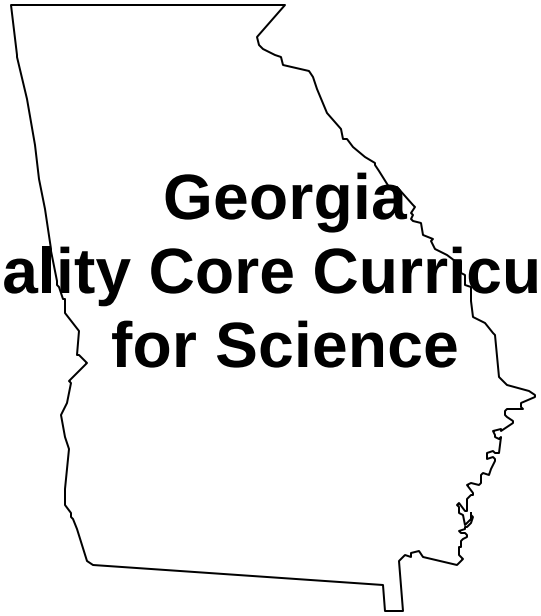
Delta Science Modules

(DSM II and DSM III)
Grades K-8

Correlation With



Georgia
Quality Core Curriculum
for Science

Delta Education
...because children learn by doing

Delta Science Modules
(DSM II and DSM III)
Grades K-8

Correlation With
Georgia Quality Core Curriculum for Science

The following correlation of the Georgia Quality Core Curriculum to the Delta Science Modules Program is to show representative examples of investigations and activities that address listed standards and objectives. A citation does not reflect all of the investigations or activities from DSM that might address a particular standard or objective.

November, 2005

Subject Area: Science **State-Funded Course: Kindergarten**
Textbook Title: Delta Science Modules (DSM)
Publisher: Delta Education LLC

Objective (Cite Number)	Component Strand/Course Content Standard	Where Taught (If print component, cite page number; if non-print, cite appropriate location)
	Inquiry	
1.	Asks questions, makes and keeps simple records of observations, sorts objects, communicates with others, and makes predictions and uses estimation and measurement.	This standard is addressed in ALL DSM modules. See for example: **Properties**, Activity 4 and 5, Pages 33-46 **Investigating Water**, Activity 7 and 8, Pages 55-69 **Observing an Aquarium**. Activity 10 and 11, Pages 97-116
2.	Uses books and other media to obtain information related to science concepts.	This standard is addressed with DSM III Readers and DSM Connections. See for example: **From Seed to Plant**, Activity 6, Science and Language Arts, Page 58 **Observing an Aquarium**, Activity 5, Science and Language Arts, Page 46
3.	Identifies and practices accepted safety procedures in manipulating science materials and equipment.	Safety is stressed in ALL DSM activities. See for example: **Sunshine and Shadows**, Activity 10, Page 79 **Investigating Water**, Activity 8, Page 65
4.	Actively engages in the learning process via hands-on/minds-on science activities. Uses appropriate tools to collect and analyze data and solve problems.	This standard is addressed in ALL DSM modules. See for example: **From Seed to Plant**, Activity 3 and 4, Pages 33-44 **Finding the Moon**, Activity 7 and 8, Pages 63-76 **Sunshine and Shadows**, Activity 9-11, Pages 71-88

5.	**Physical Science** Sorts collections of matter by any physical characteristic. Classifies objects according to pairs of opposite physical properties such as large, small; heavy, light; sink, float; hot, cold; wet, dry; or light, dark.	**Properties**, Activity 1-6, 10-11, Pages 13-52, 75-86 Reader, Pages 3-4,11 **Investigating Water**, Activity 5, 7, Pages 41-46, 55-61 Reader, Page 12 **From Seed to Plant**, Activity 1, Pages 15-20
6.	Sorts by shape, color, size and texture. Differentiates matter based on contrasts in physical characteristics such as color, texture, size or shape.	**Properties**, Activity 3-6, Pages 25-52 Reader, Page 3 **Investigating Water**, Activity 4, Pages 35-40 **From Seed to Plant**, Activity 1, Pages 15-20
7.	Predicts properties of matter and test predictions. Constructs groups of objects by demonstrating characteristics, such as sink/float, bend/rigid, attracted/not attracted by magnet. Demonstrates that air takes up space and has mass by testing these properties using activities, such as using balloons or sitting on inflated large bags	**Properties**, Activity 9-11, Pages 67-86 Reader, Pages 8, 11-13 **Investigating Water**, Activity 5-6, Pages 41-54 Reader, Page 12
8.	Recognizes, describes and compares colors and sorts by color families. Identifies, names and groups objects by color.	**Properties**, Activity 3, Pages 25-32 Reader, Page 3
9.	Identifies relationship between light and shadows, and predicts occurrence of shadows. Makes shadows with objects and tells where shadows will occur. Identifies objects based on their size and shape of their shadows.	**Finding the Moon**, Activity 5, Pages 39-46 **Sunshine and Shadows**, Activity 1-12, Pages 13-95 Reader, Pages 4-7
10.	Observes sources of light and variations in shadows. Locates source of light causing shadows. Identifies how shadows change as light source changes location in relationship to the object.	**Sunshine and Shadows**, Activity 4-11, Pages 33-88 Reader, Pages 8-9 **Finding the Moon**, Activity 5, Pages 47-54

	Life Science	
11.	Describes differences between living and nonliving things, and classifies things as living or nonliving. Sorts examples of objects into living and nonliving categories, using the following criteria: movement, growth, reproduction and requirements for food/nutrition, water, and air.	**From Seed to Plant**, Activity 1-2, Pages 15-31 Reader, Pages 2-9,12 **Observing an Aquarium**, Activity 2-6, Pages 23-67 Reader, Pages 2-9
12.	Recognizes basic needs of most living things. Compares common needs between a plant and animal (such as sunshine, air, food, and water).	**Observing an Aquarium**, Activity 2, Pages 23-30 Reader, Pages 8-9, 12 **From Seed to Plant**, Activity 2, 8, 11, Pages 21-31, 67-72, 85-90 Reader, Pages 8, 12
13.	Recognizes factors leading to the survival of living things. Describes the conditions affecting survival of species, including changes in climate, availability of shelter, food, air, water, and human encroachment.	**From Seed to Plant**, Activity 8, 11, Pages 67-72, 85-90 Reader, Page 15 **Observing an Aquarium**, Activity 11, Pages 109-116 Reader, Page 12
14.	Recognizes and describes individual characteristics. Names positive ways he or she is similar and different from others in the group	**Observing an Aquarium**, Activity 4-5, Pages 39-55 **From Seed to Plant**, Activity 3, Pages 33-39 Reader, Page 2, 7
15.	Uses senses to sort and classify colors, shapes, sizes, sounds, tastes, odors, textures, and temperatures. Categorizes objects according to color, shape, size, sound, taste, odor, texture, and temperature, using the five senses.	**Properties**, Activity 1-9, Pages 13-73 Reader, Pages 3-7 **Investigating Water**, Activity 1, 9, Pages 13-20, 71-80 **From Seed to Plant**, Activity 1, Pages 15-20
16.	Interprets and distinguishes a variety of audio, visual, and tactile stimuli. Identifies the meaning of various sensory stimuli, such as traffic lights, stop signs, sirens, speed breakers, bells, railroad crossings, and gestures.	**Properties**, Activity 5, Pages 41-46 Activity 7, Science Challenge, Page 60 **Sunshine and Shadows**, Activity 12, Pages 89-95 **Investigating Water**, Activity 1, Pages 13-20
17.	**Earth/Space Science**	**Properties**, Activity 7-9, Pages 53-73

	Recognizes and names common earth materials, such as soil, rocks, water, and air.	Activity 7, Science Challenge, Page 60 Reader, 2, Pages 14-15 **Investigating Water**, Activity 1-2, 9-12, Pages 13-26, 71-100 Reader, Pages 2-3
18.	Sorts rocks and soils by color, size, and texture.	**Properties**, Activity 7, Science Challenge, Page 60 **From Seed to Plant**, Activity 12, Science Extension, Page 96
19.	Recognizes features and characteristics of the Earth's surface. Identifies common surface features such as oceans, lakes, mountains and others through audiovisuals, models or direct observation.	**Finding the Moon**, Activity 6, Pages 55-61 Activity 7, Science and Social Studies, Page 69

Subject Area: Science **State-Funded Course: Grade One**
Textbook Title: Delta Science Modules (DSM)
Publisher: Delta Education LLC

Objective (Cite Number)	Component Strand/Course Content Standard	Where Taught (If print component, cite page number; if non-print, cite appropriate location)
	Inquiry	
1.	Asks questions, makes and keeps simple records of observations, sorts and classifies objects, communicates with others, makes predictions, uses estimation and measurement, and makes sketches and diagrams to explain ideas.	This standard is addressed in ALL DSM modules. See for example: **Properties**, Activity 4 and 5, Pages 33-46 **Investigating Water**, Activity 7 and 8, Pages 55-69 **Observing an Aquarium**. Activity 10 and 11, Pages 97-116
2.	Uses books and other media to obtain information related to science concepts.	This standard is addressed with DSM III Readers and DSM Connections. See for example: **From Seed to Plant**, Activity 6, Science and Language Arts, Page 58 **Observing an Aquarium**, Activity 5, Science and Language Arts, Page 46
3.	Identifies and practices accepted safety procedures in manipulating science materials and equipment.	Safety is stressed in ALL DSM activities. See for example: **Sunshine and Shadows**, Activity 10, Page 79 **Investigating Water**, Activity 8, Page 65
4.	Actively engages in the learning process via hands-on/minds-on science activities and experiences. Uses appropriate tools to collect and analyze data and solve problems.	This standard is addressed in ALL DSM modules. See for example: **From Seed to Plant**, Activity 3 and 4, Pages 33-44 **Finding the Moon**, Activity 7 and 8, Pages 63-76 **Sunshine and Shadows**, Activity 9-11, Pages 71-88

	Physical Science	
5.	Explains the role of vibrations in sound production. Demonstrates how vibrating rubber bands produce sound.	**Using Your Senses**, Activity 5-6, Pages 45-60* Reader, Page 7
6.	Compares and explores sounds made by different musical instruments.	**Using Your Senses**, Activity 6, Pages 53-60 Activity 6, Science and the Arts, Page 60*
7.	Describes and compares variation in sound, such as high, low; quiet, loud; harsh, pleasant and emergency. Produces sounds that vary in pitch and intensity and understands the meaning these have to humans. Compares and groups sounds or objects that make sounds.	**Using Your Senses**, Activity 6, Pages 53-60* *Note: Using Your Senses is a grade 2 module.
8.	Differentiates between and identifies objects attracted by a magnet and those not attracted by a magnet.	**Properties**, Activity 11, Pages 81-86 Reader, Page 8
9.	Shows the ability of magnets to attract and repel (paper clips, tacks) and to do so through materials such as paper, cloth, and glass.	**Properties**, Activity 11, Pages 81-86 Reader, Page 8
10.	Predicts whether different materials will be attracted or repelled by a magnet, based on results of attraction and repulsion activities.	**Properties**, Activity 11, Pages 81-86 Reader, Page 8
	Life Science	
11.	Compares and describes different animals in the ways they look, grow, and move; such as tadpoles, caterpillars, kittens, puppies, colts, chicks, snakes, sharks, opossums and eagles.	**Observing an Aquarium**, Activity 4-6, 8-9, Pages 39-67, 79-95 Reader, Pages 4-11
12.	Compares various animal groups and how they are alike and different. Identifies groups of animals that have similar characteristics and names the characteristics.	**Observing an Aquarium**, Activity 4-5, Pages 39-55 Activity 4, Science Extension, Page 46 Activity 9, Science and Language Arts, Page 95 Reader, Pages 4-9

13.	Describes and compares characteristics of different animals such as coloration that enhance survival.	**Observing an Aquarium**, Activity 4-5, Pages 39-55 Activity 5, Science Extension, Page 53
14.	Compares young animals with their parents and other types of young animals. Identifies and matches young animals with their parents.	**Observing an Aquarium**, Activity 10, Pages 97-107 Reader, Pages 10-11
	Earth/Space Science	
15.	Makes observations about weather. Records daily weather observations and changes as they relate to seasonal variations.	**Weather Watching**, Activity 1-5, Pages 13-50*
16.	Investigates weather events and makes observations using related instruments. Investigates occurrences such as tornadoes, hurricanes, thunderstorms, droughts, showers, fog, and snow.	**Weather Watching**, Activity 2-5, 8-10, Pages 21-50, 69-100* Reader, Pages 11-12
17.	Compares and contrasts differences in weather by seasons. Constructs weather charts showing daily temperature changes, precipitation, cloud cover and wind during different seasons.	**Weather Watching*** Reader, Pages 8-10
18.	Makes observations using weather-related instruments. Measures weather characteristics using thermometers, weather vanes and rain gauges.	**Weather Watching**, Activity 2-5, Pages 21-50* Reader, Pages 6-7 *Note: Weather Watching is a grade two module

Subject Area: Science **State-Funded Course: Grade Two**
Textbook Title: Delta Science Modules (DSM)
Publisher: Delta Education LLC

Objective (Cite Number)	Component Strand/Course Content Standard	Where Taught (If print component, cite page number; if non-print, cite appropriate location)
	Inquiry	
1.	Asks questions, classifies objects based on similarities and differences, communicates with others, makes inferences and predictions, uses estimation and measurement, uses evidence to construct explanations, and makes sketches and diagrams to explain ideas.	This standard is addressed in ALL DSM modules. See for example: **Using Your Senses**, Activity 1-3, Pages 13-36 **Soil Science**, Activity 2-4, Pages 21-44 **Sink or Float**, Activity 1-3, Pages 13-34
2.	Uses books and other media to obtain information related to science concepts.	This standard is addressed with DSM III Readers and DSM Connections. See for example: **Butterflies and Moths**, Activity 9, Science and Language Arts, Page 87 **Classroom Plants**, Activity 11, Science and Language Arts, Page 104 **Length and Capacity**, Activity 8, Science and Language Arts, Page 67
3.	Identifies and practices accepted safety procedures in manipulating science materials and equipment.	Safety is stressed in ALL DSM activities. See for example: **States of Matter**, Activity 10, Page 82 **Force and Motion**, Activity 11, Page 105 **Using Your Senses**, Activity 12, Page 99
4.	Actively engages in the learning process via hands-on/minds-on science activities and experiences. Uses appropriate tools to collect and analyze data and solve problems.	This standard is addressed in ALL DSM modules. See for example: **Soil Science**, Activity 10-12, Pages 91-114 **Plant and Animal Populations**, Activity 8-11, Pages 77-110 **Force and Motion**, Activity 3-7, Pages 31-72

	Physical Science	
5.	Recognizes that all matter takes up space and has mass. Observes and discusses the space gases take up in an inflated balloon, water takes up in an aquarium and various solids take up around the room.	**Amazing Air**, Activity 1-6, Pages 7-57 **States of Matter**, Activity 1-3, Pages 13-34 Reader, Pages 2-6 **Length and Capacity**, Activity 8-9, Pages 59-76 **Sink or Float,** Reader, Page 3
6.	Distinguishes among states of matter (solid, liquid, and gas). Sorts objects according to solid, liquid or gas.	**States of Matter**, Activity 1-3, Pages 13-34 Reader, Pages 2-6 **Length and Capacity**, Activity 8, Pages 59-67 **Sink or Float**, Reader, Pages 5-6
7.	Recognizes and compares physical properties of objects (e.g., weight, size, and buoyancy).	**Sink or Float**, Activity 1, 7, Pages 7-19, 61-66 Reader, Pages 7-11 **Length and Capacity**, Activity 1-3, Pages 7-26 **States of Matter**, Activity 7, 11, Pages 57-63, 89-96
8.	Predicts changes in states of matter such as when water is heated or frozen.	**States of Matter**, Activity 4-5, 10-12, Pages 35-50, 81-101 Reader, Pages 7-9
9.	Recognizes that all matter does not change in the same way. Observes a variety of changes such as: a nail in water compared to plastic in water; a wooden block in the freezer compared with water in a freezer; slice of apple compared with slice of orange.	**Soil Science**, Activity 3, Pages 29-36 **States of Matter**, Activity 7, 11, Pages 57-63, 89-96 Reader, Page 7
	Life Science	
10.	Describes how plants use water, nutrients and light to produce their own food in a process called photosynthesis. Compares plants grown with all of these resources with plants deprived of these resources.	**Classroom Plants**, Activity 5, 8, Pages 47-53, 73-79 Reader, Page 9 **Plant and Animal Populations**, Activity 9, Science Extension, Page 93 Reader, Page 4
11.	Compares variables that might affect the growth of plants. Identifies and tests how variables such	**Classroom Plants**, Activity 5, Pages 47-53 **Plant and Animal Populations**, Activity 9, Science Extension,

	as temperature, light, water and nutrients affect plant growth.	Page 93
12.	Identifies and explains function of main parts of a plant. Names parts of plant and explains function of each (root, stem, leaf and flower).	**Classroom Plants**, Activity 6-9, Pages 55-86 Reader, Pages 6-12
13.	Observes and describes plant parts as they grow and change. Compares the roots, stems and leaves of various plants as they grow from seeds to mature plants.	**Classroom Plants**, Activity 3 -4, 6-10, Pages 29-46, 55-95 Reader, Pages 5, 13 **Plant and Animal Populations**, Activity 2, Pages 25-33
14.	Identifies varieties of plants and their uses. Identifies trees, shrubs, herbs, flowers, fruits and vegetables. Recognizes that plants are used for beauty, food, clothing and shelter.	**Classroom Plants**, Activity 1-2, 11-12, Pages 15-28, 97-112 Reader, Pages 2-3, 13 **Plant and Animal Populations**, Activity 3, Pages 35-41 Reader, Page 5
15.	Identifies and describes habitats (desert, woodland, ponds, streams) of plants and animals and their characteristics (light, moisture, temperature).	**Plant and Animal Populations**, Activity 3, Pages 35-41 Reader, Pages 2-3, 5, 7 **Butterflies and Moths**, Activity 4, Pages 39-45
16.	Matches various animals and plants to their habitat based on needs.	**Plant and Animal Populations**, Activity 3, Pages 35-41 Reader, Pages 2-3, 5, 7 **Butterflies and Moths**, Activity 4, Pages 39-45
17.	Identifies the many feeding relationships possible among various plants and animals. Illustrates food chains and food webs and predator-prey relationships.	**Plant and Animal Populations**, Activity 5-7, 9-12, Pages 51-79, 85-117 Reader, Pages 10-13 **Butterflies and Moths**, Activity 10, Pages 89-95 Reader, Page 12
18.	Recognizes how plants and animals interact and depend on one another. Illustrates the many ways plants and animals interact (pollination, shelter and seed dispersal).	**Classroom Plants**, Reader, Pages 3, 10 **Plant and Animal Populations**, Activity 6 -7, Pages 57-76 Reader, Page 11 **Butterflies and Moths**, Activity 4, 8, Pages 39-45, 71-77 Reader, Pages 9, 11

	Earth/Space Science	
19.	Observes and discusses apparent motion of sun and moon. Understands that the sun, moon and stars appear in the east and set in the west. Plots the apparent movement of the sun and moon in the sky using shadows or other devices.	**Sunshine and Shadows**, Activity 4-6, Pages 33-56* Reader, Pages 8-9 **Finding the Moon**, Activity 3, Pages 29-37* **Solar System**, Reader, Pages 6-7**
20.	Describes motion of Earth, moon, and planets in our solar system. Describes how the Earth rotates once a day and revolves around the sun each year, how the moon revolves around the Earth each month and how the planets revolve around the sun in a periodic manner.	**Solar System**, Activity 1 -2, 9, Pages 13-26, 73-81** Reader, Pages 2-12 *Note: Finding the Moon and Sunshine and Shadows are grade one modules. **Solar System is a grade three module.

Subject Area: Science **State-Funded Course: Grade Three**
Textbook Title: Delta Science Modules (DSM)
Publisher: Delta Education LLC

Objective (Cite Number)	Component Strand/Course Content Standard	Where Taught (If print component, cite page number; if non-print, cite appropriate location)
	Inquiry	
1.	Asks questions, classifies objects and events, communicates with others, makes inferences and predictions, uses estimation and measurement, uses evidence to construct explanations, makes sketches and diagrams to explain ideas, and organizes data into tables and charts to interpret and formulate simple hypotheses.	This standard is addressed in ALL DSM modules. See for example: **Using Your Senses**, Activity 1-3, Pages 13-36 **Sink or Float**, Activity 1-3, Pages 13-34 **Small Things and Microscopes**, Activity 12-13, Pages 73-77 **Magnets**, Activity 3-4, Pages 25-34 **Animal Behavior**, Activity 3-6, Pages 19-44
2.	Uses encyclopedias, science reference magazines, books, and other media to obtain information related to science concepts.	This standard is addressed with DSM III Readers and DSM Connections. See for example: **Butterflies and Moths**, Activity 9, Science and Language Arts, Page 87 **Classroom Plants**, Activity 11, Science and Language Arts, Page 104 **Length and Capacity**, Activity 8, Science and Language Arts, Page 67 **Dinosaur and Fossils**, Activity 1, Science Challenge, Page 19
3.	Identifies and practices accepted safety procedures in manipulating science materials and equipment.	This standard is addressed in ALL DSM modules. See for example: **States of Matter**, Activity 10, Page 82 **Force and Motion**, Activity 11, Page 105 **Powders and Crystals**, Activity 7, Page 51
4.	Actively engages in the learning process via hands-on/minds-on science activities and experiences. Uses appropriate tools to collect and analyze data and solve problems	This standard is addressed in ALL DSM modules: **Soil Science**, Activity 10-12, Pages 91-114 **Plant and Animal Populations**, Activity 8-11, Pages 77-110 **Force and Motion**, Activity 5-7, Pages 49-72

	and analyze data and solve problems.	**Animal Behavior**, Activity 9-10, Pages 59-69 **Sound**, Activity 7-10, Pages 59-89
	Physical Science	
5.	Identifies and explores sources of heat energy such as fire and electricity.	**States of Matter**, Activity 7-8, Pages 57-72 **Electrical Circuits**, Activity 8-11, Pages 63-88 Reader, Page 3 **Powders and Crystals**, Activity 9, Pages 63-69 **Water Cycle**, Activity 11-13, Pages 91-114
6.	Identifies heat as a form of energy. Tests effect of heat on ice or water.	**States of Matter**, Activity 7-8, Pages 57-72 **Powders and Crystals**, Activity 9, Pages 63-69
7.	Describes heat and movement of heat by conduction, convection and radiation. Tests and observes movement of heat through a solid (such as a spoon in hot water). Tests and observes movement of heat through a gas or liquid (such as a bottle capped with a balloon placed in hot water).	**Amazing Air**, Activity 4, Pages 35-42 **Powders and Crystals**, Activity 9, Pages 63-69 **States of Matter**, Activity 7-8, Pages 57-72 Reader, Page 8 **Water Cycle**, Activity 11-3, Pages 91-114
8.	Identifies and discusses alternative heat sources such as synthetic fuels and geothermal/nuclear/solar energy.	**Earth Movements**, Activity 10, Science, Technology, and Society, Page 96
9.	Identifies and demonstrates forces, such as push and pull.	**Forces and Motion**, Activity 1-5, Pages 13-55 **Sink or Float**, Activity 1, Pages 13-19 **Amazing Air**, Activity 5, Pages 43-49 **Magnets**, Activity 2-4, Pages 19-34 Reader, pages 2-5 **Electric Circuits**, Reader, Page 8-10
10.	Identifies and compares simple machines and how they work. Compares simple machines (such as levers, wheels, pulleys and inclined planes) based on how well they do a task.	**Force and Motion**, Activity 3, 6-12, Pages 31-39, 57-111 Reader, Pages 5-11

11.	Explains and illustrates how machines help people. Identifies how simple machines help people to do work (carts, hand trucks, and bicycles).	**Force and Motion**, Activity 12, Pages 111-117 Activity 8, Science, Technology, and Society, Page 82 Reader, Pages 6, 8-9, 12-14
12.	**Life Science** Recognizes and describes basic life processes. Identifies evidence of basic life processes in the immediate environment such as gathering and digesting food, excreting waste products, reproducing, breathing and responding to the environment.	**Butterflies and Moths**, Activity 1-2, 10, Pages 15-30, 89-95 Reader, Pages 2-3 **Plant and Animal Populations**, Activity 4-7, 10-11, Pages 43-76, 95-110 **Plant and Animal Life Cycles**, Activity 5, Pages 49-66 Reader, Pages 2-13 **Food Chains and Webs**, Activity 7-10, Pages 59-87 **Insect Life**, Activity 12, Pages 79-83 **Classroom Plants**, Reader, Pages 5, 9-10
13.	Identifies the cell as an important unit of structure in living things. Observes actual cells, cell models, diagrams of cells, and groups of cells	**Small Things and Microscopes**, Activity 7-9, Pages 43-59
14.	Recognizes and describes how traits are passed from parents to offspring. Describes features inherited associated with living things.	**Small Things and Microscopes**, Activity 8, Science, Technology, and Society, Page 54
15.	Recognizes and describes a variety of animal and plant life cycles. Illustrates the life cycles of a chicken, butterfly, frog, turtle, grasshopper, dog and fish.	**Butterflies and Moths**, Activity 1-2, 6, 9, 11, Pages 15-30, 53-59, 79-87, 97-104 Reader Pages 2, 8-13 **Plant and Animal Populations**, Activity 5, Pages 51-57, **Plant and Animal Life Cycles**, Activity 5, 9 -10, Pages 49-56, 83-96 Reader, Pages 2-13 **Insect Life**, Activity 2, 7, Pages 15-22, 47-54 **Classroom Plants**, Reader, Page 5

	Earth/Space Science	
16.	Discusses how fossils are formed. Constructs a fossil. Identifies where fossils are formed and discusses how fossils are uncovered.	**Earth Movements**, Activity 3, Pages 29-37 Activity 3, Science Extension, Page 37 **Dinosaur and Fossils**, Activity 2, Pages 21-28 Reader, Pages 4-5
17.	Identifies and compares similarities and differences in fossils. Using pictures, compares various fossils to each other and to the original organism. Compares fossils to modern organisms.	**Earth Movements**, Activity 3, Reinforcement, Page 36 **Dinosaur and Fossils**, Activity 3, Pages 29-31 Reader, Pages 5, 13-15
18.	Identifies and describes the general characteristics of minerals.	**Soil Science**, Reader, Page 2
19.	Compares and contrasts rocks and minerals. Identifies mineral content in rocks with streak test and other tests.	
20.	Compares various soils such as sandy soil and red clay.	**Soil Science**, Activity 1-4, Pages 15-44 Reader, Pages 7-8 **Food Chains and Webs**, Activity 1, Pages 15-22
21.	Classifies rocks according to the manner in which they are formed. Knows the primary groups of rocks (igneous, metamorphic and sedimentary) and knows that characteristics of rock types are a direct result of how they are formed.	**Earth Movements**, Activity 3, Science Challenge, Page 37 Reader, Page 15

Subject Area: Science **State-Funded Course: Grade Four**
Textbook Title: Delta Science Modules (DSM)
Publisher: Delta Education LLC

Objective (Cite Number)	Component Strand/Course Content Standard	Where Taught (If print component, cite page number; if non-print, cite appropriate location)
	Inquiry	
1.	Asks questions, makes inferences and predictions, uses estimation and measurement, uses evidence to construct explanations, makes sketches and diagrams to explain ideas, organizes data into tables and charts for interpretation, reads and interprets various types of graphs, formulates simple hypotheses, identifies and controls a limited number of variables, and designs a simple experiment.	This standard is addressed in ALL DSM modules. See for example: **Earth Movements**, Activity 3-4, 12, Pages 29-46, 105-110 **Powders and Crystals**, Activity 5-12, Pages 35-93 **Looking at Liquids**, Activity 8-9, Pages 57-69 **Electrical Circuits**, Activity 6-7, Pages 51-62 **Animal Behavior**, Activity 3-6, Pages 19-44
2.	Uses encyclopedias, science reference magazines, books and other media to obtain information related to science concepts.	This standard is addressed with DSM III Readers and DSM Connections. See for example: **Dinosaur and Fossils**, Activity 1, Science Challenge, Page 19 **Animal Behavior**, Activity 3, Science and Language Arts, Page 23 **Plant and Animal Life Cycles**, Activity 2, Science and Language Arts, Page 32
3.	Identifies and practices accepted safety procedures in manipulating science materials and equipment.	Safety is stressed in ALL DSM modules. See for example: **Powders and Crystals**, Activity 9, Page 66 **Electrical Circuits**, Activity 11, Page 87 **Small Things and Microscopes**, Activity 9, Page 55
4.	Actively engages in the learning process via hands-on/minds-on science activities and experiences. Uses appropriate tools to collect	This standard is addressed in ALL DSM modules. See for example: **Water Cycle**, Activity 8-13, Pages 69-114

	and analyze data and solve problems.	**Small Things and Microscopes**, Activity 3-11, Pages 19-71 **Solar System**, Activity 3-8, Pages 27-72 **Weather Instruments**, Activity 1-8, Pages 13-74
	Physical Science	
5.	Demonstrates how a compass can be used to find direction. Shows how magnetism is used to create a compass and how compasses tell direction.	**Magnets**, Activity 7-8, Pages 47-58 Reader, Pages, 7-9 **Weather Instruments**, Activity 4, Pages 37-42
6.	Demonstrates the relationship between electricity and magnetism. Shows evidence of the interaction between magnetism and current electricity (such as making a simple electromagnet).	**Magnets**, Activity 10-11, Pages 65-76 Reader, Pages 10-11 **Electric Circuits**, Reader, Pages 10-11
7.	Investigates materials that do or do not conduct electricity. Tests a variety of materials to determine conductors and insulators.	**Electrical Circuits**, Activity 6 -7, Pages 51-62 Reader, Page 3
8.	Distinguishes between static and current electricity. Produces and identifies examples of static and current electricity such as static cling and complete circuits.	**Electrical Circuits**, Activity 1, Pages 13-17 Activity 1, Science and Language Arts, Page 17 Activity 2, Science Extension, Page 25 Activity 2, Science Challenge, Page 25 Reader, Pages 2-4
9.	Demonstrates differences between open-closed circuits and parallel-series circuits. Constructs examples of open and closed circuits and parallel and series circuits with differing numbers of batteries and bulbs.	**Electrical Circuits**, Activity 1-5, Pages 13-50 Reader, Pages 4-7
10.	Recognizes sources and illustrates transmission and safe use of electricity. Describes electrical sources to include chemical (battery), mechanical (generator) and light (photoelectric cell). Constructs examples of open and closed circuits using a variety of designs. Tests materials to	**Electrical Circuits**, Activity 1-7, Pages 13-62 Reader, Pages 2-7, 11, 14

	determine conductors and nonconductors (insulators).	
11.	Measures use of household electricity, describes safe use of electricity and how electricity impacts today's life. Reads accurately a meter used to measure the electricity used by a household. Surveys home and school to investigate evidence of and suggest corrective measures for any safety hazards, such as frayed cords, overloaded outlets or circuits and electrical appliances near water. Describes what a day would be like without electricity.	**Electrical Circuits**, Activity 9, Science, Technology, and Society, Page 76 **Electrical Circuits**, Activity 11, Science, Technology, and Society, Page 88 Reader, Page 15
12.	Describes sources of sounds and how sounds move through different kinds of matter. Compares how different sounds move through air, water, rock and similar materials.	**Sound**, Activity 1-3, Pages 13-35 Reader, Pages 4-5
13.	Defines sound and identifies its properties. Observes that sound is produced by vibrations.	**Sound**, Activity 1-2, Pages 13-28 Reader, Pages 2-3
14.	Discovers that sound varies in pitch, intensity and quality. Produces sounds that vary as to: high, low or loud, soft, and produces sounds that differ in tone.	**Sound**, Activity 7-11, Pages 59-98 Reader, Pages 6-7
15.	Investigates the relationship between attributes of waves and qualities of sound. Connects attributes of waves (wavelength and frequency) to attributes of sound (pitch, intensity).	**Sound**, Activity 7, Science Challenge, Page 65 Reader, Pages 6-7
16.	Describes how we hear sounds. Describes how the outer, middle and inner ear transmit vibrations to the brain.	**Sound**, Activity 4, Pages 37-43 Reader, Pages 10-11
17.	Recognizes technological devices that produce	**Sound**, Activity 4, 6, Science, Technology, and Society, Page 43,

	sound (loudspeakers, bullhorns) or help humans hear better (hearing aid, stethoscope).	57 Reader, Pages 12-13
18.	Demonstrates how light travels and can be separated into a visible spectrum. Produces a rainbow using a prism, water or oil (refraction).	**Water Cycle**, Activity 10, Pages 85-89 **Color and Light**, Activity 1, Pages 13-18* *Note: Color and Light is a grade five module.
19. 20. 21. 22.	Investigates the characteristics of light, its movement and its action with objects. Demonstrates how to use mirrors to control direction of light (reflection). Manipulates mirrors to demonstrate and measure directions of light beams, angle of incidence and angle of reflection. Observes the refractive behavior of light using lenses (concave and convex), microscopes and telescopes. Distinguishes between transparent, translucent, and opaque. Predicts changes in shadow length and direction in relation to light source and motion (constructs a sundial or shadow stick). Investigates the relationship of light, color and heat absorption. Makes comparisons of heat absorption based on color of objects (such as clothing or construction paper). Describes the technological procedures/devices that use light. Selects a topic and uses a variety of media resources to investigate selected topics (laser, optical fiber technology, or infrared devices)	**Lenses and Mirrors**, Activity 1-9, Pages 7-74* **Solar Energy**, Activity 3, Pages 21-26* **Color and Light**, Activity 10, Science, Technology, and Society, Page 91* **Lenses and Mirrors**, Activity 7, Science, Technology, and Society, Page 54* *Note: Lenses and Mirrors and Solar Energy are grade 5 modules.

	Life Science	
23.	Describes relationships in living communities, changes that occur, and the impact of these changes. Constructs a model or diagram of a food chain/food web. Describes the impact of an interruption in the chain.	**Food Chains and Webs**, Activity 7-12, Pages 59-101 Reader, Pages 2-10 **Insect Life**, Activity 10, Pages 67-71 **Small Things and Microscopes**, Activity 13, Pages 79-84
24. 25	Identifies how matter and energy do or do not cycle in an ecosystem. Describes how matter cycles in an ecosystem (nutrients, producers, consumers and decomposers) but energy must always be added.	**Food Chains and Webs**, Activity 9, 11-12, Pages 73-79, 89-101 Activity 12, Science Extension, Page 101 Reader, Pages 6-9 **Plant and Animal Life Cycles**, Activity 12, Pages 105-113
	Discusses causes and possible solutions for pollution. Identifies types of pollution, such as air pollution, water pollution and noise pollution, and discusses how overpopulation contributes to pollution. Formulates ideas for solutions to existing pollution problems.	**Water Cycle**, Activity 12, Science, Technology, and Society, Page 106 **Looking at Liquids**, Activity 9, Science, Technology, and Society, Page 69 **Food Chains and Webs**, Activity 12, Science, Technology, and Society, Page 101
26.	Discusses the importance of recycling and identifies examples of recycled products. Identifies and collects examples of materials that can be reused or recycled and those that cannot. Shows examples of products and materials that are biodegradable and those that are nonbiodegradable.	**Water Cycle**, Activity 11, Science and Math, Page 98 Activity 11, Science, Technology, and Society, Page 98
	Earth/Space Science	
27.	Investigates how the sun's rays striking the Earth causes the seasons. Explores how the tilt of the Earth changes the angle of the sun's rays and causes the seasons.	**Weather Instruments**, Activity 6, Science Challenge, Page 57 **Solar System**, Activity 9, Science Challenge, Page 81 Reader, Page 3

28.	Demonstrates and describes the water cycle and the role of evaporation, precipitation and condensation. Examines the process of change as it relates to water in the atmosphere.	**Water Cycle**, Activity 11-13, Pages 91-114 Reader, Pages 10-11 **Weather Instruments**, Activity 11, Pages 89-96 Reader, Page 6
29.	Uses weather instruments to collect data and measure factors (such as temperature, humidity, air pressure, wind speed and direction).	**Weather Instruments**, Activity 1-5, 11, Pages 13-50, 89-96 Reader, Pages 3-5, 7-9
30.	Interprets simple weather maps and charts and makes forecasts. Identifies pressure systems, fronts and other features from maps and charts; uses this information to develop forecast.	**Weather Instruments**, Activity 12, Pages 97-101 Reader, Page 12
31.	Differentiates between weather and climate and identifies Earth's climate zones.	
32.	Discusses the effects humans have on weather and climate and vice versa. Describes the climatic effects of removal of tropical rain forest; burning of fossil fuels; seeding of clouds; use of fluorocarbons and emissions from internal combustion engines.	**Weather Instruments**, Activity 7, Science and Health, Page 66 **Water Cycle**, Activity 12, Science, Technology, and Society, Page 106
33.	Demonstrates how the position of the Earth, moon and sun causes phases of the moon. Illustrates the position of the Earth, moon, and sun during a day and a month's time, stressing phases of the moon.	**Solar System**, Reader, Page 7
34.	Compares and contrasts the Earth and other planets of our solar system. Constructs a model of the earth/moon system and the solar system. Observes a model of the solar system and describes characteristics of the sun and planets.	**Solar System**, Activity 1-2, 6, 8, Pages 13-26, 51-58, 63-72 Reader, Pages 2-13

35.	Illustrates the relative size and distance of planets in our solar systems. Constructs a scale model of the sun and its nine planets.	**Solar System**, Activity 6, 8, Pages 51-58, 63-72
36.	Compares characteristics (size, portion, composition) of celestial bodies such as stars, planets, comets, moons and meteors.	**Solar System**, Activity 6, 8, 10-11, Pages 51-58, 63-72, 88-100 Reader, Pages 2-13
37.	Uses models to relate the movement of the Earth and tilt of the axis to the seasons. Observes through a model the angle of sunlight as it relates to seasonal changes.	**Solar System**, Activity 9, Science Challenge, Page 81 Reader, Page 3 **Weather Instruments**, Activity 6, Science Challenge, Page 57
38.	Identifies different technological devices and resources that help us study the universe. Investigates how telescopes, satellites sensors and online resources help us understand our universe	**Solar System**, Activity 2, 11, Science, Technology, and Society, Page 26, 100 Reader, Page15

Subject Area: Science **State-Funded Course: Grade Five**
Textbook Title: Delta Science Modules (DSM)
Publisher: Delta Education LLC

Objective (Cite Number)	Component Strand/Course Content Standard	Where Taught (If print component, cite page number; if non-print, cite appropriate location)
1.	**Inquiry** Asks questions, makes and keeps records of observations, classifies objects and events, communicates with others, makes inferences and predictions, uses estimation and measurement, uses evidence to construct explanations, makes sketches and diagrams to explain ideas, organizes data into tables and charts for interpretation, reads and interprets various types of graphs, formulates simple hypotheses, identifies and controls a limited number of variables, and designs a simple experiment.	This standard is addressed in ALL DSM modules. See for example: **You and Your Body** Activity 3, 5, Pages 27-31, 41-48 **Color and Light** Activity 2-5, Pages 19-52 **Pollution**, Activity 10, Pages 71-76 **Solar Energy**, Activity 3-6, Pages 21-46
2.	Uses encyclopedias, science reference magazines, books and other media to obtain information related to science concepts.	This standard is addressed with DSM III Readers and DSM Connections. See for example: **Simple Machines**, Activity 12, Science and Social Studies, Page 95 **Color and Light**, Activity 3, Science, Technology, and Society, Page 35 **Oceans**, Activity 12, Science and Language Arts, Page 142
3.	Identifies and practices accepted safety procedures in manipulating science materials and equipment.	Safety is stressed in ALL DSM modules. See for example: **Flight and Rocketry**, Activity 2, Page 30 **Electromagnetism**, Activity 3, Page 28 **Rocks and Minerals**, Activity 9, Page 71
4.	Actively engages in the learning process via hands-on/minds-on science activities and experiences. Uses appropriate tools to collect	This standard is addressed in ALL DSM modules. See for example: **Simple Machines**, Activity 1-6, Pages 13-55

	and analyze data and solve problems.	**Weather Forecasting**, Activity 3-5, pages 25-48 **Fungi-Small Wonders**, Activity 11, Pages 69-74 **Lenses and Mirrors**, Activity 8, Pages 55-64
	Physical Science	
5.	Describes atomic structure of and relationship between atoms, elements, molecules and compounds. Uses models to identify electrons, protons and neutrons as basic structural components of atoms. Shows relation of atoms and elements to molecules and compounds (models, diagrams and formulas).	**Matter and Change**, Activity 4-6, Pages 29-51* Reader, Pages 2-8
6.	Investigates characteristics of length, mass, volume, density, alkalinity/acidity and temperature. Uses balance scales, thermometers, rulers, litmus paper and containers to compare characteristics of various objects	**Pollution**, Activity 8, Pages 59-64 **Solar Energy**, Activity 3-8, Pages 21-58 **You and Your Body**, Activity 5, Pages 41-48 **Matter and Change**, Activity 1-3, 10, Pages 7-28, 73-79*
7.	Recognizes that elements can be organized in a systematic way (introduction to the periodic chart).	**Matter and Change**, Activity 4, Pages 29-35* Reader, Pages 4-5 *Note: Matter and Change is a grade six module.
8.	Differentiates between and describes physical and chemical changes in matter. Identifies and demonstrates examples of physical and chemical changes.	**Matter and Change**, Activity 3, 11-13 Pages 23-28, 81-97* Reader, Pages 13-20
9.	Identifies modern material produced as the result of chemical research (plastics, polymers, kevlar, and optic fibers). Selects a topic or area to research using various media resources.	**Matter and Change**, Activity 8, Science and Social Studies, Page 64* *Note: Matter and Change is a grade six module.
10.	Differentiates between and demonstrates examples of potential and kinetic energy.	**Flight and Rocketry**, Activity 8, Pages 81-89 **Simple Machines**, Activity 5, Pages 36-47

		Reader, Page 3 **Newton's Toy Box**, Activity 8, 10, Pages 45-49, 55-58* Reader, Page 14*
11.	Explains and infers with everyday examples that objects in motion stay in motion and those at rest stay at rest. Uses common objects such as balls or rolling cars to demonstrate.	**Newton's Toy Box**, Activity 1, 7, Pages 7-11, 39-43* Reader, Pages 10-11 **Simple Machines**, Activity 1, Pages 13-18 Reader, Page 2 *Note: Newton's Toy Box is a grade six module.
12.	Explains and infers that objects at rest or in motion do not change their motion unless acted upon by an outside force. Using common objects like balls or rolling cars, infers that an outside force is necessary for a change in velocity to occur.	**Newton's Toy Box**, Activity 1, 7, Pages 7-11, 39-43* Reader, Page 12 **Simple Machines**, Activity 1, 6, Pages 13-18, 49-55
13.	Describes the relationship between movement and forces (e.g., inertia, acceleration, and velocity) quantitatively as a function of change in distance traveled over time. Picks a speed and uses it to predict the time required to travel the distance between two cities.	**Newton's Toy Box**, Activity 7-9, Pages 39-54* Reader, Pages 3-5 **Flight and Rocketry**, Activity 8, Pages 81-89
14.	Describes changes in rate of speed. Demonstrates that change in velocity is evidence that acceleration has occurred.	**Newton's Toy Box**, Activity 9, Pages 51-54* Reader, Page 5
15.	Investigates the force of gravity. Describes gravity as a force that changes depending on the distance between two objects and difference in their masses	**Newton's Toy Box**, Activity 2, Pages 13-17* Reader, Page 2 **Simple Machines**, Activity 1, Science and Math, Page 18 **Flight and Rocketry**, Reader, Page 4 *Note: Newton's Toy Box is a grade six module.
16.	Predicts, observes and records data on the rate of fall of objects. Compares the rate of fall of	**Flight and Rocketry**, Activity 2, Pages 23-32 Reader, Page 4

	objects varying in mass and discusses how air resistance affects the rate of fall.	**Newton's Toy Box**, Activity 3-4, Pages 19-29* Reader, Page 9 *Note: Newton's Toy Box is a grade six module.
	Life Science	
17.	Compares different kinds of animals and their protective adaptations. Identifies examples of animals with protective adaptations in color, physical structure and body markings and shadings, such as zebras, giraffes, Viceroy butterflies and deer.	**Pond Life**, Activity 8, Pages 57-61 **Oceans**, Activity 11-12, Pages 129-142 Reader, Pages 11-12
18.	Compares similarities and differences in animals. Groups animals using pictures or actual specimens by observable characteristics such as body covering, number of legs, wings, ears, color and size.	**Oceans**, Activity 11-12, Pages 129-142 Reader, Pages 11-12 **Dinosaurs and Fossils**, Activity 10, Pages 75-82** Reader, Pages 6-11 **Pond Life**, Activity 5-9, Pages 35-67
19.	Identifies and describes the five major kingdoms (Plants, Animals, Fungi, Protists and Monerans). Names and describes basic characteristics and examples of each kingdom.	**Fungi-Small Wonders** Activity 2, 4, Pages 13-18, 25-29 *Note: Dinosaurs and Fossils is a grade four module.
20.	Recognizes the impact of cross breeding on animal diversity. Identifies examples of characteristics that are developed through genetic manipulation (hybrid-breeds of cattle, horses, dogs and cats).	
21.	Names and describes important parts of the body and their basic functions, such as brain, heart, lungs, stomach, kidneys and sense organs.	**You and Your Body**, Activity 1-2,4, 6-8, Pages 13-25, 33-39, 49-66 Reader, Pages 4-11
22.	Identifies major body systems and their functions. Illustrates body systems that provide support and movement, transport, air/gas exchange,	**You and Your Body**, Activity 1-2, 4-7, Pages 13-25, 33-60 Reader, Pages 5-11

	excretion, immunity, reproduction and control (nervous system).	
23.	Identifies the food pyramid, its components and their importance. Classifies foods into the groups of the food pyramid.	**You and Your Body**, Activity 9-12, Pages 67-89
24.	Determines effects of technology on food and nutrition. Discusses how refrigeration, packaging, processing, advertisements and transportation technologies have influenced typical student diets.	**You and Your Body**, Activity 11, Science, Technology, and Society, Page 84
	Earth/Space Science	
25.	Discusses temperature change, chemical action and living things as important factors in the splitting and breaking down of rocks. Observes rock crevices where ice may form and act as a wedge to split rock. Observes action of vinegar on different types of rocks and observes plant roots in rock crevices.	**Erosion**, Activity 1, Pages 13-19 Reader, Pages 5-7 **Rocks and Minerals**, Activity 6, Pages 47-54
26.	Recognizes changes that occur on the Earth's surface as a result of erosion and deposition. Describes examples of erosion and describe examples of deposition.	**Erosion**, Activity 1-2, 9-12, Pages 13-27,75-104 Reader, Pages 8-13 **Earth Processes**, Activity 10, 13-14, Pages, 77-82, 95-112*
27.	Explores and discuses change in the Earth's surface due to plate tectonics. Uses maps to illustrate ring of fire, mid-Atlantic Ridge, major fault zones, etc. Describes features created by faults.	Reader, Pages 4-10 **Erosion**, Reader, Pages 2-3 *Note: Earth Processes is a grade six module.
28.	Recognizes that changes that occur on the Earth's surface (earthquakes, volcanoes and erosion) are a result of forces acting upon it. Describes examples of changes in the	**Erosion**, Activity 1-2, 5, 10-12, Pages 13-27, 43-49, 83-104 Reader, Pages 4-13

	environment that are the result of wind and water forces. Describes how the movement of molten rock affects features such as faults and volcanoes.	
29.	Recognizes that technology helps control land and water forces. Locates examples showing how technology such as dams and contour plowing helps to control land and water forces.	**Erosion**, Activity 3, Pages 29-35 Activity 6, Science Extension, Page 57 Reader, Page 14 **Oceans**, Activity 9, Science, Technology, and Society, Page 111
30.	Recognizes and describes the topography of the ocean floor.	**Oceans**, Activity 4, Pages 43-54 Reader, Pages 4-5
31.	Recognizes ocean water is in constant motion due to currents, waves and tides	**Oceans**, Activity 6-9, Pages 65-111 Reader, Page 7-10
32.	Recognizes that ocean water varies in the content of dissolved materials, its physical properties and the living things it supports.	**Oceans**, Activity 2-3, 10-12, Pages 19-37, 107-135 Reader, Pages 3, 12-13
33.	Recognizes and describes the ocean's many valuable resources, some of which may be threatened by pollution, excessive harvest and harmful mining techniques.	**Oceans**, Activity 11, Science Challenge, Page 134 Activity 9, Science, Technology, and Society, Page 111 Reader, Page 11
34.	Identifies and describes the varied technologies used to study and explore the oceans.	**Oceans**, Activity 4, Pages 43-54 Activity 10, Science, Technology, and Society, Page 124 Reader, Pages 14-15

Subject Area: Science **State-Funded Course: Grade Six**
Textbook Title: Delta Science Modules (DSM)
Publisher: Delta Education LLC

Objective (Cite Number)	Component Strand/Course Content Standard	Where Taught (If print component, cite page number; if non-print, cite appropriate location)
1.	**Physical Science** Uses process skills of observing, classifying, communicating, measuring, predicting, inferring, identifying, and manipulating variables; recording analyzing and operationally defining, formulating models, experimenting, constructing hypotheses and drawing conclusions.	This standard is addressed in ALL DSM modules. See for example: **Pollution**, Activity 10, Pages 71-76 **Solar Energy**, Activity 4-6, Pages 21-46 **If Shipwrecks Could Talk**, Activity 4, Pages 35-45 **Famous Scientists**, Activity 7, Pages 65-75 **Pond Life**, Activity 12, Pages 81-86
2.	Understands and applies laboratory safety rules and practices.	Safety is stressed in ALL DSM modules. Se for example: **Fungi-Small Wonders**, Activity 11, Page 71 **Color and Light**, Activity 5, Page 51 **Electrical Connections**, Activity 7, Page 49 **Matter and Change,** Activity 11, Page 83
3.	Defines and identifies standards of measurement.	The metric system is used in all DSM II modules in grade six.
	3.1 Names the prefixes used in the SI system.	**Measuring**, Activity 5-6, Pages 37-50* Activity 6, Science and Language Arts, Page 50*
	3.2 Identifies SI units and symbols for length, volume, mass, density, time, and temperature.	**Measuring**, Activity 5-8, Pages 37-63* Activity 10, Pages 71-77* **Matter and Change**, Activity 1-2, Pages 7-21 **Famous Scientists**, Activity 7, Pages 65-75 *Note: Measuring is a grade four module.
	3.3 Converts measurements among related SI units.	**Measuring**, Activity 5-6, Pages 37-50* **Earth, Moon, and Sun**, Activity 3-4, Pages 23-35

		*Note: Measuring is a grade four module.
	3.4 Uses appropriate tools for determining mass, volume, temperature, density, and length.	**Famous Scientists**, Activity 7, Pages 65-75 **Matter and Change**, Activity 1-2, Pages 7-21 **Simple Machines**, Activity 9, Pages 71-76
4.	Selects and uses multiple types of print and non-print sources for information on science concepts.	This standard is addressed with the DSM III Readers and the DSM Connections. See for example: **Simple Machines**, Activity 12, Science and Social Studies, Page 95 **Oceans**, Activity 12, Science and Language Arts, Page 142 **Astronomy**, Activity 9, Science and Language Arts, Page 83
5.	Explains the properties and phases of matter, using as an example the composition and properties of water.	**Matter and Change,** Reader, Pages 10-12
	5.1 Distinguishes between atoms and molecules and among elements, mixtures and compounds.	**Matter and Change**, Activity 4 and 5, Pages 29-42 Reader, Pages 2-8
	5.2 Describes the structure of elements.	**Matter and Change**, Activity 4, Pages 29-35 Reader, Pages 2-5
	5.3 Describes the periodic table of elements and uses it to find information about an element	**Matter and Change**, Activity 4, Pages 29-35 Reader, Pages 4-5
	5.4 Uses the periodic table to classify an element as a metal, nonmetal, or metalloid.	**Matter and Change**, Activity 6, Pages 43-51 Reader, Pages 4-5
	5.4 Describes atomic number and atomic mass.	**Matter and Change**, Activity 4, Pages 29-35 Reader, Pages 2-3
	5.6 Distinguishes physical and chemical properties and physical and chemical changes.	**Matter and Change**, Activity 3, 11-13, Pages 23-28, 81-97 Reader, Pages 13-20
	5.7 Recognizes and writes common chemical symbols, chemical formulas, and chemical	**Matter and Change**, Activity 5, 7, Pages 37-42, 53-57 Reader, Pages 3-8

	equations.	
6.	Analyzes the relationship of matter and energy.	
	6.1 Describes how the molecular motion changes in each phase of matter.	**Matter and Change,** Reader, Pages 11-12
	6.2 Discusses the nature of freezing, condensing, boiling, and evaporating.	**Solar Energy**, Activity 13, Pages 83-88 **Weather Forecasting**, Activity 9, Pages 69-74 **Matter and Change,** Reader, Pages 11-12
7.	Defines acid and base.	**Matter and Change**, Activity 10, Pages 73-79 Reader, Page 20 **Pollution**, Activity 8, Pages 59-64
	7.1 Describes the characteristic properties of acids and bases.	**Matter and Change**, Activity 10, Pages 73-79 Reader, Page 20
	7.2 Lists the names, formulas, and uses of some common acids and bases.	**Matter and Change**, Activity 10 and 11, Pages 73-85 Reader, Page 20
	7.3 Explain what a salt is and how salts form.	**Matter and Change**, Activity 11, Pages 81-85 Reader, Page 20
8.	Describes how energy and work are related.	**Newton's Toy Box**, Reader, Page 14 **Simple Machines**, Activity 1, Pages 13-18 Reader, Page 2-3
	8.1 Distinguishes between kinetic and potential energy.	**Newton's Toy Box**, Activity 8, 10, Pages 45-49, 55-58 Reader, Page 14 **Flight and Rocketry**, Activity 8, Pages 81-89 **Simple Machines**, Reader Page 3
	8.2 Describes different forms of energy (e.g., mechanical, electrical, chemical, radiant, nuclear, etc.).	**Electromagnetism**, Activity 6, Pages 43-48 **Electrical Connections**, Activity 11, Pages 71-76 **Solar Energy**, Activity 2, Pages 13-19 **Color and Light**, Activity 1, Pages 13-18

	8.3 Describes how energy and power are related.	Reader, Pages 2-3, 8-9
9.	Defines speed as a rate.	**Newton's Toy Box**, Activity 7-9, Pages 39-54 Reader, Pages 2-3
	9.1 Performs calculations involving speed, time, and distance to interpret distance-time graphs.	**Newton's Toy Box**, Activity 7-9, Pages 39-54 Reader, Page 3
	9.2 Compares and contrasts speed, velocity, and acceleration.	**Newton's Toy Box**, Activity 7-9, Pages 39-54 Reader, Pages 2-5
	9.3 Recognizes different examples of forces.	**Simple Machines**, Activity 1, Pages 13-18 Reader, Pages 2-9 **Flight and Rocketry**, Activity 8, Pages 81-89 **Newton's Toy Box**, Activity 1, pages 7-11 Reader, Pages 4-8
	9.4 States and describes Newton's three laws of motion.	**Newton's Toy Box**, Activity 1, 3, 7, Pages 7-11, 19-24, 39-43 Reader, Pages 10-13
	9.5 Gives examples of the effects of gravity.	**Newton's Toy Box**, Activity 2 and 3, Pages 13-24 Reader, Page 8 **Famous Scientists**, Activity 3, Pages 29-34 **Flight and Rocketry**, Activity 2, Pages 23-32 Reader, Page 4 **Simple Machines**, Reader, Page 2
	9.6 Relates gravitational force to mass and distance.	**Newton's Toy Box**, Activity 3, pages 19-24 Reader, Page 8 **Famous Scientists**, Activity 3, Pages 29-34
	9.7 Distinguishes between mass and weight.	**Newton's Toy Box**, Activity 3, Pages 19-24 Reader, Page 8

	9.8 Evaluates the advantages and disadvantages of passenger restraint devices as related to force and motion.	
10.	Explains the relationship among force, motion and acceleration.	**Famous Scientists**, Activity 3, Pages 29-34 **Newton's Toy Box**, Activity 3, 9, Pages 19-24, 51-54 Reader, Pages 4-5
	10.1 Explains why objects thrown or shot follow a curved path.	**Newton's Toy Box**, Activity 5-6, Pages 31-38 Reader, Page 23
	10.2 Compares motion in a straight line with circular motion.	**Newton's Toy Box**, Activity 5, Science Extension, Page 34 Activity 5, Science and Math, Page 34 Reader, Page 23
	10.3 Defines weightlessness.	**Newton's Toy Box**, Activity 3, Pages 19-24 Reader, Page 23
	10.4 Analyzes action and reaction forces.	**Newton's Toy Box**, Activity 11-13, Pages 59-70 Reader, Page 13
	10.5 Explains conservation of momentum.	**Newton's Toy Box**, Activity 13, Pages 67-70 Reader, Page 9
11.	Describes how particles of a fluid exert pressure.	**Matter and Change**, Activity 2, Pages 15-20 **Flight and Rocketry**, Activity 9, Pages 91-97
	11.1 States Archimedes' principle.	**Famous Scientists**, Activity 1, Pages 11-19 **Matter and Change**, Activity 1, Science Challenge, Page 13
	11.2 States Bernoulli's principle and describes a way Bernoulli's principle is applied.	**Flight and Rocketry**, Activity 6 and 7, Pages 65-80 Reader, Page 3
	11.3 Explains how a hydraulic device operates.	
12.	Explains how machines make work easier.	**Simple Machines**, Activity 2, 5, 8-12, Pages 19-24, 39-47, 65-89

		Reader, Pages 4-12 **Newton's Toy Box**, Reader, Pages 15-21
	12.1 Describes six types of simple machines.	**Simple Machines**, Activity 2, 5, 8-11, Pages 19-24, 39-47, 65-89 Reader, Pages 4-9 **Newton's Toy Box**, Reader, Pages 16-21
	12.2 Recognizes the simple machines that make up a compound machine.	**Simple Machines**, Activity 12, Science Challenge, Page 95 Reader, Pages 10-11 **Newton's Toy Box**, Reader, Page 21
	12.3 Describes the relationship between work, power, and time.	**Newton's Toy Box**, Reader, Page 14
	12.4 Explains what the science of bionics involves.	
	12.5 Contrasts two methods of using electrical signals to trigger motion of a limb or other body processes.	
13.	Explains how satellites are placed in orbit around the earth.	**Newton's Toy Box**, Activity 5, Science Extension, Page 34
	13.1 Gives examples of how satellites are used to improve the overall quality of life.	**Astronomy**, Activity 3, Science, Technology, and Society, Page 34 **Earth, Moon, and Sun**, Activity 13, Science, Technology, and Society, Page 112
14.	Investigates the characteristics, movements, and measurements of heat energy.	**Solar Energy**, Activity 2, Pages 13-18 **Earth Processes**, Activity 12, Science Challenge, Page 93
	14.1 Demonstrates the difference between heat and temperature.	**Solar Energy**, Activity 2, Pages 13-18
	14.2 Shows how heat causes matter to expand and contract.	**Solar Energy**, Activity 13, Pages 83-88 **Erosion**, Activity 1, Pages 13-19

	14.3 Explains how heat is transferred by conduction, convection, and radiation. 14.4 Identifies some causes and effects of thermal pollutions. 14.5 Discusses some possible solutions for thermal pollution problems.	**Earth Processes**, Activity 12, Science Challenge, Page 93 **Solar Energy**, Activity 2, Pages 13-18 **Pollution**, Reader, Page 9
15.	Describes how waves carry energy. 15.1 Discusses the characteristics and properties of waves. 15.2 Explains how wavelength, frequency, and speed are related. 15.3 Compares transverse and compressional waves. 15.4 Describes how waves are refracted and reflected.	**Oceans**, Activity 6, Science Challenge, Page 73 Reader, Page 7 **Oceans**, Activity 6, Pages 65-73 Reader, Page 7 **Color and Light**, Activity 1, Science Challenge, Page 18 Reader, Page 8 **Oceans**, Activity 6, Reinforcement, Page 72 Activity 6, Science and Math, Page 73 **Oceans**, Activity 6, Reinforcement, Page 72 Activity 6, Science and Math, Page 73 **Lenses and Mirrors**, Activity 1, 8, Pages 7-12, 55-65 **Color and Lights**, Reader, Pages 4-6
16.	Contrasts electromagnetic waves and other kinds of waves (e.g., sound, water). 16.1 Describes the electromagnetic spectrum.	**Oceans**, Activity 6, Pages 65-73 Reader, Page 7 **Color and Light**, Activity 1, Science, Technology, and Society, Page 18 Reader, Pages 8-9 **Color and Light**, Activity 1, Pages 13-18 Activity 1, Science, Technology, and Society, Page 18 Reader, Pages 8-9

	16.2 Explains at least one application of each type of electromagnetic wave.	**Electrical Connections**, Activity 8, Science and Health, Page 58 **Color and Light**, Activity 1, Science, Technology, and Society, Page 18 Reader, Page 9
17.	States and give an example of the law of reflection.	**Lenses and Mirrors**, Activity 1, Pages 7-12 **Color and Lights**, Reader, Page 4
	17.1 Explains how refraction is used to separate light into the colors of the spectrum.	**Color and Light**, Activity 1, Pages 13-18 Reader, Page 8
	17.2 Describes how diffraction and interference patterns demonstrate wave behavior.	**Color and Light**, Activity 1, Science Challenge, Page 18
18.	Investigates the relationship between light and color.	**Color and Light**, Activity 1-2, 4, Pages 13-27, 37-43 Reader, Pages 11-13
	18.1 Describes the differences among opaque, transparent, and translucent materials.	**Color and Light**, Activity 4, Science Challenge, Page 43 Reader, Page 7
	18.2 Explains how you see color.	**You and Your Body**, Reader, Pages 10-11 **Color and Light**, Activity 2, Pages 19-27
	18.3 Describes the difference between light color and pigment color.	**Color and Light**, Activity 1-2, 4, Pages 13-27, 37-43 Reader, Pages 11-13
19.	Discusses how light interacts with mirrors and lenses to produce images.	**Lenses and Mirrors**, Activity 1, 6-8, Pages 7-12, 41-65
	19.1 Explains how images are formed in mirrors.	**Lenses and Mirrors**, Activity 1, 9, Pages 7-12, 67-74
	19.2 Identifies uses of plane, concave, and convex mirrors.	**Lenses and Mirrors**, Activity 1, 7 Pages 7-12, 47-54
	19.3 Describes the types of images formed with convex and concave lenses.	**Lenses and Mirrors**, Activity 8-9, Pages 55-74

	19.4 Compares refracting and reflecting telescopes.	**Lenses and Mirrors**, Activity 7, Science, Technology, and Society, Page 54 Activity 9, Science, Technology, and Society, Page 74
	19.5 Discusses the technological advances in the use of light (e.g., fiber optics, lasers, cameras, microscopes, etc.)	**Lenses and Mirrors**, Activity 9, Science, Technology, and Society, Page 74 **Color and Light**, Activity 11, Science, and Social Studies, Page 100
20.	Lists the characteristics of electricity.	**Electromagnetism**, Activity 5, Pages 37-42 Reader, Pages 2-5 **Electrical Connections**, Activity 1 and 2, Pages 7-18
	20.1 Describes how static and current electricity differ.	**Electrical Connections**, Activity 1-2, Pages 7-18
	20.2 Describes the relationship between electrical current and circuits.	**Electrical Connections**, Activity 2-3, Pages 13-24
	20.3 Explains how a dry cell is a source of electricity.	**Electrical Connections**, Activity 2, Pages 13-18 Activity 2, Science and the Arts, Page 18
	20.4 Describes, sketches and lists applications for a series and parallel circuit.	**Electrical Connections**, Activity 6, 9-10, Pages 37-43, 59-70
	20.5 Distinguishes between conductors and insulators.	**Electrical Connections**, Activity 2, Science Extension, Pages 18
	20.6 Identifies the function of circuit breakers and fuses.	**Electrical Connections**, Activity 5, Science, Technology, and Society, Page 36
	20.7 Calculates the amount of electrical energy in kilowatt-hours.	**Electrical Connections**, Activity 5, Science and Math, Page 36
	20.8 Explains the occurrence of lightning in terms of induction and static discharge.	**Electrical Connections**, Activity 1, Science and Social Studies, Page 12

	20.9 Evaluates the positive and negative aspect of lightning induced forest fires.	
	20.10 Identifies safety measures when dealing with electricity and lightning.	**Weather Forecasting**, Activity 12, Science and Health, Page 93 **Electrical Connections**, Activity 1, Science and Social Studies, Page 12
21.	Describes the properties of magnets.	**Electromagnetism**, Activity 1, Pages 13-17 Reader, Pages 6-7
	21.1 Defines magnetic field.	**Electromagnetism**, Activity 2, Pages 19-23 Reader, Pages 6-7
	21.2 Explains the magnetic effects of a current in a wire.	**Electromagnetism**, Activity 5, Pages 37-42 Reader, Pages 8-9
	21.3 Compares and contrasts voltmeters and ammeters.	
	21.4 Describes the function of an electric motor.	**Electrical Connections**, Activity 9-10, Pages 51-63 **Electromagnetism**, Reader, Page 13
	21.5 Describes how a generator produces electric current.	**Electromagnetism**, Reader, Pages 10-12
	21.6 Distinguishes between alternating and direct current.	
	21.7 Explains the function of step up and step down transformers.	**Electrical Connections**, Activity 10, Science, Technology, and Society, Page 70 **Electromagnetism**, Activity 9, Science, Technology, and Society, Page 68
	21.8 Describes the characteristics and applications of super conductors.	
	21.9 Describes the use of magnetic resonance	**Electromagnetism**, Activity 2, Science, Technology, and

	imaging (MRI) in medicine.	Society, Page 23
22.	Describes sound as a form of energy produced by vibrations.	**Sound**, Activity 2, Pages 21-28* Reader, Pages 2-3
	22.1 Lists the characteristics of waves.	**Sound**, Activity 3, Science Challenge, Page 35* Reader, Pages 2-3, 6-7 **Oceans**, Activity 6, Pages 61-69 Reader, Page 7 **Color and Light**, Activity 6, Science and Math, Page 69
	22.2 Discusses the relationship between frequency and wavelength.	**Sound**, Activity 8, Science Challenge, Page 72* Reader, Page 7 **Oceans**, Activity 6, Reinforcement, Page 68 Activity 6, Science and Math, Page 69
	22.3 Compares and contrasts transverse and compressional waves	**Sound**, Activity 3, Science Challenge, Page 35* Reader, Pages 2-3, 6-7
23.	Describes the transmission of sound through a medium.	**Sound**, Activity 2, Pages 21-28* Activity 2, Science Extension, Page 28* Reader, Pages 4-5
	23.1 Identifies the relationships between intensity and loudness, and frequency and pitch.	**Sound**, Activity 8-11, Pages 67-98* Reader, Pages 6-7
	23.2 Illustrates the Doppler effect.	**Sound**, Activity 8, Science Challenge, Page 72* *Note: Sound is a grade four module.
24.	Distinguishes between music and noise.	**Sound**, Activity 6, Science and Language Arts, Page 57*
	24.1 Describes why instruments produce sounds of different quality.	**Sound**, Activity 6, Pages 51-57* Reader, Pages 12-13
	24.2 Explains two types of wave interference.	
25.	Explains how sound waves are used to create	**Sound**, Activity 5, Science and Health, Page 50*

	images of body organs. 25.1 Describes the uses of ultrasound technology in medicine.	*Note: Sound is a grade four module. **Sound**, Activity 5, Science and Health, Page 50* *Note: Sound is a grade four module.
26.	Recognizes the major energy sources people use today to meet their energy needs. 26.2 Identifies ways energy can be conserved.	**Solar Energy**, Activity 9, Science Extension, Page 64 **Rocks and Minerals**, Activity 12, Science, Technology, and Society, Page 98 Activity 10, Science and Social Studies, Page 84 Reader, Page 11 **Oceans**, Activity 9, Science, Technology, and Society, Page 111 **Electrical Connections**, Activity 9, Science, Technology, and Society, Page 64 **Solar Energy**, Activity 9, Science Extension, Page 64
	26.3 Compares and contrasts alternative energy sources. 26.4 Identifies models that demonstrate how wind, sun, water, geothermal energy and waves can be used as alternative energy sources. 26.5 Discusses problems associated with storing and disposal of nuclear waste.	**Oceans**, Activity 9, Science, Technology, and Society, Page 111 **Solar Energy**, Activity 9-10, Pages 59-70 Activity 13, Science, Technology, and Society, Page 88 **Pollution**, Reader, Page 15 **Oceans**, Activity 9, Science, Technology, and Society, Page 111 **Solar Energy**, Activity 9-10, Pages 59-70 Activity 13, Science, Technology, and Society, Page 88 **Pollution**, Reader, Page 15

Subject Area: Science **State-Funded Course: Grade Seven**
Textbook Title: Delta Science Modules (DSM)
Publisher: Delta Education LLC

Objective (Cite Number)	Component Strand/Course Content Standard	Where Taught (If print component, cite page number; if non-print, cite appropriate location)
1.	Uses process skills of observing, classifying, communicating, measuring, predicting, inferring, identifying, and manipulating variables. Also uses recording, analyzing, and operationally defining, formulating models, experimenting, constructing hypotheses and drawing conclusions.	This standard is addressed in ALL DSM modules. See for example: **If Shipwrecks Could Talk**, Activity 4, Pages 35-45 **Famous Scientists**, Activity 7, Pages 65-75 **Matter and Change**, Activity 12, Pages 87-92 **Earth Processes**, Activity 12, Pages 89-93
2.	Understands and applies laboratory safety rules and practices.	Safety is stressed in ALL DSM modules. See for example: **Electrical Connections**, Activity 7, Page 49 **Matter and Change**, Activity 11, Page 83 **Astronomy**, Activity 9, Page 81
3.	Defines and identifies standards of measurement.	The metric system is used in all DSM II modules in grade seven.
	3.1 Names the prefixes used in the SI system.	**Matter and Change**, Activity 1 and 2, Pages 7-21 **Earth, Moon, and Sun**, Activity 3 and 4, Pages 23-34
	3.2 Identifies SI units and symbols for length, volume, mass, density, time, and temperature.	**Chemical Interactions**, Activity 1 and 2, Pages 7-21 **Earth, Moon, and Sun**, Activity 3 and 4, Pages 23-34
	3.3 Converts measurements among related SI units.	**Earth, Moon, and Sun**, Activity 3, Pages 23-28
	3.4 Uses appropriate tools for determining mass volume, temperature, density, and length.	**Matter and Change**, Activity 1 and 2, Pages 7-21 **Famous Scientists**, Activity 1, Pages 11-19
4.	Selects and uses multiple types of print and non-	This standard is addressed with DSM Readers and DSM

	print sources for information on science concepts.	Connections. See for example: **Astronomy**, Activity 9, Science and Language Arts, Page 83 **Earth Processes**, Activity 9, Science and Social Studies, Page 75 **Plants in Our World**, Activity 12, Science and Social Studies, Page 81
5.	Identifies the role elements, atoms, and molecules play in cell development and functions.	**DNA-From Genes to Proteins**, Activity 6, Pages 37-44
6.	Identifies the cell as a basic unit of life.	**You and Your Body**, Reader, Page 2* **DNA-From Genes to Proteins**, Activity 3-4, Pages 19-29 **Plants in Our World**, Activity 1, Pages 7-12 *Note: You and Your Body is a grade six module.
	6.1 Describes the structure and functions of major components and organelles to include nucleus, nuclear membranes, cytoplasm, cell membrane, chromosomes, vacuoles, golgi bodies, lysosomes, endoplasmic reticulum (rough and smooth) and mitochondria.	**You and Your Body**, Reader, Page 2* **DNA-From Genes to Proteins**, Activity 3 and 4, Pages 19-29 **Plants in Our World**, Activity 1, Pages 7-12
	6.2 Compares and contrasts the major structures and functions of typical plant and animal cells.	**You and Your Body**, Reader, Page 2* **Plants in Our World**, Activity 1, Pages 7-12
	6.3 Discusses and illustrates the organization of cells into tissues, organs, and systems.	**You and Your Body**, Reader, Page 3* **Plants in Our World**, Activity 2, Pages 13-18
	6.4 Describes and discusses the movement of materials into and out of the cell for the maintenance of homeostasis.	*Note: You and Your Body is a grade six module.
	6.5 Describes the process of mitosis and meiosis.	**DNA-From Genes to Proteins**, Activity 5, Science Extension, Page 35

	6.6 Outlines the events that occur in meiosis and mitosis.	**DNA-From Genes to Proteins**, Activity 5, Science Extension, Page 35
7.	Identifies organs and their functions in these systems: circulatory, respiratory, reproductive, skeletal, digestive, nervous, endocrine lymphatic, and skin.	**You and Your Body**, Activity 1-2, 4, 6-7, Pages 13-25, 33-39, 49-60**,** Reader, Pages 4-11*
	7.1 Explains and describes the features and functions of the various organ systems.	**You and Your Body**, Activity 1-2, 4, 6-7, Pages 13-25, 33-39, 49-60, Reader, Pages 4-11*
	7.2 Describes and investigates body functions and make inferences regarding these functions, e.g., heartbeat, sensory perception, lung volume, and reaction time.	**You and Your Body**, Activity 3, 5, 13-14, Pages 27-31, 41-48, 91-102*
	7.3 Discusses and illustrates the organization of cells into tissues, organs, and systems.	**You and Your Body**, Reader, Page 3* **Plants in Our World**, Activity 2, Pages 13-18
	7.4 Classifies groups of cells as tissues, organs, or systems using observation and/or description.	**You and Your Body**, Reader, Page 3* **Plants in Our World**, Activity 2, Pages 13-18 *Note: You and Your Body is a grade six module.
8.	Defines infectious diseases and how they affect the immune system.	
	8.1 Describes the body's lines of defense against infectious diseases.	
9.	Examines how health care technology has improved the quality of life, (e.g., computerized tomography (C.T.), artificial organs, bionics, Magnetic Resonance Imaging (MRI), and ultrasound).	**DNA-From Genes to Proteins**, Activity 13, Science, Technology, and Society, Page 84

	9.1 Examines how improvements in health care practices have decreased infectious diseases (i.e. sanitation, milk pasteurization, aseptic surgical techniques, etc.	
10.	Describes the structure of a chromosome, DNA replication, and how genes interact to determine the traits of an organism.	**DNA-From Genes to Proteins**, Activity 6-9, Pages 37-68
11.	Explains how principles of heredity apply to inherited traits	**DNA-From Genes to Proteins**, Activity 3, Science Challenge, Page 23 Activity 3, Science Extension, Page 23
	11.1 Identifies dominant and recessive traits (genotype and phenotype).	**DNA-From Genes to Proteins**, Activity 3, Science Challenge, Page 23 Activity 3, Science Extension, Page 23
	11.2 Predicts the results of genetic crosses using a Punnet Square.	**DNA-From Genes to Proteins**, Activity 3, Science Extension, Page 23
	11.3 Describes how human traits are determined, (e.g., blood types, inherited diseases, sex-linked traits, and non-disjunction).	**DNA-From Genes to Proteins**, Activity 3, Science Extension, Page 23
	11.4 Describes common genetic disorders and how they can be inherited.	**DNA-From Genes to Proteins**, Activity 7, Science and Health, Page 51
12.	Describes various advances within the fields of agriculture, animal husbandry and medicine due to Applied Genetics (STS).	**DNA-From Genes to Proteins**, Activity 12, Science Challenge, Page 87 Activity 13, Science, Technology, and Society, Pages 94
13.	Explains the method scientists use to classify living things for the purpose of communication and study.	**Plants in Our World**, Activity 1, Science Challenge, Page 12
	13.1 Explains how living organisms can be classified according to similarities in structure,	

	behavior, food needs and chemical make up into kingdoms, phyla, classes, orders, families, genera, and species.	
14.	Describes the major characteristics of the five kingdoms (Monerans, Protists, Fungi, Plants, and Animals). 14.1 Classifies common organisms into kingdoms based on similarities of characteristics.	
15.	Identifies the characteristics and structure of Monerans, Protists and Fungi. 15.1 Lists harmful and beneficial effects of the organisms in these three kingdoms.	**DNA-From Genes to Proteins**, Activity 11, Pages 75-79 **DNA-From Genes to Proteins**, Activity 11, Pages 75-79
16.	Identifies the characteristics and structure of nonvascular, plants, (e.g., mosses, liverworts, and hornworts).	
	16.1 Identifies the characteristics and structure of vascular plants, e.g., ferns and seed plants (gymnosperm vs. angiosperms).	**Plants in Our World**, Activity 2, Pages 13-18
17.	Describes and compares various life processes of plants: asexual and sexual reproduction, photosynthesis, cellular respiration, growth and response to environmental stimuli.	**Plants in Our World**, Activity 4-6, 8-10, Pages 25-41, 51-68
18.	Describes the characteristics of invertebrate animals. e.g. poriferans, colenterates, segmented worms, mollusks, echinoderms, and arthropods 18.1 Sorts and classifies invertebrates into groups according to life conditions, methods of obtaining food, methods of reproduction, and	

	behavior. 18.2 Describes the characteristics of vertebrates within the Chordata phylum to include jawless fishes, cartilaginous fishes, bony fishes amphibians, reptiles, birds, and mammals.	
    19. 20.	18.3 Sorts members of the Chordata phylum into classes by observation of characteristics, (e.g., life conditions, method s of obtaining food, methods of reproduction, and behavior). Explains the food web/food chain cycles in nature that affect living things. Describes the characteristics of major biomes. 20.1 Describes the location of major biomes. 20.2 Describes the climate and other abiotic factors of major biomes. 20.3 Describes the organisms found within biomes.	
21.	Describes the ability of organisms to change as necessity for species survival. 21.1 Defines and gives examples of adaptation for survival of the species.	**Plants in Our World**, Activity 1, Science Challenge, Page 12 **DNA-From Genes to Proteins**, Activity 2, Science Challenge, Page 18

Subject Area: Science **State-Funded Course: Grade Eight**
Textbook Title: Delta Science Modules (DSM)
Publisher: Delta Education LLC

Objective (Cite Number)	Component Strand/Course Content Standard	Where Taught (If print component, cite page number; if non-print, cite appropriate location)
1.	Uses process skills of observing, classifying, communicating, measuring, predicting, inferring, identifying, and manipulating variables. Also uses skills of recording, analyzing and operationally defining, formulating models, experimenting, constructing hypotheses and drawing conclusions.	This standard is addressed in ALL DSM modules. See for example: **If Shipwrecks Could Talk**, Activity 4, Pages 35-45 **Famous Scientists**, Activity 7, Pages 65-75 **Matter and Change**, Activity 12, Pages 87-92 **Earth Processes**, Activity 12, Pages 89-93
2.	Understands and applies laboratory safety rules and practices.	Safety is stressed in ALL DSM modules. See for example: **Electrical Connections**, Activity 7, Page 49 **Matter and Change**, Activity 11, Page 83 **Astronomy**, Activity 9, Page 81
3.	Defines and identifies standards of measurement.	The metric system is used in all DSM II modules in grade eight.
	3.1 Names the prefixes used in the SI system.	**Matter and Change**, Activity 1 and 2, Pages 7-21 **Earth, Moon, and Sun**, Activity 3 and 4, Pages 23-34
	3.2 Identifies SI units and symbols for length, volume, mass, density, time, and temperature.	**Matter and Change**, Activity 1 and 2, Pages 7-21 **Earth, Moon, and Sun**, Activity 3 and 4, Pages 23-34
	3.3 Converts measurements among related SI units.	**Earth, Moon, and Sun**, Activity 3, Pages 23-28
	3.4 Uses appropriate tools for determining mass volume, temperature, density, and length.	**Matter and Change**, Activity 1 and 2, Pages 7-21 **Famous Scientists**, Activity 1, Pages 11-19
4.	Selects and uses multiple types of print and non-	This standard is addressed with DSM Readers and DSM

	print sources for information on science concepts.	Connections. See for example: **Astronomy**, Activity 9, Science and Language Arts, Page 83 **Earth Processes**, Activity 9, Science and Social Studies, Page 75 **Plants in Our World**, Activity 12, Science and Social Studies, Page 81
5.	Recognizes the effects human beings have on pollution and the environment.	**Famous Scientists**, Activity 10, Science and Health, Page 103 **Pollution**, Activity 1-6, 9-12, Pages 13-52, 65-88* Reader, Pages 2-14* *Note: Pollution is a grade six module.
	5.1 Identifies ways human beings cause and can correct pollution of water bodies, the atmosphere (acid rain, ozone layer, and greenhouse effect) and the land (soil pollution, and chemical/nuclear waste).	**Pollution**, Activity 1-6, 9-12, Pages 13-52, 65-88* Reader, Pages 2-14
	5.2 Examines the effects pollution from cities have on weather and the effect of burning fuels on the atmosphere, melting of polar ice caps, and predicting earthquakes.	**Pollution**, Activity 10, Pages 71-76* Reader, Pages 6-8* *Note: Pollution is a grade six module.
6.	Differentiates among elements, compounds and mixtures.	**Matter and Change**, Activity 3-6, Pages 23-51 Reader, Pages 4-8
	6.1 Describes the organization or the modern periodic table.	**Matter and Change**, Activity 4, Pages 29-35 Reader, Pages 4-5
	6.2 Recognizes common chemical symbols and chemical formulas.	**Matter and Change**, Activity 4-7, Pages 29-58 Reader, Pages 3-8
	6.3 Recognizes crystal systems of minerals.	**Rocks and Minerals**, Activity 7-8, Pages 55-67* Reader, Page 3*
	6.4 Defines an ion and describe its role in	**Matter and Change**, Activity 6, Pages 43-51

	chemical bonding (e.g., ionic and covalent bonding).	Reader, pages 6-8
7.	Identifies minerals by physical properties such as hardness, shape, color, luster, streak, cleavage and fracture.	**Rocks and Minerals**, Activity 3-7, Pages 29-59* Reader, Pages 2-6*
	7.1 Uses standard mineral identification tests to identify minerals and their characteristics from unnamed samples.	**Rocks and Minerals**, Activity 3-7, Pages 29-59* Reader, Pages 2-6*
8.	Differentiates among rocks based on origins (igneous, metamorphic, and sedimentary) and mineral content.	**Rocks and Minerals**, Activity 9-10, Pages 69-84* Reader, Pages 9-13 **Earth Processes**, Activity 4-6, Pages 31-53 Reader, Pages 10-18
9.	Recognizes that constructive and destructive Earth forces (e.g., continental drift, earthquakes, volcanoes, plate tectonics, weathering, and erosion) change the Earth's surface.	**Earth Processes**, Activity 3, 5-8, 14, Pages 21-29, 39-68, 105-112 Reader, Pages 4-15 *Note: Rocks and Minerals is a grade six module.
10.	Recognizes major symbols, series, scales and colors conventionally used to represent features on topographic maps and various earth models.	
11.	Examines how land formations influence development of an area	**Earth Processes**, Reader, Page 20
	11.1 Relates the topography of land, climate and resources to economic development.	**Earth Processes**, Reader, Page 20
12.	Recognizes the use of alternate energy sources.	**Pollution**, Reader, Page 15* **Oceans**, Activity 9, Science, Technology, and Society, Page 111* **Solar Energy**, Activity 8, Science, Technology, and Society, Page 58*

		Activity 13, Science, Technology and Society, Page 88
	12.1 Identifies examples of solar energy being used (solar heating in buildings, solar cells in calculators and solar battery automobiles).	**Solar Energy**, Activity10, pages 65-70* Activity 7, Science, Technology and Society, Page 52 Activity 8, Science, Technology, and Society, Page 58 Activity 13, Science, Technology and Society, Page 88
	12.2 Identifies other alternative energy sources (geothermal, wind, nuclear, synthetic fuels and biomass fuels).	**Pollution**, Reader, Page 15* **Oceans**, Activity 9, Science, Technology, and Society, Page 111*
		*Note: Pollution, Solar Energy, and Oceans are grade six modules.
13.	Describes Earth history and recognizes that change occurs constantly and slowly over time.	**Earth Processes**, Reader, Page 22
	13.1 Describes the process of radio carbon dating.	**Earth Processes**, Reader, Page 22
	13.2 Distinguishes between relative and absolute time.	**Earth Processes**, Reader, Page 22
14.	Interprets the geology of Earth based on the principle of uniformitarianism and the principles of superposition.	
15.	Illustrates and describes the Earth's composition (crust, mantle, and core).	**Earth Processes**, Activity 2, Pages 15-20 Reader, Page 5-6
16.	Describes the water cycle and its relationship to the movement of surface and subsurface water.	**Oceans**, Activity 5, Pages 55-63*
		*Note: Oceans is a grade six module.
	16.1 Identifies parts of the water cycle.	**Oceans**, Activity 5, Pages 55-63*
	16.2 Describes the formation of a river system.	**Earth Processes**, Reader, Page 11
	16.3 Describes the distribution and quality of	**Oceans**, Activity 1, Pages 13-21*

	fresh water on the Earth.	Reader, Page 2
17.	Describes the characteristics, composition and movement of the oceans.	**Oceans**, Activity 1-3, 6-9 Pages 13-41, 65-111* Reader, Pages 2-9
	17.1 Recognizes the chemical and physical composition of ocean water.	**Oceans**, Activity 2-3, Pages 23-41 Reader, Page 3*
	17.2 Describes the features of the ocean floor.	**Oceans**, Activity 4, Pages 43-54* Reader, Pages 4-5 **Earth Processes**, Activity 13, Pages 95-103 Reader, Pages 6-7
	17.3 Discusses the movements of ocean water in currents, tides and waves.	**Oceans**, Activity 6-9, Pages 65-111 Reader, Pages 7-10
	17.4 Identifies the three groups of ocean life	**Oceans**, Activity 11-12, Pages 125-142 Reader, Pages 12-13 *Note: Oceans is a grade six module.
	17.5 Describes the relationships among ocean organisms	**Oceans**, Reader, Pages 12-13* **Famous Scientists**, Activity 9, Pages 85-93 *Note: Oceans is a grade six module.
18.	Describes the composition and structure of Earth's atmosphere.	**Weather Forecasting**, Reader, Page 2*
	18.1 Identifies the layers of the earth's atmosphere.	**Weather Forecasting**, Reader, Page 2*
	18.2 Describes the importance of each layer of the Earth's atmosphere.	
	18.3 Lists the most abundant gases in the Earth's atmosphere.	

19.	Recognizes and investigates weather phenomena and their effect on the Earth's surface. 19.1 Interprets weather maps and makes forecasts.	**Weather Forecasting**, Activity, 3-5, 10, Pages 25-48, 75-80* Reader, Pages 6-7* **Weather Forecasting**, Activity, 6, Pages 49-54* Reader, Page 6 *Note: Weather Forecasting is a grade six module.
20.	Describes atmospheric factors which interact to cause weather: heat energy, air pressure, winds, and moisture. 20.1 Identifies the three basic types of clouds and their formation. 20.2 Compares the four major types of air masses and how they create fronts that affect weather patterns. 20.3 Identifies factors that determine climate. 20.4 Differentiates between the climate zones of the Earth 20.5 Defines and gives examples of microclimates.	**Weather Forecasting**, Activity, 3-5, 10, Pages 25-48, 75-80* Reader, Pages 6-7 **Weather Forecasting**, Activity, 10, Pages 75-90* Reader, Page 7 **Weather Forecasting**, Activity, 7, Pages 55-61* Reader, Page 6 **Weather Forecasting**, Reader, Page 6* **Oceans,** Reader, Page 10 *Note: Weather Forecasting and Oceans are grade six modules.
21.	Describes the components of the solar system. 21.1 Describes features, characteristics and motions of the planets. 21.2 Compares and contrasts asteroids, comets	**Earth, Moon, and Sun**, Activity 1-5, Pages 7-44 Reader, pages 2-7, 13-15, 21-23 **Astronomy**, Activity 6, Pages 53-60 **Earth, Moon, and Sun**, Activity 3 and 4, Pages 23-36 Reader, Pages 21-23 **Astronomy**, Activity 6, Pages 53-60 **Earth, Moon and Sun**, Reader, Page 3

	and meteorites and explain their origins.	
22.	Identifies and describes stars and star systems.	**Astronomy**, Activity 1, 10-11, Pages 7-16, 85-99
	22.1 Describes major galaxy types.	**Astronomy**, Activity 11, Pages 93-99 **Earth, Moon and Sun**, Reader, Page 3
	22.2 Describes the life cycle of a star.	**Astronomy**, Activity 10, Pages 85-91
	22.3 Interprets a Hertzsprung-Russell diagram.	
23.	Compares and contrasts theories on the origin of the universe.	
	23.1 Discusses geocentric and heliocentric models of the solar system.	
24.	Describes how information is obtained about space.	**Astronomy**, Activity 6, Science, Technology, and Society, Page 60 Activity 9, Science, Technology, and Society, Page 83
	24.1 Identifies the use of probes, satellites, light and radio telescopes and spectroscopes to gather information about space.	**Astronomy**, Activity 6, Science, Technology, and Society, Page 60 Activity 9, Science, Technology, and Society, Page 83
25.	Describes the history of the space program and examines its effects on our lives.	
26.	Describes the relationships of the motions between the sun, moon and Earth.	**Astronomy**, Activity 5, Pages 43-51 **Earth, Moon, and Sun**, Activity 5, 9-10, Pages 37-43, 69-89 Reader, Pages 8-12, 14-19
	26.1 Describes how seasons are caused by the Earth's revolution.	**Astronomy**, Activity 6, Science, Technology, and Society, Page 60 **Earth, Moon, and Sun**, Activity 9, Pages 69-78 Reader, Pages 11-12

	26.2 Defines the phases of the moon.	**Earth, Moon, and Sun**, Activity 10, Pages 79-86 Reader, pages 14-15
	26.3 Compares and contrasts a lunar and solar eclipse. 26.4 Discusses the effect of the sun and moon on tides.	**Earth, Moon, and Sun**, Activity 11, Pages 87-93 Reader, Page 18-19 **Earth, Moon, and Sun**, Activity 12, Pages 95-103 Reader, Pages 16-17