DSM II™

DELTA SCIENCE MODULES II

CORRELATION TO

McGraw-Hill Science

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McGraw-Hill Science
Grade One

SCIENCE PROCESS SKILLS

The Delta Science Modules II Program is inquiry based. The fundamentals of scientific inquiry are embedded in all modules and opportunities for guided and independent inquiry are provided. Examples of activities and investigations that emphasize a skill are listed. A citation does not reflect all of the investigations or activities from the program that might address a particular skill.

SCIENCE PROCESS SKILL	*DSM II*
Observe	**Sunshine and Shadows**, Activity 5, 7, 11 **From Seed to Plant**, Activity 1, 3-5, 13 **Observing an Aquarium**, Activity 3-6, 8, 9
Compare	**Properties**, Activity 10 **Finding the Moon**, Activity 8 **Investigating Water**, Activity 6, 8
Measure	**From Seed to Plant**, Activity 7 **Properties**, Activity 6 **Sunshine and Shadows**, Activity 6
Classify	**Investigating Water**, Activity 5 **From Seed to Plant**, Activity 1 **Properties**, Activity 2, 10, 12
Communicate	**Observing an Aquarium**, Activity 8, 9 **Properties**, Activity 4, 6, 7 **Sunshine and Shadows**, Activity 10-12
Put Things in Order	**Finding the Moon**, Activity 9 **From Seed to Plant**, Activity 13 **Properties**, Activity 6
Infer	**Investigating Water**, Activity 8, 10 **From Seed to Plant**, Activity 9, 11 **Sunshine and Shadows**, Activity 8, 9
Make a Model	**Finding the Moon**, Activity 2 **Observing an Aquarium**, Activity 2 **From Seed to Plant**, Activity 13
Predict	**Properties**, Activity 10, 11 **Investigating Water**, Activity 5, 7, 9 **Sunshine and Shadows**, Activity 3, 7, 10
Investigate	**Sunshine and Shadows**, Activity 10 **Investigating Water**, Activity 7, 8 **From Seed to Plant**, Activity 8
Draw a Conclusion	**Sunshine and Shadows**, Activity 7 **Investigating Water**, Activity 8 **From Seed to Plant**, Activity 2, 8

Grade One

Examples of investigations and activities that correlate to the lessons are listed. A citation does not reflect all of the activities or investigations from the program that might address a particular lesson.

Unit A

Chapter 1: All About Living Things

We use our five senses to make observations that help us determine what is living and what is nonliving. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
1. Your Senses	**Properties**, Activity 1-6 *__Using Your Senses__, Activity 1, 2, 5, 6, 8-12
2. Living and Nonliving Things	**From Seed to Plant**, Activity 1, 2 **Observing an Aquarium**, Activity 1, 2 *grade 2 unit

Chapter 2: A Look at Plants

Plants are living things with functional parts that help them meet their basic life needs in order to grow, change, and make other living things like themselves. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
3. Plants Are Living Things	**From Seed to Plant**, Activity 8
4. Plants Have Parts	**From Seed to Plant**, Activity 3, 4, 9, 10, 12
5. Roots	**From Seed to Plant**, Activity 4, 6, 12
6. Stems and Leaves	**From Seed to Plant**, Activity 9, 10
7. Seeds	**From Seed to Plant**, Activity 1-3
8. Plants Grow and Change	**From Seed to Plant**, Activity 2, 5, 7, 13

Unit B

Chapter 3: A Look at Animals

Animals are living things that grow and change. They can be classified as mammals, fish, amphibians, reptiles, or insects. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
1. Animals Are Living Things	**Observing an Aquarium**, Activity 4-7 *__Plant and Animal Populations__, Activity 4-7
2. Mammals	

3. More Animal Groups	**Butterflies and Moths**, Activity 1, 2, 12
4. Grow and Change	**Observing an Aquarium**, Activity 10 *__Plant and Animal Populations__, Activity 4-7 *__Butterflies and Moths__, Activity 1, 6, 9, 11 *grade 2 unit

Chapter 4: How Animals Meet Their Needs

Animals get food, find a suitable place to live, and stay safe in different ways. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
5. Getting Food	**Observing an Aquarium**, Activity 7-9 *__Butterflies and Moths__, Activity 10 *__Plant and Animal Populations__, Activity 6, 7, 10, 11
6. Where Animals Live	**Observing an Aquarium**, Activity 2, 4, 5 *__Butterflies and Moths__, Activity 4 *__Plant and Animal Populations__, Activity 3, 4, 6, 7
7. Staying Safe	**Observing an Aquarium**, Activity 4, 5 *__Butterflies and Moths__, Activity 3, 7, 8 *grade 2 unit

Unit C

Chapter 5: The Sky

Earth revolves around the Sun, which provides Earth with heat and light and causes night and day. Objects in the night sky include the Moon, which gets its light from the Sun; stars, which are grouped in constellations; and planets. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
1. The Sun	**Sunshine and Shadows**, Activity 1, 2, 4, 6, 7 **Finding the Moon**, Activity 1, 3 Science Extension
2. The Moon and Stars	**Finding the Moon**, Activity 1, 3, 4
3. The Planets	**Finding the Moon**, Activity 6 Science Challenge

Chapter 6: Weather and Seasons

Weather, such as winds, rain, and snow, affects living things. The seasons help us understand how weather changes throughout the year. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
4. Weather	*__Weather Watching__, Activity 4-7
5. Weather Changes	*__Weather Watching__, Activity 1, 3-7
6. Spring and Summer	*__Weather Watching__, Activity 1
7. Fall and Winter	*__Weather Watching__, Activity 1
	*grade 2 unit

Unit D
Chapter 7: Earth's Resources

Two important natural resources, rocks and soil, can be classified according to their characteristics. Other useful natural resources include water, air, plants, and animals. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
1. Rocks and Minerals	__Properties__, Activity 7 Science Challenge *__Soil Science__, Activity 5 Science Extension
2. Soil	*__Soil Science__, Activity 1-4, 7, 8
3. Water	__Investigating Water__, Activity 1 Science and Social studies Activity 12 Science and Language Arts Activity 12 Science, Technology, and Society __Observing an Aquarium__, Activity 11 Science, Technology, and Society
4. Air	*__Amazing Air__, Activity 1, 9, 10, Activity 10 Science, Technology, and Society
5. Living Things Are Resources	__From Seed to Plant__, Activity 2 Science and Social studies Activity 3 Science and the Arts Activity 10 Science Challenge __Observing an Aquarium__, Activity 4 Science and Careers Activity 7 Science and Social Studies
	*grade 2 unit

Chapter 8: Taking Care of Earth

Pollution hurts Earth and all who live on it. We can take care of Earth by reusing, recycling, and reducing the natural resources we use. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
6. Pollution	**Investigating Water**, Activity 12 Activity 12 Science Challenge **Observing an Aquarium**, Activity 11 Activity 11 Science Challenge
7. Caring for Earth's Resources	**Investigating Water**, Activity 12 Activity 12 Science, Technology, and Society **Observing an Aquarium**, Activity 11 Science, Technology, and Society

UNIT E

Chapter 9: Describe and Measure Matter

Matter includes solids, liquids, and gases. Each type of matter has mass and can be described by its properties. Each type also differs from the others in specific ways. Solids can be measured with a ruler and balance; liquids can be measured with a measuring cup. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
1. Properties of Matter	**Properties**, Activity 1-6
2. Solids	**Properties**, Activity 7
3. Liquids	**Properties**, Activity 8
4. Gases	**Properties**, Activity 9

Chapter 10: Changes in Matter

Solids and Liquids can be put together to make mixtures. Heat can change a solid to a liquid; heat leaving can change a liquid to a solid. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
5. Solids in Mixtures	**From Seed to Plant**, Activity 1
6. Solids and Liquids in Water	**Investigating Water**, Activity 6, 7, 12
7. Heat Changes Matter	**Investigating Water**, Activity 9, 9 Reinforcement

Unit F

Chapter 11: Force and Motion

Forces move objects. A ruler can measure change in position.
(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)

LESSON	*DSM II*
1. Things Move	**Investigating Water**, Activity 2, 3, 8 **Properties**, Activity 10, 11 *__Force and Motion__, Activity 1, 2
2. Measure Movement	**Investigating Water**, Activity 2 Science and Math *__Force and Motion__, Activity 1, 2, 9
3. The Ways Things Move	**Investigating Water**, Activity 2, 3, 5, 6 **Properties**, Activity 10, 11 *__Force and Motion__, Activity 1-12 *grade 2 unit

Chapter 12: Magnets and Sound

Magnets vary in many ways but all attract things with iron in them. Most of the force is at the poles. Vibrations make a variety of sounds. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
4. Things Magnets Move	**Properties**, Activity 11 **__Magnets__**, Activity 2
5. A Magnet's Poles	**Properties**, Activity 1 Science and Math **__Magnets__**, Activity 4, 6-8
6. Things Magnets Pull Through	**__Magnets__**, Activity 3
7. Moving Things Make Sounds	*__Using Your Senses__**,** Activity 5
8. Explore Different Sounds	*__Using Your Senses__**,** Activity 6, 7 *grade 2 unit **grade 3 unit

McGraw-Hill Science
Grade Two

SCIENCE PROCESS SKILLS

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SCIENCE PROCESS SKILL	*DSM II*
Observe	**Butterflies and Moths**, Activity 1, 2 **Using Your Senses**, Activity 1, 2 **Soil Science**, Activity 1, 2
Measure	**Length and Capacity**, Activity 5, 6, 10, 11 **States of Matter**, Activity 7 **Using Your Senses**, Activity 2
Compare	**Plant and Animal Populations**, Activity 1 **Force and Motion**, Activity 7 **Butterflies and Moths**, Activity 6, 12
Classify	**Weather Watching**, Activity 6 **Soil Science**, Activity 1 **Force and Motion**, Activity 12
Make a Model	**Amazing Air**, Activity 12 **Sink or Float**, Activity 9 **Soil Science**, Activity 12
Communicate	**States of Matter**, Activity 11 **Weather Watching**, Activity 3 **Amazing Air**, Activity 8
Infer	**States of Matter**, Activity 7 **Soils Science**, Activity 1, 4 **Amazing Air**, Activity 2, 9
Put Things in Order	**Length and Capacity**, Activity 1-3 **Butterflies and Moths**, Activity 11 **Plant and Animal Populations**, Activity 12
Predict	**Amazing Air**, Activity 3 **Sink or Float**, Activity 1 **Plant and Animal Populations**, Activity 10, 11
Investigate	**States of Matter**, Activity 5 **Sink or Float**, Activity 6, 7 **Using Your Senses**, Activity 9
Draw a Conclusion	**Soil Science**, Activity 8 **States of Matter**, Activity 1-3 **Classroom Plants**, Activity 10, 11

UNIT A

Chapter 1: Plants

Examples of investigations and activities that correlate to the lessons are listed. A citation does not reflect all of the activities or investigations from the program that might address a particular lesson.

Plants are living things. They have parts that help them meet their basic needs so they can grow and make new plants. We use plants in many ways.
(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)

LESSON	*DSM II*
1. Plants Are Living Things	**Classroom Plants**, Activity 1, 1 Science Challenge, Activity 5 *__Plant and Animal Life Cycles__, Activity 1
2. Parts of Plants	**Classroom Plants**, Activity 1, 6-9
3. Plants Make New Plants	**Classroom Plants**, Activity 9, 10
4. Everyone Needs Plants	**Classroom Plants**, Activity 1 Science, Technology, and Society Activity 6 Science and Social Studies Activity 8 Science and Social Studies *grade 3 unit

Chapter 2: Animals

The six groups of animals meet their needs in different ways. Baby animals grow up to look like their parents. (*Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
5. All Kinds of Animals	**Butterflies and Moths**, Activity 12 *__Insect Life__, Activity 6 *__Plant and Animal Life Cycles__, Activity 1 Science Challenge
6. Animals Meet Their Needs	**Butterflies and Moths**, Activity 1, 7, 10 **Plant and Animal Populations**, Activity 4-7, 10-12
7. Animals Grow and Change	**Butterflies and Moths**, Activity 1, 6, 9, Activity 9 Science Challenge, 11 **Plant and Animal Populations**, Activity 5, 6 *__Plant and Animal Life Cycles__, Activity 9, 10 *grade 3 unit

UNIT B

Chapter 3: Land Habitats

The different characteristics of land habitats determine which plants and animals can live there. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
1. Where Plants and Animals Live	**Plant and Animal Populations**, Activity 3-7, 9, 11 **Butterflies and Moths**, Activity 4 Activity 4 Science and Social Studies
2. Life in a Woodland Forest	
3. Life in a Rain Forest	**Butterflies and Moths**, Activity 4 Science and Social Studies
4. Life in a Desert	
5. Life in the Arctic	

Chapter 4: Water Habitats

Fresh and salt water habitats support many kinds of plants and animals. We must reduce pollution in all of Earth's habitats. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
6. Life in a Fresh Water Habitat	*__Observing an Aquarium__, Activity 2-6 **Plant and Animal Populations**, Activity 11 Science Extension
7. Life in a Salt Water Habitat	**Plant and Animal Populations**, Activity 1
8. Caring for Earth's Habitats	**Butterflies and Moths**, Activity 8 Science, Technology and Society **Soil Science**, Activity 11 Science, Technology, and Society Activity 12 Science, Technology, and Society **__Water Cycle__**, Activity 9 Science, Technology, and Society Activity 12, Science, Technology, and Society *grade 1 unit **grade 3 unit

UNIT C

Chapter 5: Weather and Other Earth Changes

Changes in Earth's weather are caused in part by the water cycle. Earth changes slowly through erosion and quickly through earthquakes, landslides, and volcanoes.
(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)

LESSON	*DSM II*
1. Water and Our Weather	**Weather Watching**, Activity 6-10 **States of Matter**, Activity 8-10 *__Water Cycle__, Activity 4-6, 8, 9, 11-13
2. Earth Can Change Slowly	**Soil Science**, Activity 5, 6, 12 *__Earth Movements__, Activity 6-9
3. Earth Can Change Quickly	*__Earth Movements__, Activity 10, 11
	*grade 3 unit

Chapter 6: Earth Yesterday and Today

Fossils give us clues about plants and animals that lived long ago and are now extinct. Some living things today are becoming extinct because they cannot meet their basic needs.
(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)

LESSON	*DSM II*
4. Clues in Rocks	*__Earth Movements__, Activity 3 *__Dinosaur Classification__, Activity 2,3
5. Putting the Clues Together	*__Earth Movements__, Activity 3 *__Dinosaur Classification__, Activity 2, 3
6. Life on Earth Changes	*__Dinosaur Classification__, Activity 1 Science Challenge
	*grade 3 unit

UNIT D

Chapter 7: The Sun and Earth

Earth's rotation on its axis causes day and night, while its orbit around the Sun causes seasons.
(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)

LESSON	*DSM II*
1. Day and Night	*__Finding the Moon__, Activity 3 Science Extension **__Solar System__, Activity 9
2. Seasons	**__Solar System__, Activity 1 Science Challenge
	*grade 1 unit **grade 3 unit

Chapter 8: Moon, Stars, and Planets

The Moon orbits Earth, while Earth and the other planets orbit the Sun. Stars are huge objects that produce their own heat and light. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
3. The Moon	*__Finding the Moon__, Activity 1-4, 6, 11
4. The Moon Changes	*__Finding the Moon__, Activity 9, 10
5. Stars	**__Solar System__, Activity 11, 12
6. Planets	**__Solar System__, Activity 1, 6, 8
	*grade 1 unit **grade 3 unit

UNIT E

Chapter 9: Matter

All things are made of matter, which can be a solid, liquid, or gas. Matter can change physically or chemically. (*Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
1. Matter All Around	*__Properties__, Activity 1-6 __States of Matter__, Activity 1-3 __Soil Science__, Activity 1, 3
2. Three States of Matter	__States of Matter__, Activity 1-3, __Amazing Air__, Activity 1-6 *__Properties__, Activity 7-9
3. Changing Matter	__States of Matter__, Activity 4, 5, 7-12
	*grade 1 unit

Chapter 10: Energy

Energy, the power to make matter move or change, can take the form of heat, light , or sound. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
4. Heat	__States of Matter__, Activity 4, 7, 11, 12 *__Powders and Crystals__, Activity 9
5. Light	
6. Sound	__Using Your Senses__, Activity 5, 6 *__Sound__, Activity 1-11
	*grade 3 unit

UNIT F

Chapter 11: Forces and Motion

Forces-pushes and pulls-move things. Friction slows down movement. Levers and ramps are simple machines that make movement easier.
(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)

LESSON	*DSM II*
1. Pushes and Pulls	**Force and Motion**, Activity 1, 2 **Amazing Air**, Activity 12 **Weather Watching**, Activity 4, 5
2. Forces and Changes	**Force and Motion**, Activity 4, 5
3. Levers	**Force and Motion**, Activity 3
4. Ramps	**Force and Motion**, Activity 9-11

Chapter 12: Forces and Magnets

Magnets are forces that push and pull. We have many uses for magnets. Earth's magnetic field helps people find their way. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
5. All About Magnets	*__Properties__, Activity 11 **__Magnets__, Activity 2-4, 6, 7
6. Everyday Magnets	*__Properties__, Activity 11 Science Extension **__Magnets__, Activity 8, 9 Activity 3 Science, Technology, and Society Activity 11 Science Extension Activity 11 Science and Social Studies *grade 1 unit **grade 3 unit

McGraw-Hill Science
Grade Three

SCIENCE PROCESS SKILLS

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SCIENCE PROCESS SKILL	*DSM II*
Observe	**Food Chains and Webs**. Activity 4-7 **Magnets**, Activity 1, 2, 5 **Soil Science**, Activity 1, 2
Infer	**States of Matter**, Activity 7 **Sound**, Activity 8-10 **Magnets**, Activity 10
Classify	**Dinosaur Classification**, Activity 9, 10 **Insect Life**, Activity 6 **Soil Science**, Activity 1
Measure	**Length and Capacity**, Activity 5, 6, 10, 11 **Measuring**, Activity 1-12 **Weather Instruments**, Activity 5, 6
Use Numbers	**Dinosaur Classification**, Activity 6, 7 **Force and Motion**, Activity 3, 4, 7 **Solar System**, Activity 6, 8
Communicate	**Amazing Air**, Activity 8 **Earth Movements**, Activity 10, 12 **Water Cycle**, Activity 12
Predict	**Electrical Circuits**, Activity 6 **Looking at Liquids**, Activity 3, 4 **Plant and Animal Populations**, Activity 10, 11
Interpret Data	**Powders and Crystals**, Activity 12 **Electrical Circuits**, Activity 7 **Using Your Senses**, Activity 12
Form a Hypothesis	**Plant and Animal Populations**, Activity 9 **Sink or Float**, Activity 12 Science Challenge **Powders and Crystals**, Activity 12
Use Variables	**Animal Behavior**, Activity 11, 12 **Plant and Animal Populations**, Activity 9 **States of Matter**, Activity 4
Experiment	**Food Chains and Webs**, Activity 2 **Insect Life**, Activity 8 **Animal Behavior**, Activity 11, 12

Make a Model	**Solar System**, Activity 6, 8 **Earth Movements**, Activity 7, 9, 10 **Amazing Air**, Activity 12
Define Based on Observation	**Magnets**, Activity 2, 5 **Insect Life**, Activity 1 **Electrical Circuits**, Activity 6

UNIT A

Chapter 1: Plants

Examples of investigations and activities that correlate to the lessons are listed. A citation does not reflect all of the activities or investigations from the program that might address a particular lesson.

All living things have basic life processes and are made of cells. Cells differ in plants and animals. Plants meet their need for food by making their own food. The wide variety of plants reproduces in different ways. Most kinds of plants reproduce by seeds. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
1. How Living Things Are Alike	**Plant and Animal Life Cycles**, Activity 1 **Plant and Animal Populations**, Activity 1 **Small Things and Microscopes**, Activity 7-9
2. The Needs of Plants	**Classroom Plants**, Activity 5-9 **Food Chains and Webs**, Activity 3
3. The Life Cycle of a Plant	**Plant and Animal Life Cycles**, Activity 2, 3, 6, 8, 9 **Classroom Plants**, Activity 9, 10

Chapter 2: Animals

Animals have a diversity of body structures and parts. They have many ways of responding to their basic needs. Animals have many differences in their life cycles, but most animals grow from eggs.
(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)

LESSON	*DSM II*
4. The Needs of Animals	**Butterflies and Moths**, Activity 1, 10 **Food Chains and Webs**, Activity 4-10 **Plant and Animal Life Cycles**, Activity 4, 5, 11
5. How Animals Grow	**Insect Life**, Activity 2, 7 **Butterflies and Moths**, Activity 1, 6, 9, 11 **Plant and Animal Life Cycles**, Activity 4, 5, 10
6. Parts of Animals	**Plant and Animal Populations**, Activity 4-7, 10, 11 **Insect Life**, Activity 1, 2, 6, 9, 12

7. Kinds of Animals	**Butterflies and Moths**, Activity 2, 10, 12 **Dinosaur Classification**, Activity 9, 10 **Insect Life**, Activity 6 **Butterflies and Moths**, Activity 11 Science and Social Studies, 12

UNIT B

Chapter 3: Relationships Among Living Things

Organisms are producers, consumers, or decomposers within their habitats. They are interdependent in ways that enable them to survive, recycling energy as food and meeting their other basic needs.
(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)

LESSON	*DSM II*
1. Ecosystems	**Plant and Animal Populations**, Activity 3, 10-12 **Food Chains and Webs**, Activity 7-9 **Small Things and Microscopes**, Activity 10
2. Food Chains and Food Webs	**Food Chains and Webs**, Activity 3, 7-12 Activity 12 Science Extension **Insect Life**, Activity 10
3. Role for Plants and Animals	**Food Chains and Webs**, Activity 3, 7-11 **Plant and Animal Populations**, Activity 5, 6, 10, 11 **Classroom Plants**, Activity 9, 9 Science Challenge Activity 8 Science Challenge

Chapter 4: Ecosystems in Balance

Organisms compete and adapt in their environments. Environments change. Organisms respond to changes in the environment. Organisms may become endangered or extinct. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
4. Competition Among Living Things	**Food Chains and Webs**, Activity 10-12 **Insect Life**, Activity 10 **Plant and Animal Populations**, Activity 10-12
5. Adaptations for Survival	**Insect Life**, Activity 5, 9, 11, 12 **Butterflies and Moths**, Activity 3, 7, 8, 10 **Classroom Plants**, Activity 10, 11
6. Changing Ecosystems	**Dinosaur Classification**, Activity 1 Science Challenge **Small Things and Microscopes**, Activity 10 Science Extension, 13 **Food Chains and Webs**, Activity 10 Science, Technology, and Society Activity 10 Science and Language Arts

UNIT C

Chapter 5: Earth's Resources

Examples of investigations and activities that correlate to the lessons are listed. A citation does not reflect all of the activities or investigations from the program that might address a particular lesson.

Earth provides resources of rock, soil, air, water, and fuels that make life possible. The formation of rocks, soil, and fossil fuels happen over time, making these resources critical to conserve.
(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)

LESSON	***DSM II***
1. Minerals and Rocks	*__Rocks and Minerals__, Activity 1-10 __Earth Movements__, Activity 3, Activity 3 Science Challenge, Science and Health
2. Kinds of Soil	__Soil Science__, Activity 1-8 __Food Chains and Webs__, Activity 1
3. Fossils and Fuels	*__Rocks and Minerals__, Activity 10 Science and Social Studies __Earth Movements__, Activity 3 Science Extension
4. Water in Sea, Land, and Sky	__Water Cycle__, Activity 1-13 __Weather Watching__, Activity 11
5. Saving Our Resources	*__Rocks and Minerals,__ Activity 10 Science and Social Studies
	*grade 5 unit

Chapter 6: Forces Shape the Land

Earth's surface has been shaped over time into a variety of features. The surface is still being shaped, due to slow processes (such as weathering and erosion) and rapid processes (such as landslides, volcanic eruptions, earthquakes, and severe storms).
(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)

LESSON	*DSM II*
6. Landforms	__Earth Movements__, 9, 10, 12 __Soil Science__, Activity 12
7. Slow Changes on Land	__Earth Movements__, Activity 3, 6-9 __Soil Science__, Activity 5, 6, 11, 12
8. Fast Changes on Land	__Earth Movements__, Activity 10, 11 __Weather Watching__, Activity 9, 10

UNIT D

Chapter 7: Earth's Weather

Examples of investigations and activities that correlate to the lessons are listed. A citation does not reflect all of the activities or investigations from the program that might address a particular lesson.

Weather changes from day to day. It can be described by measurable quantities, such as temperature, wind direction and speed, and precipitation. The continuous exchange of water between the land and the atmosphere is basic to weather.
(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)

LESSON	*DSM II*
1. The Weather	**Weather Watching**, Activity 1-5 **Weather Instruments**, Activity 1-6
2. The Water Cycle	**Water Cycle**, Activity 9-13 **Weather Instruments**, Activity 11
3. Describing Weather	**Weather Watching**, Activity 2-5, 7, 12 **Weather Instruments**, Activity 1-6, 12

Chapter 8: Earth in Space

Objects in the sky can be described by observable patterns, such as the Sun's apparent path across the sky, the cyclic changes in the observable shape of the Moon, and the paths of planets around the Sun.
(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)

LESSON	*DSM II*
4. How Earth Moves	**Solar System**, Activity 2, 3, 9, Activity 9 Science Challenge
5. Phases of the Moon	*__Finding the Moon__, Activity 4, 9, 10
6. The Sun and Its Planets	**Solar System**, Activity 1, 6, 8
	*grade 1 unit

UNIT E

Chapter 9: How Things Move

The way to change how an object, whether at rest or in motion, moves is by a push or a pull. The size of the change is related to the strength of the push or pull.
(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)

LESSON	*DSM II*
1. Motion and Speed	**Force and Motion**, Activity 1, 2 **Solar System**, Activity 2
2. Forces	**Force and Motion**, Activity 1, 2 **Solar System**, Activity 2
3. Changes in Motion	**Force and Motion**, Activity 4, 5

Chapter 10: Work and Machines

Work occurs when there is a change in motion. Machines make doing work easier by changing the direction or amount of force needed.
(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)

LESSON	*DSM II*
4. Doing Work	**Force and Motion**, Activity 1, 2
5. Levers and Pulleys	**Force and Motion**, Activity 3, 6, 8
6. More Simple Machines	**Force and Motion**, Activity 9-12

UNIT F

Chapter 11: Matter

All objects are made of matter. The properties of matter include size, mass, and temperature-which can be measured by rulers, balances, and thermometers. Matter exists in states-that is, solid, liquid, and gas-and can be changed from state to state by heating and cooling. Matter can be combined in ways that change or do not change their properties.
(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)

LESSON	*DSM II*
1. Properties of Matter	**States of Matter**, Activity 1-3 **Looking at Liquids**, Activity 1-3, 8 **Soil Science**, Activity 1
2. Comparing Solids, Liquids, and Gases	**States of Matter**, Activity 1-3, 8-12 **Looking at Liquids**, Activity 11 **Powders and Crystals**, Activity 5
3. Building Blocks of Matter	**Powders and Crystals**, Activity 6-9 **Magnets**, Activity 2

Chapter 12: Energy

Energy is what makes matter move or change. Heat causes changes in state and can cause matter to burn. Light travels in straight lines and can pass through or be reflected by matter. Sound is produced by vibrating matter. Electricity can move through paths made out of matter (metals). *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
4. How Heat Travels	**Powders and Crystals**, Activity 9 **Water Cycle**, Activity 12, 13 **Measuring**, Activity 12 **Earth Movements**, Activity 4
5. How Light Travels	***Lenses and Mirrors**, Activity 1-8
6. Properties of Sound	**Sound**, Activity 1-11
7. Paths for Electricity	**Electrical Circuits**, Activity 1-12 *grade 5 unit

McGraw-Hill Science
Grade 4

SCIENCE PROCESS SKILLS

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SCIENCE PROCESS SKILL	*DSM II*
Observe	**Food Chains and Webs**, Activity 4-7 **Magnets**, Activity 1, 2, 5 **Insect Life**, Activity 2, 7
Infer	**Weather Instruments**, Activity 9 **Magnets**, Activity 10 **Sound**, Activity 8-10
Classify	**Dinosaur Classification**, Activity 9, 10 **Insect Life**, Activity 6 **Electrical Circuits**, Activity 6, 7
Measure	**Measuring**, Activity 1-12 **Weather Instruments**, Activity 5, 6 **Dinosaur Classification**, Activity 6
Use Numbers	**Solar System**, Activity 5, 6 **Earth Movements**, Activity 5 **Weather Instruments**, Activity 5, 12
Communicate	**Food Chains and Webs**, Activity 8 **Earth Movements**, Activity 10, 12 **Water Cycle**, Activity 12
Predict	**Electrical Circuits**, Activity 6 **Looking at Liquids**, Activity 3, 4 **Water Cycle**, Activity 5
Interpret Data	**Powders and Crystals**, Activity 12 **Animal Behavior**, Activity 10 **Electrical Circuits**, Activity 7
Form a Hypothesis	**Food Chains and Webs**, Activity 2 **Animal Behavior**, Activity 12 **Powders and Crystals**, Activity 12
Use Variables	**Animal Behavior**, Activity 11, 12 **Insect Life**, Activity 8 **Food Chains and Webs**, Activity 2

Experiment	**Animal Behavior**, Activity 11, 12 **Insect Life**, Activity 8 **Food Chains and Webs**, Activity 2
Make a Model	**Solar System**, Activity 6, 8 **Earth Movements**, Activity 7, 9, 10 **Water Cycle**, Activity 11
Define Based on Observations	**Magnets**, Activity 2, 5 **Insect Life**, Activity 1 **Electrical Circuits**, Activity 6

UNIT A

Chapter 1: From Cells to Ecosystems

Examples of investigations and activities that correlate to the lessons are listed. A citation does not reflect all of the activities or investigations from the program that might address a particular lesson.

Plant cells and animal cells have similarities and differences, as do cells of all the kingdoms. Fossils attest to changes in organisms over time. In all ecosystems matter cycles between living and nonliving things. Changes in ecosystems can be beneficial or harmful. Humans contribute to these changes, often causing problems and also attempting to address them.
(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)

LESSON	*DSM II*
1. The Cells in Living Things	**Small Things and Microscopes**, Activity 7-13 *__Pond Life__, Activity 6, 7
2. Classifying Organisms	**Dinosaur Classification**, Activity 9, 10, 12 **Insect Life**, Activity 6
3. Organisms of the Past	**Dinosaur Classification**, Activity 1 Science Extension, 3-8
4. Organisms and Where They Live	**Food Chains and Webs**, Activity 7-12 **Insect Life**, Activity 10 *__Pond Life__, Activity 1, 3, 4
5. Changes in Ecosystems	**Food Chains and Webs**, Activity 12 Science, Technology, and Society **Insect Life**, Activity 4 Science and Social Studies **Small Things and Microscopes**, Activity 13 Science Technology, and Society *grade 5 unit

Chapter 2: Plants

The basic structures of plants (that is, roots, stems, leaves, and flowers) enable plants to produce food and to reproduce. Each of these processes has special structures-such as the pistil and embryo, which function in plant reproduction. The wide variety of plants have many differences in the way they carry out these basic life processes. (*Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	***DSM II***
6. Plant Parts	**Plant and Animal Life Cycles**, Activity 2, 3, 6 **Food Chains and Webs**, Activity 3
7. Plant Growth and Reproduction	**Plant and Animal Life Cycles**, Activity 3, 8, 9 *__Fungi-Small Wonders__, Activity 2, 3 *grade 5 unit

UNIT B

Chapter 3: Describing Animals

Animals are grouped according to their shared characteristics, such as physical traits, how embryos develop, and the chemicals present in their cells. A basic criterion used is whether or not animals have a backbone. Backbones provide increased mobility and protection. Without a backbone, some kinds of animals are limited to life in water or in living hosts.
(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)

LESSON	*DSM II*
1. Animal Characteristics	**Plant and Animal Life Cycles**, Activity 11 **Insect Life**, Activity 3, 6 **Dinosaur Classification**, Activity 9, 10
2. Animals Without Backbones	*__Oceans__, Activity 11, 12 *__Pond Life__, Activity 5 Science Extension, Activity 8 Science Extension
3. Animals With Backbones	*__Pond Life__, Activity 4 Science Extension Activity 9, 9 Science Extension *grade 5 unit

Chapter 4: Life Processes

An animal's body consists of interacting organ systems that work together, coordinated by the nervous system. Body systems are part of the overall adaptation of an animal to its environment. An animal's adaptations provide for rapid responses to changes in the environment and for reproduction. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
4. Organ Systems	*__You and Your Body__, Activity 1-7
5. Development and Reproduction	**Insect Life**, Activity 2, 7 **Animal Behavior**, Activity 1, Activity 11 Science Challenge

6. Animal Survival	**Plant and Animal Life Cycles**, Activity 4, 5, 10 **Insect Life**, Activity 9, 11, 12 **Dinosaur Classification**, Activity 8 **Animal Behavior**, Activity 3-10 *grade 5 unit

UNIT C

Chapter 5: Earth's History

Rocks and fossils provide clues about living things and processes of change. Minerals provide information on how rocks were formed. Fossils provide clues about life and environments of the past. (*Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
1. What You Can Learn from Rocks	**Earth Movements**, Activity 3 ***Rocks and Minerals**, Activity 1-10
2. Clues from Fossils	**Dinosaur Classification**, Activity 2, 3 **Earth Movements**, Activity 3 *grade 5 unit

Chapter 6: Earth's Surface and Interior

Earth's surface has been shaped over time into a variety of features. The surface is still being shaped, due to interior forces, weathering, and erosion. The resulting features of Earth's surface are clues to the history of an area. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
3. Shaping Earth's Surface	***Erosion**, Activity 1, 2, 6, 9-12 ****Soil Science**, Activity 12
4. The Story of Soil	****Soil Science**, Activity 1-7, 10-12
5. Inside Earth	**Earth Movements**, Activity 1, 2, 6-12 *grade 5 unit **grade 3 unit

Chapter 7: Sun, Moon, and Planets

The motions of Earth and Moon, with respect to each other and the Sun, produce patterns of apparent change. The planets and other objects of the solar system (comets, meteors, and asteroids) have unique characteristics. The Sun is only one of billions of stars. These other stars are at great distances far beyond the solar system. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
6. Earth, the Moon, and the Sun	**Solar System**, Activity 2, 9, 9 Science Challenge
7. The Solar System and Beyond	**Solar System**, Activity 1, 6, 8, 10-12

UNIT D

Chapter 8: Earth's Water

Water covers about 70 percent of Earth's surface. It can be found in different places on the surface as well as in the atmosphere. It is in constant interchange between the surface and the atmosphere, continually changing states (solid, liquid, and gas). Fresh water is a precious resource and should be conserved. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
1. Water, Water, Everywhere	**Water Cycle**, Activity 1, 2 *__Oceans__, Activity 1
2. Follow the Water	**Water Cycle**, Activity 4-6, 8, 9, 11-13
3. Motions in the Oceans	*__Oceans__, Activity 5-9
4. Go with the Flow	**Water Cycle**, Activity 2, 2 Science Extension
5. Water Please	**Water Cycle**, Activity 1, Activity 11 Science and Math Activity 12 Science, Technology, and Society *grade 5 unit

Chapter 9: Earth's Weather

Weather conditions include air pressure, temperature, humidity, wind (speed and direction), cloud cover, and precipitation. Tools such as barometers, measure these factors. Weather changes from day to day. Climate is a pattern of weather change over a period of time. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
6. Air, Wind, and the Atmosphere	**Weather Instruments**, Activity 4 Science Challenge, 9, 10 **Weather Forecasting**, Activity 1 Science Challenge, 4, 9, 10
7. Weather and Climate	**Weather Instruments**, Activity 11, 12

	Weather Forecasting, Activity 1, 1 Science Extension, 2, 4 Science Extension, 5, 7, 10

UNIT E

Chapter 10: Properties of Matter

Matter has observable properties, including buoyancy.. Matter exists in different states-including solid, liquid, and gas-with particles that make up matter in different amounts of motion in each state, the greatest in gases. The density of matter can be found by measuring the mass and the volume of an object, and dividing mass by volume. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
1. Matter	**Powders and Crystals**, Activity 1-4 **Looking at Liquids**, Activity 1-3, 8, 9, 12 *__States of Matter__, Activity 1-4 **Magnets**, Activity 2
2. Measuring Matter	**Measuring**, Activity 1-12 *__Length and Capacity__, Activity 1-12 **Looking at Liquids**, Activity 5, 8, 9 *grade 3 unit

Chapter 11: Changes in Matter

Matter is classified into elements and compounds. Mixtures are combinations of matter that can be separated by physical means. Elements are the basic substances that make up all matter. They are classified by their properties into metals and nonmetals of the periodic table. Matter can undergo physical changes, wherein substances retain their basic identity, and chemical changes, wherein substances become other substances. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
3. What Matter Is Made of	**Powders and Crystals**, 4 Science Challenge, 5-9, Activity 9 Science Challenge **Magnets**, Activity 2 **Looking at Liquids**, Activity 8, 9, 12
4. Physical Changes	**Powders and Crystals**, Activity 5 **Water Cycle**, Activity 12 *__States of Matter__, Activity 4, 7-12
5. Chemical Changes	**Powders and Crystals**, Activity 6-9 *grade 3 unit

UNIT F

Chapter 12: Forms of Energy

Forces affect the speed and direction of motion. Work is done when a force makes an object move. Energy is needed to do work. Each of the many forms of energy has its own properties. For example, light travels in straight lines and can be absorbed or reflected by surfaces. Sound varies in pitch and loudness. Heat moves from warmer to cooler objects.
(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)

LESSON	*DSM II*
1. Motion, Forces, and Energy	*__Forces and Motion__, Activity 1, 2 **__Simple Machines__, Activity 5 Science, Technology, and Society __Flight and Rocketry__, Activity 8, 9, 11, 12
2. Energy and Tools	*__Force and Motion__, Activity 1-12 **__Simple Machines__, Activity 1-12
3. Heat	__Powders and Crystals__, Activity 9 __Weather Instruments__, Activity 1 **__Solar Energy__, Activity 2
4. Light	**__Color and Light__, Activity 1-10 **__Lenses and Mirrors__, Activity 1-8
5. Sound	__Sound__, Activity 1-11 *grade 3 unit **grade 5 unit

Chapter 13: Electricity and Magnetism

Electric charges can build up and discharge suddenly. They can also flow through circuits. Circuits require a complete path through which the charges can pass. Moving charges produce a magnetic force and a moving magnet can make electric charges move. Using electricity impacts human life in many ways and requires safe use. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
6. Static Electricity	__Electrical Circuits__, Activity 1 Science and Language Arts. Activity 2 Science Challenge, Science Extension
7. Current Electricity	__Electrical Circuits__, Activity 1-12
8. Electricity and Magnets	__Magnets__, Activity 7-11 *__Electromagnetism__, Activity 5-10 *grade 5 unit

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Grade 5

SCIENCE PROCESS SKILLS

The Delta Science Modules II Program is inquiry based. The fundamentals of scientific inquiry are embedded in all modules and opportunities for guided and independent inquiry are provided.
Examples of activities and investigations that emphasize a skill are listed. A citation does not reflect all of the investigations or activities from the program that might address a particular skill.

SCIENCE PROCESS SKILL	*DSM II*
Observe	**Rocks and Minerals**, Activity 1, 3 **Color and Light**, Activity 1, 2 **Insect Life**, Activity 2, 7
Infer	**Weather Instruments**, Activity 9 **Fungi-Small Wonders**, Activity 9, 10 **You and Your Body**, Activity 5
Classify	**Rocks and Minerals**, Activity 4 **Weather Forecasting**, Activity 10 **Dinosaur Classification**, Activity 9, 10
Measure	**Solar Energy**, Activity 4 **Measuring**, Activity 1-12 **Weather Forecasting**, Activity 3, 5
Use Numbers	**Simple Machines**, Activity 1 **Solar System**, Activity 5, 6 **Oceans**, Activity 3, 4
Communicate	**Food Chains and Webs**, Activity 8 **Erosion**, Activity 6 **Lenses and Mirrors**, Activity 12
Predict	**Simple Machines**, Activity 4 **Looking at Liquids**, Activity 3, 4 **Color and Light**, Activity 2, 9
Interpret Data	**Animal Behavior**, Activity 10 **Electromagnetism**, Activity 6 **Sound**, Activity 5
Form a Hypothesis	**Food Chains and Webs**, Activity 2 **Lenses and Mirrors**, Activity 12 **Pond Life**, Activity 12
Use Variables	**Animal Behavior**, Activity 11, 12 **Solar Energy**, Activity 6 **Pond Life**, Activity 12

Experiment	**Insect Life**, Activity 8 **Lenses and Mirrors**, Activity 12 **Fungi-Small Wonders**, Activity 7
Make a Model	**You and Your Body**, Activity 2 **Solar System**, Activity 6, 8 **Erosion**, Activity 5
Define Based on Observations	**Electromagnetism**, Activity 6 **Insect Life**, Activity 1 **Simple Machines**, Activity 1

UNIT A

Chapter 1: Plants and Their Parts

Examples of investigations and activities that correlate to the lessons are listed. A citation does not reflect all of the activities or investigations from the program that might address a particular lesson.

Plants have great diversity in both nonvascular and vascular groups. However, all plants have chlorophyll, enabling them to make food. Vascular plants have special tissue for transporting materials. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
1. Classifying Living Things	**Plant and Animal Life Cycles**, Activity 9-11 **Fungi-Small Wonders**, Activity 1-4 *__Plants in Our World__, Activity 1
2. Roots, Stems, and Leaves	**Food Chains and Webs**, Activity 3 *__Plants in Our World__, Activity 2-11
3. The Importance of Plants	**Food Chains and Webs**, Activity 3 *__Plants in Our World__, Activity 2-12 *grade 6 unit

Chapter 2: Plant Diversity

The presence or absence of seeds is a major grouping criterion for plants. Plants with seeds reproduce sexually, with some mechanisms of vegetative propagation as well. Plants without seeds reproduce asexually. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
4. Plants Without Seeds	**Plant and Animal Life Cycles**, Activity 9 Science Challenge **Pond Life**, Activity 10
5. Plants With Seeds	**Plant and Animal Life Cycles**, Activity 9, 10
6. Flowers and Seeds	**Plant and Animal Life Cycles**, Activity 7-9

7. Plant Responses and Adaptations	**Plant and Animal Life Cycles**, Activity 6 Science Extension, Activity 11 Science Extension *__Plants in Our World__, Activity 3 Science Challenge Activity 11 Science Extension *grade 6 unit

Chapter 3: Animal Diversity

Animals have adapted to their environment in a variety of ways. The diversity of animals has been enhanced through genetics. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
8. Animal Structure and Function	**Dinosaur Classification**, Activity 8, 9 **Insect Life**, Activity 1, 2, 6, 7 **Oceans**, Activity 10-12
9. Animal Adaptations	**Oceans**, Activity 10-12 **Insect Life**, Activity 9, 11, 12 *__DNA-From Genes to Proteins__, Activity 1, 2 *grade 6 unit

UNIT B

Chapter 4: Ecosystems

All living and nonliving things interact in an ecosystem. Organisms interact by transferring energy in food to each other. Nonliving things interact by continuous recycling of their resources. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
1. Living Things and Their Environment	**Pond Life**, Activity 1, 3, 4 **Food Chains and Webs**, Activity 7, 8 **Small Things and Microscopes**, Activity 10
2. Food Chains and Food Webs	**Food Chains and Webs**, Activity 9-12 **Insect Life**, Activity 10 **Pond Life**, Activity 11
3. Cycles of Life	**Water Cycle**, Activity 11-13 **Food Chains and Webs**, Activity 9 ***Plants in Our World**, Activity 9-10 *grade 6 unit

Chapter 5: Populations and Ecosystems

Different ecosystems around the world house a multitude of organisms constantly interacting with each other. All ecosystems change over time, with a few undergoing sudden transformations. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
4. How Populations Survive	**Food Chains and Webs**, Activity 11 *__Plants in Our World__, Activity 3 **Pond Life**, Activity 1 Activity 1 Science, Technology, and Society Activity 5 Science Challenge
5. Biomes	
6. How Ecosystems Change	**Food Chains and Webs**, Activity 10 Science, Technology, and Society **Pollution**, Activity 9 Science, Technology, and Society Activity 10 Science and social Studies **Pond Life**, Activity 7 Science, Technology, and Society Activity 12 Science Challenge *grade 6 unit

UNIT C

Chapter 6: Rocks and Minerals

Gravity affects Earth, defining its position and movement in relation to its neighbors. The rocks and minerals of earth's crust are in constant change by destructive and constructive forces, as well as by human use. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
1. Earth and Its Neighbors	**Solar System**, Activity 1, 2, 9, 12 *__Earth, Moon, and Sun__, Activity 5, 8, 9
2. Earth's Changing Crust	**Earth Movements**, Activity 6-11 **Erosion**, Activity 1, 2, 6, 1-12
3. Minerals of Earth's Crust	**Rocks and Minerals**, Activity 1, 3-8
4. Earth's Rocks and Soil	**Rocks and Minerals**, Activity 1, 2, 9-12, **Food Chains and Webs**, Activity 1 *__Earth Processes__, Activity 4-6 *grade 6 unit

Chapter 7: Air, Water, and Energy

Earth's air, water, and energy resources are all necessary for life. Each must be kept clean and used efficiently to prevent the degradation and pollution of this planet. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
5. Earth's Atmosphere	**Pollution**, Activity 4 Activity 4 Science Extension, 10, Activity 10 Science, Technology, and Society
6. Earth's Water	**Oceans**, Activity 1, 2, Activity 2 Science, Technology, and Society **Pollution**, Activity 5-7 **Water Cycle**, Activity 1, 8 Science Challenge
7. Earth's Oceans	**Oceans**, Activity 1-9
8. Energy Resources	**Solar Energy**, Activity 2, 9, 10, 13 **Earth Movements**, Activity 10 Science, Technology, and Society

UNIT D

Chapter 8: Weather

Weather varies depending on the insolation, humidity, and air pressure. These factors are closely interrelated. A change in any one can bring about a change in the others.
(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)

LESSON	*DSM II*
1. Atmosphere and Air Temperature	**Weather Instruments**, Activity 1-3, Activity 6 Science Challenge, 12 **Weather Forecasting**, Activity 1, 4, 5
2. Water Vapor and Humidity	**Weather Instruments**, Activity 8 **Weather Forecasting**, Activity 9 **Water Cycle**, Activity 9, 12, 13
3. Clouds and Precipitation	**Weather Instruments**, Activity 9-11 **Weather Forecasting**, Activity 9, 10
4. Air Pressure and Wind	**Weather Instruments**, Activity 2-5 **Weather Forecasting**, Activity 4, 5

Chapter 9: Weather Patterns

Air masses meet and produce weather fronts and, at times, severe storms. The pattern of overall weather changes is the climate of a region, a pattern affected by many factors.
(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)

LESSON	*DSM II*
5. Air Masses and Fronts	**Weather Forecasting**, Activity 2, 5, 7, 10
6. Severe Storms	**Weather Forecasting**, Activity 12
7. Climate	**Weather Forecasting**, Activity 1 Science Extension

UNIT E

Chapter 10: Properties and Structure of Matter

All matter is made up of atoms and molecules. Matter composed of only one kind of atom is an element. Matter can change states, from solid to liquid to gas and back, through heating and cooling. Matter has definite melting and boiling points to define those changes.
(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)

LESSON	*DSM II*
1. Physical Properties	**Looking at Liquids**, Activity 8, 9 **Electrical Circuits**, Activity 6, 7 *__Chemical Interactions__, Activity 1, 2 **Electromagnetism**, Activity 1
2. What Matter Is Made of	*__Chemical Interactions__, Activity 4-7
3. Solids, Liquids, and Gases	**Looking at Liquids**, Activity 12 **Water Cycle**, Activity 9, 11-13 *__Chemical Interactions__, Activity 2 Science Challenge, Science Extension *grade 6 unit

Chapter 11: Forms of Matter and Energy

Matter can be combined physically or chemically, resulting in changes in properties. Chemical changes produce a new substance. Energy, which can be potential or kinetic, has multiple forms and can be transformed from one form into another. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
4. Mixtures and Solutions	**Powders and Crystals**, Activity 5 *__Chemical Interactions__, Activity 3
5. Chemical Changes	**Powders and Crystals**, Activity 6-9 *__Chemical Interactions__, Activity 11-13
6. Acids and Bases	**Looking at Liquids**, Activity 12 **Pollution**, Activity 8

7. Matter and Energy	*__Chemical Interactions__, Activity 10, 11 __Solar Energy__, Activity 2 __Electrical Circuits__, Activity 3 Science and the Arts *__Chemical Interactions__, Activity 7 Science Challenge *__Newton's Toy Box__, Activity 8, 10 *grade 6 unit

UNIT F

Chapter 12: Newton's Laws of Motion

All matter has inertia, a tendency to resist a change in motion. Newton's laws describe that objects in motion stay in motion and those at rest stay at rest, unless acted upon by an outside force. There is a direct relation between the amount of force used and the change in motion.
(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)

LESSON	*DSM II*
1. Newton's First Law	*__Newton's Toy Box__, Activity 1, 5, 7-9
2. Newton's Second and Third Laws	*__Newton's Toy Box__, Activity 3, 4, 11, 12, 13 __Flight and Rocketry__, Activity 9, 12
3. Newton's Law of Gravitation	*__Newton's Toy Box__, Activity 2, 3 *__Famous Scientists__, Activity 3 *grade 6 unit

Chapter 13: Sound Energy

Vibrations produce sounds that vary in loudness, pitch, and quality. Sounds can be reflected and travel through matter at given speeds, allowing for many useful applications.
(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)

LESSON	*DSM II*
4. Sound Waves	__Sound__, Activity 1-3
5. Pitch and Loudness	__Sound__, Activity 6-11
6. Reflection and Absorption	__Sound__, Activity 5, 5 Reinforcement

Chapter 14: Light Energy

Light travels in straight paths, which interact with mirrors and lenses. Wavelengths of light are in visible (colors) and invisible ranges, each with properties that make it useful.
(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)

LESSON	*DSM II*
7. Light and Mirrors	__Lenses and Mirrors__, Activity 1-7
8. Light and Lenses	__Lenses and Mirrors__, Activity 8-10

9. Light and Color	**Color and Light**, Activity 10-12
10. Invisible Light	**Color and Light**, Activity 1 Science Challenge Activity 1 Science, Technology, and Society Activity 5 Science, Technology, and Society

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SCIENCE PROCESS SKILLS

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SCIENCE PROCESS SKILLS	*DSM II*
Observe	**Rocks and Minerals,** Activity 1, 3 **Color and Light**, Activity 1, 2 **Famous Scientists**, Activity 1
Infer	**You and Your Body**, Activity 5 **Fungi-Small Wonders**, Activity 9, 10 **Earth Processes**, Activity 1
Classify	**Rocks and Minerals,** Activity 4 **Weather Forecasting,** Activity 10 **Astronomy,** Activity 11
Measure	**Solar Energy**, Activity 4 **Newton's Toy Box**, Activity 7, 8 **Weather Forecasting**, Activity 3, 5
Use Numbers	**Simple Machines**, Activity 1 **Earth, Moon, and Sun**, Activity 4 **Oceans**, Activity 3, 4
Communicate	**If Shipwrecks Could Talk**, Activity 9 **Erosion**, Activity 6 **Lenses and Mirrors**, Activity 12
Predict	**Simple Machines**, Activity 4 **Electrical Connections**, Activity 10 **Color and Light**, Activity 2, 9
Interpret Data	**Chemical Interactions,** Activity 2 **Electromagnetism,** Activity 6 **Plants in Our World,** Activity 11
Form a Hypothesis	**Electrical Connections,** Activity 10 **Lenses and Mirrors,** Activity 12 **Pond Life,** Activity 12
Use Variables	**Solar Energy,** Activity 6 **Pond Life,** Activity 12 **Plants in Our World,** Activity 3

Experiment	**Chemical Interactions,** Activity 12 **Lenses and Mirrors,** Activity 12 **Fungi-Small Wonders,** Activity 7
Make a Model	**If Shipwrecks Could Talk,** Activity 4 **Erosion,** Activity 5 **You and Your Body,** Activity 2
Define Based on Observations	**Electromagnetism**, Activity 6 **Chemical Interactions**, Activity 3 **Simple Machines**, Activity 1

UNIT A

Chapter 1: The Plant Kingdom

Examples of investigations and activities that correlate to the lessons are listed. A citation does not reflect all of the activities or investigations from the program that might address a particular lesson.

The modern classification systems stem back from the work of Carolus Linnaeus in the 1700s. The plant kingdom includes organisms that have chloroplasts and can produce food. Plants include both nonvascular and vascular species, all of which are able to get the materials they need to carry out their life processes without moving about. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
1. The Kingdoms of Life	*__Plant and Animal Life Cycles__, Activity 1 Science Challenge *__Insect Life__, Activity 6 *__Dinosaur Classification__, Activity 9, 10
2. Classifying Plants	*__Plant and Animal Life Cycles__, Activity 8, 9 Activity 9 Science Extension, Science Challenge __Pond Life__, Activity 10 __Fungi-Small Wonders__, Activity 1-4 *grade 5 unit

Chapter 2: The Animal Kingdom

The animal kingdom is comprised of multicelled organisms that cannot make their own food. The most general groupings are those with and those without backbones. These organisms have diverse means of reproduction. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
3. Invertebrates	__Oceans__, Activity 11, 12 __Pond Life__, Activity 5 Science Extension Activity 8, 8 Science Extension *__Insect Life__, Activity 6

4. Vertebrates	**Pond Life**, Activity 4 Science Extension, Activity 9, 9 Science Extension
5. Reproduction and Growth	*__Animal Behavior__, Activity 1 __*Insect Life__, Activity 2, 7 *__Plant and Animal Life Cycles__, Activity 4, 5, 10, 11 *grade 5 unit

UNIT B

Chapter 3: Cells

Cells are organized within the organ systems of organisms, and organisms are parts of vaster systems, Earth's ecosystems. The diversity of Earth's land and water allows for a diversity of life. The common unit of life, the cell, is a complex organization of parts that work carrying out the cell's life activities. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
1. From Cells to Ecosystems	**Plants in Our World**, Activity 1 **DNA-From Genes to Proteins**, Activity 3, 4 *__Plant and Animal Life Cycles__, Activity 1
2. Comparing Earth's Biomes	**Pond Life**, Activity 1, 3, 4
3. Parts of a Cell	**Plants in Our World**, Activity 1 **DNA-From Genes to Proteins**, Activity 3, 4
4. Movement and Nutrition In Cells	**Plants in Our World**, Activity 8-10
5. Cells Divide and Grow	**DNA-From Genes to Proteins**, Activity 5 Science Extension Activity 3 Science and Health *grade 5 unit

Chapter 4: Inheriting Traits

Traits are passed from generation to generation through DNA that is duplicated as cells divide. The expression of these traits is determined by the patterns of inheritance they follow.
(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)

LESSON	*DSM II*
6. The History of Genetics	**DNA-From Genes to Proteins**, Activity 1 Science Challenge, 3 Science Challenge
7. Predicting Traits	**DNA-From Genes to Proteins**, Activity 3 Science Challenge, Science Extension
8. How DNA Controls Traits	**DNA From Genes to Proteins**, Activity 5 Science Extension, 5-10
9. Using Genetics	

	DNA-From Genes to Proteins, Activity 1, 2, 3 Science Extension, Science Challenge, 12, 13

UNIT C

Chapter 5: The Earth-Moon System

The interaction between Earth, the Moon, and the Sun produces cycles of day and night, the seasons, and other natural occurrences. Astronomers observe the sky in order to explain different parts of the universe. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
1. The Tools of Astronomers	**Astronomy**, Activity 6 Science, Technology, and Society Activity 9 Activity 9 Science, Technology, and Society **Famous Scientists**, Activity 4
2. Earth and the Sun	**Earth, Moon, and Sun**, Activity 89, 9 **Solar Energy**, Activity 2 **Astronomy**, Activity 5
3. The Moon in Motion	**Earth, Moon, and Sun**, Activity 10-12 Activity 1 Science Challenge

Chapter 6: The Solar System

Our solar system consists of the Sun, the inner and outer planets, and the asteroid belt. The Sun is a yellow star. Stars vary by color based on their surface temperature. There are billions of stars in our galaxy, the Milky Way, and in the billions of other galaxies in the universe.
(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)

LESSON	*DSM II*
4. The Inner Solar System	**Earth, Moon, and Sun**, Activity 3, 4 *__Solar System__, Activity 1, 6, 8, 10
5. The Outer Solar System	**Earth, Moon, and Sun**, Activity 3, 4 *__Solar System__, Activity 1, 6, 8, 10
6. Stars	**Astronomy**, Activity 10 *__Solar System__, Activity 11
7. Galaxies and Beyond	**Astronomy**, Activity 11, 12 *__Solar System__, Activity 11 *grade 5 unit

UNIT D

Chapter 7: Earth's Moving Crust

Earth's crust is made up of plates that move, causing earthquakes, volcanic eruptions, and the raising of mountains and other surface features. The forces of weathering and erosion add to the continuous reshaping of the surface by breaking down landforms and producing soil.
(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)

LESSON	*DSM II*
1. Moving Plates	**Earth Processes**, Activity 1, 11-14
2. Earthquakes	**Earth Processes**, Activity 8, 8 Science and Health, 9
3. Volcanoes	**Earth Processes**, Activity 5, 5 Science Extension, Activity 10

Chapter 8: How Earth Changes Over Time

Constructive forces and destructive forces build and shape landforms, produce soil, and continually recycle Earth's rocks. Older rocks weather into sediments that are buried, heated, and changed into other rocks. Rocks provide scientists with relative and absolute ages that help measure the eras of Earth's history. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
4. Making Mountains and Soil	**Earth Processes**, Activity 3, 7 **Erosion**, Activity 1-3
5. Erosion and Deposition	**Erosion**, Activity 2, 5, 6, 9-12
6. The Rock Cycle	**Earth Processes**, Activity 4-6
7. Geologic Time	**Earth Processes**, Activity 2 Science Challenge

UNIT E

Chapter 9: Properties and Changes of Matter

All matter is made up of atoms, which make up all elements. Each element has unique properties by which it is classified into the periodic table. A compound is formed when substances react chemically. In chemical reactions, total mass is conserved. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
1. Physical Properties of Matter	**Chemical Interactions**, Activity 1,2 **Famous Scientists**, Activity 1
2. Elements and Atoms	**Chemical Interactions**. Activity 4, 5
3. Chemical Changes	**Chemical Interactions**, Activity 5, 6, 7, 8, 11-13 Activity 7 Science Challenge

Chapter 10: Heat Energy

Heat is a form of energy that can change the temperature of materials. Adding or removing heat can make matter expand or contract, and can change the state of matter. Energy has many forms and can be obtained from many sources.
(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)

LESSON	*DSM II*
4. Temperature and Heat	**Solar Energy**, Activity 2, 11, 12 **Famous Scientists**, Activity 7 **Earth Processes**, Activity 12 Science Challenge
5. How Heat Affects Matter	**Solar Energy**, Activity 2 *__Water Cycle__, Activity 9, 11-13 *__Powders and Crystals__, Activity 9
6. Sources of Energy	**Solar Energy**, Activity 2, 10 **Oceans**, Activity 9 Science, Technology, and Society
	*grade 5 unit

Chapter 11: Electricity and Magnetism

Interactions between charged particles produce electricity, both static and current. Magnets and chemical reactions can cause charged particles to move in a circuit. Electricity can be carried great distances for distribution to towns and cities.
(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)

LESSON	*DSM II*
7. Static Electricity	**Electrical Connections**, Activity 1
8. Circuits	**Electrical Connections**, Activity 2, 3, 8-10 **Electromagnetism**, Activity 5
9. Electromagnets	**Electrical Connections**, Activity 4 **Electromagnetism**, Activity 5-11
10. Using Electricity	**Electrical Connections**, Activity 7 Science at Home Activity 9 Science Challenge Activity 10 Science, Technology, and Society **Electromagnetism**, Activity 8 Science, Technology, and Society Activity 9 Science, Technology, and Society

UNIT F

Chapter 12: Objects in Motion

All matter has inertia, a tendency to resist a change in motion. Speed, velocity, and acceleration are variables that describe motion. Force is a function of mass and acceleration that can change the direction and magnitude of motion. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
1. Speed and Distance	**Newton's Toy Box**, Activity 7-9
2. Forces and Motion	**Newton's Toy Box**, Activity 1-3, 5, 7-9
3. Acceleration and Momentum	**Newton's Toy Box**, Activity 3, 9, 11-13

Chapter 13: Work and Machines

Energy can be potential or kinetic. Each of these can change from one form to another. Work is a function of energy. Simple machines can decrease the amount of force needed to do work or change the direction of the force. *(Concepts listed in the chapter overview are included in the lesson correlations where appropriate.)*

LESSON	*DSM II*
4. Energy and Work	**Simple Machines**, Activity 1 **Newton's Toy Box**, Activity 10
5. How Levers Work	**Simple Machines**, Activity 2, 5, 8 **Famous Scientists**, Activity 2
6. How Inclined Planes Work	**Simple Machines**, Activity 9-11