contrasted.	Students will be able to use appropriate tools during investigations to achieve an answer.			electromagnetic energy
3.2.6.A5	We can use properties of matter to separate one substance from another.	Students will be able to compare and contrast saturated versus unsaturated solutions.			chemical energy pitch
3.2.7.A1	Elements, compounds, and mixtures can be differentiated.				
3.2.7.A1	Compounds may only be broken down into simpler types of matter (elements) by chemical means.	Students will be able to apply connections through a process of evaporation, saturation, concentration, and reactions.			

Physical Science

Assessment Strand	Learning Objectives/Concepts	Student Performance Objectives	Resources/Activities	Assessments	Terminology
3.2.7.A2	Atoms are the basic building blockes of matter and elements are composed of one type of atom.	Students will be able to observe and describe, through use of a variety of senses, the physical properties of matter.			
3.2.7.B2 3.2.5.B5	Energy appears in different forms (sound and light) and can be transformed through a system or transferred from one system to another.	Students will be able to identify, compare, and contrast the parts of a wave. Students will be able to describe how waves carry energy and compare and contrast wave types.			
CC.3.5.6-8.A	Scientists cite textual evidence to support analysis of what the text says as well as inferences and/or generalizations drawn from the text.	Students will be able to develop and apply all parts of the scientific method beginning with an investigable question.			
CC.3.5.6-8.J	Sceintists read and comprehend science and technical texts, reading independently and proficiently.				
CC.3.5.6-8.G	Scientists include multimedia components and visual displays in presentations to clarify technical information. Using appropriate tools and technologies to gather, analyze, and interpret data enhances accuracy and allows scientists to analyze and quantify results of investigations.				
CC.3.5.6-8.H	Distinguish among facts and reasoned judgment based on research findings ans speculation in a text.				

Assessment Strand	Learning Objectives/Concepts	Student Performance Objectives	Resources/Activities	Assessments	Terminology
			Health Resources/Activities		
10.1.A 10.1.C 10.1.D 10.1.E 10.2.B 10.2.D 10.3.A	A healthy lifestyle and healthy environment are interdependent. Our family, close friends, education and other factors such as finance are important in determining how we grow and develop from small children to the teenage years. Your safety and health are influenced by how personal decisions are made.		Science Text R8-9; HWB 1-4 Science Text R14-15 HWB 13-14 Science Text R16-17 HWB15-16		
			Recommended Time Frame: 53-60 days		

Assessment Strand	Learning Goals/Concepts	Student Performance Objectives	Resources/Activities	Assessments	Terminology
3.3.5.B1	The rhythms of Earth are caused by three celestial motions: Earth's rotation, revolution around the sun, and the moon's revolution around Earth.	Students will be able to compare and contrast patterns in celestial movement. Students will be able to predict and describe the systems/patterns of planetary movement (including the moon).	Unit D Ch 3 Lesson 1 D76-77 Investigate District Materials: "An Out of This World Solar System project" Unit D Ch 3 Lesson 2 D84-85 Investigate D89 Reading Mini-Lesson - Cause and Effect	Chapter 3 Test Standardized Test prep p.75 p.76 p.77 p.78 p.79 p.80	atmosphere axis ellipse model orbit
3.3.5.B1	Earth's rotation around its tilted axis cause day and night.	Students will be able to identify parts of the solar system and recognize how far stars are from Earth.	Unit D Ch 3 Lesson 3 D93 Process Skill Tip - Gather and Interpret Data D97 Reading Mini-Lesson - Compare and Contrast		phases
3.3.6.B1	The tilt of Earth's axis and its revolution around the sun cause uneven heating of Earth which in turn causes the seasons and weather patterns.	Students will be able to predict seasonal changes based on planetary movement and relationship to the sun.	Unit D Ch 3 Lesson 4 D109 "Spinning Planets", "Planets on Other Planets" District Materials: "Project 88: Wane, Wane, Go Away"		planetary system revolution rotation season
3.3.6.B1	Size, composition, and surface features of the planets and the objects orbiting them can be compared and contrasted.	Students will be able to compare and contrast Earth's planetary features to other planets in our solar system.			
3.3.6.B2	We can use models to demonstrate Earth's seasons and weather patterns.	Studentsw ill be able to illustrate Earth's seasons, weather patterns, and moon phases in relation to orbit.	District Materials: "Gravity"		
3.3.6.B2	We can use models to demonstrate that the phases of the moon are a result of its orbit around Earth.				
CC.3.5.6-8.B	Scientists determine the central ideas or conclusions of a text and provide an accurate summary of the text distict from prior knowledge and opinions.				
CC.3.5.6-8.C	Scientists precisely follow multistep procedures when carrying out experiments, taking measurements, or performing technical tasks.				

Assessment Strand	Learning Goals/Concepts	Student Performance Objectives	Resources/Activities	Assessments	Terminology
CC.3.5.6-8.D	Determine meanings of symbols and key terms as they are used in specific scientific or technical context.				
CC.1.4.6.V	Scientists conduct short research projects to answer a question refocusing on inquiry when appropriate.				
CC.1.4.6.W	Scientists gather relevant information from multiple sources, quote and paraphrase the data and conclusions of others while avoiding plagiarism and providing basic bibliographic information for sources. Scientific descriptions, explanations, and models use evidence, have logically consistent arguments, and are based on scientific principles, models, and theories.				

Assessment Strand	Learning Goals/Concepts	Student Performance Objectives	Resources/Activities	Assessments	Terminology
			Health Resources/Activities		
10.1.A 10.1.B 10.1.C 10.1 D 10.1.E 10.2.A 10.2.D 10.3.A 5.3.C.G	Your well-being is linked to responsible healthy habits. The way our multiple body systems function determines our level of health. Many factors such as peers, body image, and stress are factors that influence teens' drug use. Good choices and actions (safe practices) need to be applied during individual physical activity settings. There are appropriate responses you can use in an emegency. There are good choices and actions (safe practice strategies) you can use to manage conflict and violence.		Science Text R18-19 HWB17-18 Science Text R20-21 HWB19-20 Science Text R26-27 HWB27-29 Science Text R34-35 HWB36-38 ***Recommended Time Frame: 17-21 days***		

Assessment Strand	Learning Goals/Concepts	Student Performance Objectives	Resources/Activities	Assessments	Terminology
3.1.6.A4 3.1.7.A5	All living things are made up of smaller units called cells; the cell is the basic structural and functional unit of living things.	Students will be able to illustrate and identify the structures and functions of plant and animal cells and organelles.	Unit A Ch 1 Lesson 1 A4-5 Investigate District Materials: "Jello 3-D Animal Cell Craft"	Chapter 1 Test Standardized Test Prep p.1 p.2 p.3	asexual reproduction DNA
3.1.5.A5	There are defining structures of cells for both plants and animals.	Students will be able to compare and contrast the structure of plant and animal cells.	Unit A Ch 1 Lesson 2 A20 Investigation Challenge District Materials: "Easter Egg Genetics"	District Materials: "Jelly Genes Lab"	genetics genetic engineering
3.1.6.A4 3.1.6.A6	Some organisms are made up of only one cell; some are many-celled.	Students will be able to compare and contrast mitosis and meiosis.	Unit A Ch 1 Lesson 3 A28 Science Ideas and Process Skills A30 Investigation Challenge		meiosis
3.1.6.A5	Plants and animals have basic structures that contribute to their ability to make or find food and reproduce.	Students will be able to recognize that plant and animal traits come from parental traits.	A35 Activities for Home or School District Materials: "Moss Experiment", "Inherited Traits", "Comparing Inherited Human Traits" Project Learning Tree: p. 34-36 "Picture This!"		mitosis multicellular
3.1.6.A2	Photosynthesis uses energy from the sun to produce food for plants and is transferred within a food chain.	Students will be able to identify and describe the characteristics of the five kingdoms of living things.	Unit A Ch 2 Lesson 1 A40-41 Investigate	Chapter 2 Test Performance Assessment:	photosynthesis sexual reproduction
3.1.6.A8	Most cells are visible only through a microscope.	Students will be able to apply a dichotomus key to identify the species of an organism.	A41 Process Skill Tip - Classify A46 Reading Mini-Lesson - Summarize/Paraphrase A48 Investigation Challenge	AG13-14 "A Dichotomous Key"	species
3.1.6.A1	Characteristics in plants, animals, fungi, bacteria, and protists can be compared and contrasted.	Students will be able to describe and list how plants grow from seeds to adults.	Unit A Ch 2 Lesson 2 A50-51 Investigate A51 Process Skill Tip - Gather and Record Data		unicellular dominant traits
3.1.7.B1	The gene is the basic unit of inheritance; genetic instructions influence inherited traits.	Students will be able to identify, compare and contrast different plant types, their needs, and their structures to thrive.	A55 Reading Mini-Lesson - Fact/Opinion		recessive traits
3.1.5.B1	Inherited and acquired characteristics in plants and animals can be compared and contrasted.	Students will be able to describe plant responses to different stimuli.	A56 Investigation Challenge A61 "Sorting Pasta" District Materials: "Chaos Within the Living World"		
			Recommended Time Frame: 21-26 days		

Assessment Strand	Learning Goals/Concepts	Student Performance Objectives	Resources/Activities	Assessments	Terminology
4.1.5.A	Producers, consumers, and decomposers have roles within an ecosystem.	Students will be able to evaluate the impact of research and technology on scientific thought, society, and the environment.	Unit B Ch 1 Lesson 1 B4-5 Investigate B5 Process Skill Tip - Identify/Control Variables District Materials: "Plant Straws", "Charting Seed Growth", "Vascular Plant Experiment"	Ch 1 Test Standardized Test Prep p.15 p.16	
4.1.5.C	There are various food webs, which may include humans.			District Materials: Photosynthesis Questions	
4.2.6.A	PA has 5 major watersheds.		Unit B Ch 1 lesson 2 B12-13 Investigate B15 Reading Mini-Lesson - Make Generalizations		
4.2.5.C 4.2.6.C	There are natural and human-made factors that affect water quality - (physical, chemical, biological)		B21 Activities for Home or School Project Learning Tree: p.179-181 "How Plants Grow" Project Learning Tree: p.269-272 "The Tree Factory" District Materials: "Trees With Raincoats"		
4.4.5.A 4.4.6.A	Animal production depends on plant production; each grow depending on climate and soil conditions.		Unit B Ch 2 Lesson 1 B26-27 Investigate District Materials: "Moss Experiment"		
4.5.6.A	Sustainable use of natural resources is essential for the survival of humans and other living things; historical events have shaped the use of natural resources.		Unit B Ch 2 Lesson 2 B32-33 Investigate B40 Investigation Challenge	Ch 2 Test Standardized Test Prep p. 19 p.20 p.21	
4.4.5.C	Plant and animal growth is influenced by soil, water, nutrients, and light factors.		Unit B Ch 2 Lesson 3 B42-43 Investigate District Materials: "Fruits and Veggies" handout	p.22 p.23	
4.5.6.C	Key people and events have shaped the environmental history in the U.S.		Unit B Ch 2 Lesson 4 B50-51 Investigate		
			Unit B Ch 3 Lesson 1 B66-67 Investigate: Facts and Details B70 Reading Mini-Lesson - Identify Supporting	Chapter 3 Test Standardized Test Prep p.25	
			Unit B Ch 3 Lesson 2 B74-75 Investigate B78 Reading Mini-Lesson - Cause and effect United Streaming	p.26 p.27	

Assessment Strand	Learning Goals/Concepts	Student Performance Objectives	Resources/Activities	Assessments	Terminology
CC.1.3 CC.1.4	Scientists acquire and use general scientific words and phrases; they gather vocabulary knowledge when considering a word or phrase important to comprehension or expression. Scientists organize ideas, concepts, and information using strategies such as classification, comparison/ contrast, and cause/effect.		Unit B Ch 3 Lesson 3 B84-85 Investigate B97 Activities for Home or School United Streaming		
	Scientists develop and analyze topics with relevant facts, definitions, details, or other information and include graphics and multimedia when useful to help with comprehension. Scientists design and conduct scientific investigations. They understand that current scientific knowledge guides their investigations.		Unit B Ch 4 Lesson 1 B102-103 Investigate B109 reading Mini-Lesson Unit B Ch 4 Lesson 2 B112-113 Investigate B113 Process Skill Tip Project Learning Tree: p.52-53 "Charting Diversity"	Chapter 4 Test Standardized Test Prep p.30 p.31 p.32	
CC.3.5.6-8.E	Analyze the structure an author uses to organize a text, including how the major sections contribute to the whole and to an understanding of the topic.				
CC.3.5.6-8.F	Analyze the author's purpose in providing an explanation, describing a procedure, or discussing an experiment in a text.		***Recommended Time Frame: 42-50 days***		
CC.3.5.6-8.I	Compare and contrast information gained from experiments, simulations, video, or multimedia sources with that gained from reading a text on the same topic.				