



**Curriculum Map
Grade 2 Science
Saugus Public Schools
Saugus, MA 01906**

*Monthly Module assuming 2 week science coverage and 2 week social studies coverage

September

Massachusetts Performance Standards

Physical Science 1: Sort objects by observable properties such as size, shape, color, weight, and texture.

Physical Science 2: Identify objects and materials as solid, liquid, or gas. Recognize that solids have a definite shape and that liquids and gases take the shape of their container.

Technology Engineering 1.1: Identify and describe characteristics of natural materials (e.g., wood, cotton, fur, wool) and human-made materials (e.g., plastic, Styrofoam).

Technology Engineering 1.2: Identify and explain some possible uses for natural materials (e.g., wood, cotton, fur, wool) and human-made materials (e.g., plastic, Styrofoam).

UNIT E: Matter and Energy

Matter
Matter All Around
Chapter 9 Lesson 1 pages E4 – E9

Objectives (Students will...)

- **Explore** and **observe** matter inside containers
- **Define** the term matter and mass
- **Describe** matter by its observable properties

Essential Question

What is matter?

Teacher Resources

- Macmillan, McGraw-Hill 2005, Science Grade 2
- Big Book pages E4 – E9
- Activity Resources pages 106-108, 127, 128
- Reading in Science Resources pages 233-238
- Vocabulary Cards
- Reading Aid Transparency

Media and Technology Resources

- Visual Aid Transparency
- Explore Video
- Science Card 28

Evaluation/Activities

Lecture/Demonstration: Each concept/topic will be introduced by the teacher using any resources that are available.

Class work: To be done on each topic/concept as needed for understanding.

Homework: To be given daily on each introduced topic as determined by the teacher.

Review: All weekly concepts will be reviewed and connections to concepts should be made by the students.

Quiz: Formal assessments will be given as warranted by the curriculum.

Lab Explore Activity: How can you tell what is inside? page E5

Lesson Completion Date:

Technology Used/ Date Used:

Completed By:

Comments:

October

Massachusetts Performance Standards

Physical Science 2: Identify objects and materials as solid, liquid, or gas. Recognize that solids have a definite shape and that liquids and gases take the shape of their container.

Technology Engineering 1.1: Identify and describe characteristics of natural materials (e.g., wood, cotton, fur, wool) and human-made materials (e.g., plastic, Styrofoam).

Technology Engineering 1.2: Identify and explain some possible uses for natural materials (e.g., wood, cotton, fur, wool) and human-made materials (e.g., plastic, Styrofoam).

UNIT E: Matter and Energy

Matter
Three States of Matter
Chapter 9 Lesson 2 pages E10 – E17

Objectives (Students Will...)

- **Explore** and **order** the mass of objects
- **Identify** and **distinguish** differences among solids, liquids, and gases

Essential Question

What are the three different states of matter?

Teacher Resources

- Macmillan McGraw-Hill 2005, Science Grade 2
- Big Book pages E10 –E17
- Activity Resources pages 109-111
- Reading in Science Resources pages 241 & 242
- Vocabulary Cards
- Reading Aid Transparency E2

Media Resources

- Visual Aid Transparency # 25
- Science Music CD: Jelly in the Bowl/ I have a car
- Science Card # 25

Evaluation/Activities

Class work: To be done on each topic/concept as needed for understanding.

Homework: To be given daily on each introduced topic as determined by the teacher.

Review: All weekly concepts.

Quiz: Assessments given as warranted by the curriculum.

Lab Explore Activity: How can you put matter in order? page E11

Lesson Completion Date:

Technology Used/ Date Used:

Completed By:

Comments:

November

Massachusetts Performance Standards

Physical Science 3: Describe the various ways that objects can move, such as in straight line, zigzag, back-and-forth, round-and-round, fast, and slow.

Physical Science 4: Demonstrate that the way to change the motion of an object is to apply a force (give it a push or a pull). The greater the force, the greater the change in the motion of the object.

Physical Science 5: Recognize that under some conditions, objects can be balanced.

Technology Engineering 1.3: Identify and **describe** the safe and proper use of tools and materials (e.g., glue, scissors, tape, ruler, paper, toothpicks, straws, spools) to construct simple structures.

Technology Engineering 2.1: Identify tools and simple machines used for a specific purpose, e.g., ramp, wheel, pulley, lever.

UNIT F: Watch It Move

Forces and Machines

Pushes and Pulls

Forces and Change

Chapter 11 Lesson 1 & 2 pages F4 – F17

Objectives (Students Will...)

- **Explore** and **measure** how far different things move
- **Define** the terms force and gravity
- **Understand** different ways that objects can move and change directions
- **Explore** and **compare** how surfaces can change the force on an object
- **Define** and **understand** friction
- **Recognize** how a force and the direction of a force can change

Essential Question

How do you change the motion of an object?

Teacher Resources

- Macmillan McGraw-Hill 2005, Science Grade 2
- Big Book pages F4 – F10
- Activity Resources pages 130 – 135, 148, 150
- Reading in Science pages 273 – 284
- Vocabulary Cards
- Science Center Cards #31, 32
- Reading Aid Transparency F1
- School to Home Activities page 35

Media Resources

- Explore Activity Video
- CD-ROM

Evaluation/Activities

Class work: To be done on each topic/concept as needed for understanding.

Homework: To be given daily on each introduced topic as determined by the teacher.

Review: All weekly concepts.

Quiz: Assessments given as warranted by the curriculum.

Lab Explore Activity: How far can different things move page F5

Explore Activity: How can you slow down a force? page F11

Lesson Completion Date:

Technology Used/ Date Used:

Completed By:

Comments:

December

Massachusetts Performance Standards

Physical Science 3: Describe the various ways that objects can move, such as in straight line, zigzag, back-and-forth, round-and-round, fast, and slow.

Physical Science 4: Demonstrate that the way to change the motion of an object is to apply a force (give it a push or a pull). The greater the force, the greater the change in the motion of the object.

Physical Science 5: Recognize that under some conditions, objects can be balanced.

Technology Engineering 1.3: Identify and **describe** the safe and proper use of tools and materials (e.g., glue, scissors, tape, ruler, paper, toothpicks, straws, spools) to construct simple structures.

Technology Engineering 2.1: Identify tools and simple machines used for a specific purpose, e.g., ramp, wheel, pulley, lever.

UNIT F: Watch It Move

Forces and Machines
Position and Motion of Objects (Levers)
Chapter 11 Lesson 3 pages F18 – F23

Objectives

- **Explore** and **investigate** how levers lift objects
- **Define** simple machines and **understand** how a lever works

Essential Question

How does a simple machine use forces to move an object?

Teacher Resources

- Macmillan McGraw-Hill 2005, Science Grade 2
- Big Book page F18 – F23
- Activity Resources pages 136-138
- Reading in Science Resources pages 285-290
- Vocabulary Cards
- Reading Aid Transparency F3
- Science Center Card # 33

Media Resources

- Visual Aid Transparency 30
- Explore Activity Video – How can force help you lift things?

Evaluation/Activities

Class work: To be done on each topic/concept as needed for understanding.
Homework: To be given daily on each introduced topic as determined by the teacher.
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.
Lab Explore Activity: How can force help you lift things? page F19

Lesson Completion Date:

Technology Used/ Date Used:

Completed By:

Comments:

January

Massachusetts Performance Standards

Earth and Space Science 1: Recognize that water, rocks, soil, and living organisms are found on the earth's surface.

Technology Engineering 1.1: Identify and **describe** characteristics of natural materials (e.g., wood, cotton, fur, wool) and human-made materials (e.g., plastic, Styrofoam).

UNIT C: Changes on Earth

Weather and Earth Changes
Earth Can Change Slowly
Chapter 5 Lesson 2 pages C12 – C17

Objectives

- **Explore** and **communicate** how rocks can change
- **Understand** erosion of rocks, sand and soil
- **Explain** earthquakes, landslides and volcanoes

Essential Question

What are some ways that the Earth's surface can change?

Teacher Resources

- Macmillan McGraw-Hill 2005, Science Grade 2
- Big Book pages C12 – C17
- Activity Resources pages 61 - 63, 76, 77
- Reading in Science Resources pages 133- 138
- Vocabulary Cards
- Science Center Card #13

Media Resources

- Reading Aid Transparency C2
- Explore Activity Video

Evaluation/Activities

Class work: To be done on each topic/concept as needed for understanding.

Homework: To be given daily on each introduced topic as determined by the teacher.

Review: All weekly concepts.

Quiz: Assessments given as warranted by the curriculum.

Lab Explore Activity: How can you change rocks? page C13

Lesson Completion Date:

Technology Used/ Date Used:

Completed By:

Comments:

February

Massachusetts Performance Standards

Earth and Space Science 1: Recognize that water, rocks, soil, and living organisms are found on the earth's surface.

Earth and Space Science 2: Understand that air is a mixture of gases that is all around us and that wind is moving air.

Technology Engineering 1.1: Identify and **describe** characteristics of natural materials (e.g., wood, cotton, fur, wool) and human-made materials (e.g., plastic, Styrofoam).

UNIT C: Changes on Earth

Weather and Earth Changes
Earth Can Change Quickly
Chapter 5 Lesson 3 pages C18-C23

Objectives

- **Explore** and **observe** how earthquakes change the earth
- **Explain** earthquakes, landslides and volcanoes

Objectives

- **Explore** and **observe** how earthquakes change the earth
- **Explain** earthquakes, landslides and volcanoes

Teacher Resources

- Macmillan McGraw-Hill 2005, Science Grade 2
- Big book pages C18-23
- Activity Resources pages 64-66
- Reading in Science Resources pages 139 – 145
- Vocabulary Cards

Teacher Resources

- Macmillan McGraw-Hill 2005, Science Grade 2
- Big book pages C18-23
- Activity Resources pages 64-66
- Reading in Science Resources pages 139 – 145
- Vocabulary Cards

Evaluation/Activities

Class work: To be done on each topic/concept as needed for understanding.
Homework: To be given daily on each introduced topic as determined by the teacher.
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.

Lab Explore Activity: How can Earth's surface change? page C19

Evaluation/Activities

Class work: To be done on each topic/concept as needed for understanding.
Homework: To be given daily on each introduced topic as determined by the teacher.
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.

Lab: Explore Activity- How can Earth's surface change? page C19

March

Massachusetts Performance Standards

Life Science 1: Recognize that animals (including humans) and plants are living things that grow, reproduce, and need food, air, and water.

Life Science 3: Recognize that animals (including humans) and plants are living things that grow, reproduce, and need food, air, and water.

Life Science 4: Describe ways in which many plants and animals closely resemble their parents in observed appearance.

Life Science 8: Identify the ways in which an organism's habitat provides for its basic needs (plants require air, water, nutrients, and light; animals require food, water, air, and shelter).

Technology Engineering 1.1: Identify and **describe** characteristics of natural materials (e.g., wood, cotton, fur, wool) and human-made materials (e.g., plastic, Styrofoam).

Technology Engineering 1.2: Identify and **explain** some possible uses for natural materials (e.g., wood, cotton, fur, wool) and human-made materials (e.g., plastic, Styrofoam).

UNIT: Plants and Animals

Plants
Plants are Living Things
Chapter 1 Lesson 1 pages A4-A9

Objectives

- **Explore** and **classify** living and nonliving things.
- **Identify** the needs of living things.
- **Identify** how plants are alike and different

Essential Question

Explain why plants are living things.

Teacher Resources

- Macmillan McGraw-Hill 2005, Science Grade 2
- Big book pages A4-A9
- Activity Resources pages 4-6
- Reading in Science Resources pages 11-16
- Home to School Activities page 3
- Vocabulary Cards
- Reading Aid Transparency Science Center Card 1

Media Resources

- Visual Aid Transparency
- Explore Activity Video-Which of these are living?

Evaluation/Activities

Class work: To be done on each topic/concept as needed for understanding.
Homework: To be given daily on each introduced topic as determined by the teacher.
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.
Lab Explore Activity: Which of these is living? page A5

Lesson Completion Date:

Technology Used/ Date Used:

Completed By:

Comments:

April

Massachusetts Performance Standards

Life Science 1: Recognize that animals (including humans) and plants are living things that grow, reproduce, and need food, air, and water.

Life Science 3: Recognize that animals (including humans) and plants are living things that grow, reproduce, and need food, air, and water.

Life Science 4: Describe ways in which many plants and animals closely resemble their parents in observed appearance.

Life Science 8: Identify the ways in which an organism's habitat provides for its basic needs (plants require air, water, nutrients, and light; animals require food, water, air, and shelter).

Technology Engineering 1.1: Identify and **describe** characteristics of natural materials (e.g., wood, cotton, fur, wool) and human-made materials (e.g., plastic, Styrofoam).

Technology Engineering 1.2: Identify and **explain** some possible uses for natural materials (e.g., wood, cotton, fur, wool) and human-made materials (e.g., plastic, Styrofoam).

UNIT A: Plants and Animals

Plants
Parts of Plants
Chapter 1 Lesson 2 pages A10-A13

Objectives

- **Explore** and **predict** how plants get light.
- **Identify** the parts of plants as leaves, stem, roots, fruits and seeds

Essential Question

How do parts of a plant help the plant get what it needs?

Teacher Resources

- Macmillan McGraw-Hill 2005, Science Grade 2
- Big book pages A10-A13
- Activity Resources pages 4-6
- Reading in Science Resources pages 11-16
- School to Home Activities page 3
- Vocabulary Cards
- Science Center Card 2
- Visual Aid Transparency

Media Resources

- Reading Aid Transparency
- The Science Newsroom
- Explore Activity Video-What do leaves need?
- CD Rom Chapter 2 Classifying

Evaluation/Activities

Class work: To be done on each topic/concept as needed for understanding.
Homework: To be given daily on each introduced topic as determined by the teacher.
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.

Lab Explore Activity: What do leaves need? page A11

Lesson Completion Date:

Technology Used/ Date Used:

Completed By:

Comments:

May

Massachusetts Performance Standards

Life Science 1: Recognize that animals (including humans) and plants are living things that grow, reproduce, and need food, air, and water.

Life Science 3: Recognize that animals (including humans) and plants are living things that grow, reproduce, and need food, air, and water.

Life Science 4: Describe ways in which many plants and animals closely resemble their parents in observed appearance.

Life Science 8: Identify the ways in which an organism's habitat provides for its basic needs (plants require air, water, nutrients, and light; animals require food, water, air, and shelter).

Technology Engineering 1.3: Identify and describe the safe and proper use of tools and materials (e.g., glue, scissors, tape, ruler, paper, toothpicks, straws, spools) to construct simple structures.

Technology Engineering 2.1: Identify tools and simple machines used for a specific purpose, e.g., ramp, wheel, pulley, lever.

UNIT A: Plants and Animals

Plants
Plants Make New Plants
Chapter 1 Lesson 3 pages A14-A15

Objectives

- **Explore** and **infer** that seeds come from the fruits of plants
- **Recognize** how seeds and fruits are made.
- **Understand** the life cycle of a plant.

Essential Question

Explain how a plant grows, lives and dies.

Teacher Resources

- Macmillan McGraw-Hill 2005, Science Grade 2
- Big book pages A14-A19
- Activity Resources pages 7-9, 25
- Reading in Science Resources pages 17-22
- Home to School Activities page 4
- Vocabulary Cards
- Visual Aid Transparency 2
- Science Center Card 4

Media Resources

- Reading Aid Transparency A3
- CD-ROM – Explore Activity Videotape: What is inside an apple?
- The Science Newsroom
- www.science.mmhschool.com

Evaluation/Activities

Class work: To be done on each topic/concept as needed for understanding.
Homework: To be given daily on each introduced topic as determined by the teacher.
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.

Lab Explore Activity: What is inside and apple? page A15

Lesson Completion Date:

Technology Used/ Date Used:

Completed By:

Comments:

June

Massachusetts Performance Standards

Life Science 1: Recognize that fossils provide us with information about living things that inhabited the earth years ago.

Technology Engineering 1.1: Identify and **describe** characteristics of natural materials (e.g., wood, cotton, fur, wool) and human-made materials (e.g., plastic, Styrofoam).

Technology Engineering 1.2: Identify and **explain** some possible uses for natural materials (e.g., wood, cotton, fur, wool) and human-made materials (e.g., plastic, Styrofoam).

UNIT C: Changes on Earth

Earth Yesterday and Today
Life on Earth Changes
Chapter 6 Lesson 6 pages C30-C35

Objectives

- **Explore** and **draw** a conclusion about how imprints are made.
- **Define** fossils and understand how they are formed and what they tell us about the past.

Essential Question

How can fossils give us clues about plants and animals that lived long ago?

Teacher Resources

- Macmillan McGraw-Hill 2005, Science Grade 2
- Big book pages C30-C35
- Activity Resources pages 67-69
- Reading in Science Resources pages 153-158
- Home to School Activities page 17
- Vocabulary Cards
- Visual Aid Transparency

Media Resources

- Reading Aid Transparency
- The Science Newsroom CD ROM Dinomatch
- www.ammh.org/resources/mhscience

Evaluation/Activities

Class work: To be done on each topic/concept as needed for understanding.
Homework: To be given daily on each introduced topic as determined by the teacher.
Review: All weekly concepts.
Quiz: Assessments given as warranted by the curriculum.

Lab Explore Activity: How can we get clues from prints? page C31

Lesson Completion Date:

Technology Used/ Date Used:

Completed By:

Comments: