

Wells Elementary School
Grade 2 Curriculum
Science

Grade Level: Second Grade

Topic: How Butterflies Change as They Grow
BUGS-INSECTS

Timeline: September

Focus Skills/Strategies:

Science Talks

Observations

Investigation

Questioning

Standards (Next Gen Science Standards):

1-LS3-1 Make observations to construct an evidence-based account that young plants and animals are like, but not exactly like their parents.

Common Experiences	Learning Targets (“I Can” statements)
Observing the life cycle of a butterfly. • Live or on video	I can describe the 4 different stages in the life cycle of a butterfly. (egg, caterpillar, chrysalis, adult)
Create a model of the life cycle.	I can create a model of the butterfly life cycle.
Explain the migration pattern of a butterfly	I can explain why butterflies migrate and what migration means.

Grade Level: Second

Topic: Seed Dispersal

Timeline: October

Focus Skills/Strategies:

Science Talks
Observations
Investigation
Questioning
Experimenting

Standards (Next Gen Science Standards):

NGSS 2-LS2.2: Develop a simple model that mimics the function of an animal in dispersing seeds or pollinating plants.

Common Experiences	Learning Targets (“I Can” statements)
Students will engage in stem activities by creating seed dispersal models.	I can explain how seeds are dispersed. I can create a model that mimics seed dispersal. I can name the different kinds of dispersal.
Taking a walk through the woods to observe the different types of seeds.	I can observe different types of seeds.

Grade Level: Second Grade

Topic: Biomes and Habitats

Timeline: January

Focus Skills/Strategies:

Science Talks
Observations
Investigation
Questioning

Standards (Next Gen Science Standards):

Use observations to describe patterns of what plants and animals (including humans) need to survive.
NGSS 2-LS4.1 Make observations of plants and animals to compare the diversity of life in different habitats.

Common Experiences	Learning Targets ("I Can" statements)
VR experience Videos Read Alouds	I can describe the different biomes. I can describe the characteristics of the biomes. I can explain how animals use the features in the habitat to survive. I can define what a biome is.

Grade Level: Second Grade**Topic: States of Matter****Timeline: February****Focus Skills/Strategies:**

Science Talks
Observations
Investigation
Questioning
Experimenting

Standards (Next Gen Science Standards):

2PS1.1 Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.

2PS1.2 Analyze data obtained from testing different materials to determine which materials have the properties that are best suited for an intended purpose.

2PS1.3 Make observations to construct an evidence-based account of how an object made of a small set of pieces can be disassembled and made into a new object.

2PS1.4 Construct an argument with evidence that some changes caused by heating or cooling can be reversed and some cannot.

Common Experiences	Learning Targets ("I Can" statements)
Magic School Bus Video Mystery Science Video STEM activities	I can explain the properties of the three states of matter. I can explain the difference between solid, liquid, and gas. I can describe the way matter can change from one state to another. I can classify substances as solid, liquid, and gases.

Grade Level: 2

Topic: Vernal Pool/Frogs

Timeline: May

Focus Skills/Strategies:

Science Talks
 Observations
 Investigation
 Questioning
 Experimenting
 Research Project

Standards (Next Gen Science Standards): Use observations to describe patterns of what plants and animals (including humans) need to survive.

NGSS 2-LS4.1 Make observations of plants and animals to compare the diversity of life in different habitats.

Common Experiences	Learning Targets (“I Can” statements)
Explore Vernal Pool	I can describe the life cycle of a frog. I can compare and contrast a frog and toad.
Look Back and Write Frog or Toad Research	I can make inferences about frogs and support my statements using evidence, details, and examples.

Grade Level: Second Grade
Topic: Map Skills and Landforms
Timeline: May and June

Focus Skills/Strategies: Science Talks Observations Investigation Questioning
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Standards (Maine Learning Results): 2-ESS2-2. Develop a model to represent the shapes and kinds of land and bodies of water in an area.
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Common Experiences	Learning Targets (“I Can” statements)
-Draw a map with directions and include a key -Create a 3-D map of quick changes to land -Define geography	I can develop a model to represent the shape and kinds of land/bodies of water in an area. I can identify the different kinds of landforms.

I can compare and contrast different landforms.