

IGS Curriculum: Biology

Objective: Students will design experiments and ask their own questions. The experiments will continue throughout the year, in the garden, greenhouse and classroom.

Essential Questions:

- *How can we grow food all year long?*
- *Where does food come from?*
- *What is food sovereignty?*
- *How has our food system changed over time?*
- *How can we make change through our food system?*
- *What do plants need?*

Fall (September – November)

Lessons:

- Plant Classification
 - Families exploration
 - Garden identification
 - Garden signs
- Classification of soil
 - Soil Food Web
 - Compost
 - Compost lab
 - Compost bin construction
 - Vermiculture
 - Worm bin construction and experiment
- Season extension experiments
 - Eliot Coleman
- Introduction to Seeds
 - GMO lesson
 - Seed saving, create seed packets
 - Heirloom grains
 - Seed bank
- Photosynthesis
- Designing winter beds

Field Trips:

“Compost” at The Farm Insitute, and other island farms

“Season Extension” at Thimble Farm, Allen Farm, and other island farms

Winter (December – March)

- Dissections

- Genetics
 - GMO debate
- Plant classification (review)
- Body Systems and Cell Biology

Spring (April - June)

- Design and plant garden beds
- Design an information booth for the garden
- Heirloom grains
 - Harvest fall crops
 - Plant spring crops

Field Trips:

“Animal Genetics” at The Farm Institute