

IGS Curriculum: 3rd Grade

*Connections to Curriculum Frameworks and Next Generation Science Standards:
(including, but not limited to)*

- Science:
 - Recognize that plants and animals go through predictable life cycles (birth, growth, development, reproduction, and death)
 - Recognize that all living things are part of a food chain
 - *Engineering Design*: Plan and carry out tests in which variables are controlled and failure points are considered to identify aspects of a model or prototype that can be improved
 - *Earth and Human Activity*: Make a claim about the merit of a design solution that reduces the impacts of a weather-related hazard.
 - *Earth's Systems*: Represent data in tables and graphical displays to describe typical weather conditions expected during a particular season.
 - *Biological Evolution*: Construct an argument with evidence that in a particular habitat some organisms can survive well, some survive less well, and some cannot survive at all.
 - *Biological Evolution*: Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change.
 - *Structures and Processes*: Develop models to describe that organisms have unique and diverse life cycles but all have in common birth, growth, reproduction, and death.
- Social Studies:
 - Identify who the Pilgrims were and that they left Europe to seek religious freedom (Mayflower Compact, challenges in setting, first Thanksgiving)

Connections to IGS Learning Goals:

- Appreciate the farming profession
- Know that everyone can grow food
- Understand the connection between healthy soil, healthy plants and healthy people

Essential Questions:

- What is soil?
- Where does soil come from?
- How does soil form?
- What is waste?
- Where does food come from?
- Why do we have farms?
- How do humans and plants affect each other?
- How does food build community?

Fall (September – November):

Lessons:

- Explore soil, identify types, categorize
 - Soil in a Jar
 - Particle Game
- Fall soil observation in the garden– temperature, life/activity in soil
- Create soil food web
- Explore worm bins (review of 2nd grade unit)
- Bud to Fruit
- Introduction to gleaning, hunger on the island
- Introduction to Colonial Gardens/kitchen gardens
 - Harvest and tasting
- Seed saving (Wampanoag History/Colonial America)
- Colonial Grains
 - Oats
- Celebrate the harvest (Colonial America)
 - Colonial Feast
 - Corn Husk Dolls
- Popcorn Math
 - Harvest corn
 - Observational drawings
 - Estimation

Field Trips:

- Gleaning in October/November
- “Compost” @ The Farm Institute, or other island farm

Winter (December – March):

Lessons:

- Worm bin observation
 - Worm life cycle
- Soil experiments in greenhouse
 - Sand, clay, silt, organic matter/compost
- Winter soil observation – track changes in temperature, life in the soil
- Climate change and food production
- Introduction to herbs and weeds
 - Starting herbs
 - Researching herbs
 - Writing and reporting
 - Annual vs. Perennial

Field Trips:

- “Climates and microclimates” @ Thimble Farm Greenhouse

Spring (April - June):

Lessons:

- Harvest and use worm castings in greenhouse and garden
- Create a weather station in the garden
- Spring soil observation – track changes in temperature, life in the soil
- Build a colonial garden bed (choose theme)
 - Three Sisters Garden
 - Herb garden
 - Popcorn
 - Perennial vegetables (ie sunchokes)
- Agriculture during the Revolutionary War
 - Farm Journals (MV Museum)
 - Grey's Raid on the island
- Hunger, food justice on the island

Field Trips:

- "Compost/soil on a farm" @ the Allen Farm or Farm Institute
- Grey's Raid – stories from island farmers @ Native Earth Teaching Farm, Allen Farm, or MV Museum