

Unit 15: Preserving Mother Earth: Grade 4 - Organic Farming

Content Area: **Template**
Course(s):
Time Period: **Full Year**
Length: **FY**
Status: **Published**

Standards Alignment

New Jersey Student Learning Standards

Integration of Career Readiness, Life Literacies and Key Skills

CRP.K-12.CRP1	Act as a responsible and contributing citizen and employee.
CRP.K-12.CRP2	Apply appropriate academic and technical skills.
CRP.K-12.CRP3	Attend to personal health and financial well-being.
CRP.K-12.CRP4	Communicate clearly and effectively and with reason.
CRP.K-12.CRP5	Consider the environmental, social and economic impacts of decisions.
CRP.K-12.CRP6	Demonstrate creativity and innovation.
CRP.K-12.CRP7	Employ valid and reliable research strategies.
CRP.K-12.CRP8	Utilize critical thinking to make sense of problems and persevere in solving them.
CRP.K-12.CRP9	Model integrity, ethical leadership and effective management.
CRP.K-12.CRP10	Plan education and career paths aligned to personal goals.
CRP.K-12.CRP11	Use technology to enhance productivity.
CRP.K-12.CRP12	Work productively in teams while using cultural global competence.

Technology / Integration of Computer Science and Design Thinking

Interdisciplinary Connections: NJSLs for ELA, Social Studies, Science and/or Math Section

LA.K-12.NJSLSA.R9	Analyze and reflect on how two or more texts address similar themes or topics in order to build knowledge or to compare the approaches the authors take.
LA.RI.5	Reading Informational Text

LA.K-12.NJSLSA.W	Writing
LA.K-12.NJSLSA.W2	Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.
LA.RI.5.9	Integrate and reflect on (e.g., practical knowledge, historical/cultural context, and background knowledge) information from several texts on the same topic in order to write or speak about the subject knowledgeably.
LA.W.5.2	Write informative/explanatory texts to examine a topic and convey ideas and information clearly.

Integration of Diversity, Equity and Inclusion; Climate Change; Informational and Media Literacy **New Section**

see Crosswalks

21st Century Life and Careers

Stage I: Desired Results

Transfer/Overview/Rationale

Transfer / Overview / Rationale
Unit Rationale The purpose of this unit...

Meaning

Essential Questions

Essential Questions

How does the food I eat affect my health?

How does the food I eat affect the environment?

What is the difference between organic food and conventional food?

How can I change my eating habits to help preserve mother earth?

Enduring Understanding/Indicators of Understanding

Enduring Understanding/Indicators of Understanding

The food I eat impacts both my health and the environment.

Methods used to grow food can affect my health and the environment.

Acquisition (Student Learning Objectives)

Knowledge

Knowledge

Students will know...

Organic farming is a method of farming that avoids the use of chemicals and man-made fertilizers.

Chemicals and fertilizers used in growing food can enter the food chain and have a negative effect on the environment.

Concepts

Organic Farming

Conventional Farming

Fertilization

compost

Skills

Skills

Student will be skilled at ...

Students will be able to...

Identify the difference between organic farming and conventional farming.

Identify the benefits and drawbacks of organic farming.

Identify where organic products can be found.

Stage 3: Learning Plan

Resource and Mentor Texts

Resources and Mentor Texts

See links for a family letter and book list.

[Family Letter](#)

[Description of organic farming](#)

[Visit an Organic Farm Activity](#)

[Sam's Vacation - interactive website for pesticide-free farming](#)

[video of Wegman's Organic Research Farm](#)

[defining organic food](#)

[info on Organic farming](#)

[List of Environmental Books](#)

Formative Assessment Strategies

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Learning Activities/Unit of Study

Learning Activities/Unit of Study

1. Briefly research and compare/contrast organic farming methods to other methods of farming (see Links).

Research Organic Farming

Students will complete the Organic Farming WebQuest as a group. They will create and present a PowerPoint presentation to demonstrate what they have learned. The webquest, research guides, and PowerPoint templates can be found by clicking on the LINKS button.

Grow an Organic Herb Garden

As students are working on the webquest, start an herb garden (or other plants, like beans) from seeds (outside or in a container). The website below has a guide for caring for the garden, and short activities to complete. When the herbs are ready, make organic pizza or spaghetti!

Challenge the Class to EAT ORGANIC for a couple days!

[Description of Organic Farming](#)

[visit to an organic farm](#)

[Intro to Organic gardening](#)

[Organic Food Webquest](#)

[Research Guides](#)

[Historian PowerPoint](#)

[Farmer PowerPoint](#)

[Consumer PowerPoint](#)

[Environmentalist PowerPoint](#)

[Sam's vacation - Interactive Activity for pesticide-free farming](#)

[Benefits of eating organic](#)

[Composting slide show](#)

[Background info on Wegman's organic research farm](#)

[Kids Gardening Herbs](#)

[organic seed pots](#)

Modifications and/or Accommodations

Suggested Modifications (ELL, Sp. Ed, Gifted, At-risk of Failure)

English Language Learners

Native language support: The teacher provides auditory or written content to students in their native language.

Adjusted Speech: The teacher changes speech patterns to increase student comprehension. This could include facing the students, paraphrasing, clearly indicating the most important ideas, and speaking more slowly.

Visuals: The teacher uses graphics, pictures, visuals, and manipulatives. This helps ELL students better understand and comprehend the subjects at hand.

Front-Loading Vocabulary: The teacher front loads vocabulary. This means providing students with a list of important vocabulary words they will need to know for a book, lesson, etc. prior to the lesson being taught. Including pictures to go with the vocabulary words is also very beneficial for the students.

Special Education Students

Chunking: The teacher presents information in a way that makes it easy for students to understand and remember. Chunking is based on the presumption that our working memory is easily overloaded by excessive detail. The best way to deliver information is to organize it into meaningful units. Because students with special needs get overloaded easily, chunking is an effective strategy to use with them.

Checking for Understanding: It is important to constantly check for understanding, especially for students who have accommodations. Teachers want to make sure students understand the concepts being covered in a way that makes sense to them.

Extra time: The teacher provides students with special needs extra time to complete work or answer questions. It is important to give students enough time to process their thoughts.

Oral Reading: The teacher will read work orally to students. Class work such as tests and literature circles may need to be read aloud to the student.

Timers: The teacher will use timers as an instructional tool. The use of timers is beneficial for students who have trouble completing tasks. Timers can be helpful so the student is aware of how much time they have to complete an assignment.

Students with 504 Plans

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Gifted & Talented Strategies

Extensions/Enrichments: Teachers will provide gifted and talented students with extension/enrichment projects. Students will be challenged to further their understanding, to apply

acquired knowledge, and/or to produce something in reference to acquired knowledge.

Modify/Change Activities: Teachers will monitor and modify activities to accommodate those students who need to be challenged further. Additional reading, problem-solving, writing, or project work is necessary for those students who are ready to move on at a rate more accelerated than their peers. In this way, G & T students are provided the same opportunity for support as special needs students.

Students at Risk of School Failure

Directions or Instructions: Make sure directions and/or instructions are given in limited numbers. Give directions/instructions verbally and in simple written format. Ask students to repeat the instructions or directions to ensure understanding occurs. Check back with the student to ensure he/she hasn't forgotten.

Peer Support: Peers can help build confidence in other students by assisting in peer learning. Many teachers use the 'ask 3 before me' approach. This is fine, however, a student at risk may have to have a specific student or two to ask. Set this up for the student so he/she knows who to ask for clarification before going to you.

Alternate or Modified Assignments: Always ask yourself, "How can I modify this assignment to ensure the students at risk are able to complete it?" Sometimes you'll simplify the task, reduce the length of the assignment or allow for a different mode of delivery. For instance, many students may hand something in, the at-risk student may jot notes and give you the information verbally. Or, it just may be that you will need to assign an alternate assignment.

Increase One to One Time: When other students are working, always touch base with your students at risk and find out if they're on track or needing some additional support. A few minutes here and there will go a long way to intervene as the need presents itself.

Contracts: It helps to have a working contract between you and your students at risk. This helps prioritize the tasks that need to be done and ensure completion happens. Each day write down what needs to be completed, as the tasks are done, provide a checkmark or happy face. The goal of using contracts is to eventually have the student come to you for completion sign-offs.

Hands On: As much as possible, think in concrete terms and provide hands-on tasks. This means a child doing math may require a calculator or counters. The child may need to tape record comprehension activities instead of writing them. A child may have to listen to a story being read instead of reading it him/herself.

Tests/Assessments: Tests can be done orally if need be. Break tests down in smaller increments by having a portion of the test in the morning, another portion after lunch and the final part the next day.

Seating: Seat students near a helping peer or with quick access to the teacher. Those with hearing or sight issues need to be close to the instruction which often means near the front.

