



<p>1. What is our purpose?</p> <p>1a) To inquire into the following:</p> <ul style="list-style-type: none"> ● transdisciplinary theme <p>An inquiry into rights and responsibilities in the struggle to share finite resources with other people and with other living things; communities and of the relationships within and between them; access to equal opportunities; peace and conflict resolution</p> <p>How We Share the Planet (Agriculture): An inquiry into the roles and responsibilities of citizens of the world as we share the planet. Focusing on factors that affect land use, agriculture's role in our lives, and the relationship between the community's needs and its impact upon the land.</p> <ul style="list-style-type: none"> ● Central Idea <p>Understanding how climate, weather, and sustainable farming practices guides decisions related to responsible stewardship.</p>	<p>Class/grade: 3 Age group: 8-9</p> <p>School: Willard School code:7202</p> <p>Title: Sharing the Planet</p> <p>Teacher(s): Nhem, Novelo, DeGroof, Beaumont</p> <p>Date: 2/20/18 - 4/6/18</p> <p>Proposed duration: 6 weeks number of hours over number of weeks</p>
<p>1b) Summative assessment task(s):</p> <p>What are the possible ways of assessing students' understanding of the central idea? What evidence, including student-initiated actions, will we look for?</p> <p>Research project:</p> <p>The students will choose a geographic area anywhere in the world to research and plan a farm. This will include factors such as climate, needs of the people, and impact upon the environment.</p> <p>The teacher will assess the student's ability to demonstrate responsible choices in regard to location, sustainability, use of natural or chemical pesticides, appropriate choice of crop planting related to climate or geography, and crop rotation methods.</p>	<p>2. What do we want to learn?</p> <p>What are the key concepts (form, function, causation, change, connection, perspective, responsibility, reflection) to be emphasized within this inquiry?</p> <p>Key concepts: change, connection, and responsibility Related concepts: conservation, sustainability</p> <p>What lines of inquiry will define the scope of the inquiry into the central idea?</p> <ul style="list-style-type: none"> ● How climate and weather impact our stewardship of the land ● Life cycles and traits of plants and animals ● Sustainable farming practices <p>What teacher questions/provocations will drive these inquiries?</p> <ol style="list-style-type: none"> 1. What can you grow and raise in a certain environment? 2. How do people use natural resources? 3. How are people using agriculture in a sustainable manner? 4. What responsibilities exist with regard to land use? 5. How do people select the traits of plants and animals for their farms? <p>Provocations</p>

3. How might we know what we have learned?

This column should be used in conjunction with "How best might we learn?"

What are the possible ways of assessing students' prior knowledge and skills? What evidence will we look for?

- Teachers will chart what students know about farming, what they want to learn, and what they will learn by using a KWL chart during discussions at the beginning of the planner.
- Teachers will have children post which vocabulary terms they recognize in any reading material / classroom experience and define terms related to the theme.
- Teachers will use farm pictures to determine students' knowledge of farming.
- Teachers will note students' comments during their discussions related to their knowledge of farming.

What are the possible ways of assessing student learning in the context of the lines of inquiry? What evidence will we look for?

- Using the students' self-assessment, teachers will determine if students have understood the central idea.
- During discussion, research related to the ideal farming project, and in students' plant journals, the teacher will assess students' ability to use vocabulary related to farming.
- Teachers will review students' action plans, which will demonstrate their ability to make responsible decisions related to their environment. These action plans will be based upon what they have learned about pesticides, industrial pollution, and encroaching urban development.
- Using the classroom generated list of "ten ways to go green," and a student accountability checklist, teachers will be able to determine if students have applied what they have learned.
- Through their farming projects and debates and discussions related to the pros and cons of farming methods, the teacher will assess students' knowledge of the connection between a farming method and its environmental effects.
- Throughout their farm projects, the teacher will assess students' ability to identify elements that might affect a farm's sustainability, profitability, and environmental impact.
- By the completion of the unit, students will be able to apply what they have learned about protecting their environment. For instance, they may make a list of ten things they can do to go "green" and choose one to practice at home, use old tea bags and coffee grounds to use as fertilizer, start a recycling program at school or at home, or create a garden at home.
- Students will make a terrarium to grow bean plants in order to observe the growing process.

4. How best might we learn?

What are the learning experiences suggested by the teacher and/or students to encourage the students to engage with the inquiries and address the driving questions?

1. Teachers will invite guest speakers from preservation organizations, city planning organizations, etc. to visit the classroom and share their knowledge on land use.
2. The teacher will post vocabulary and provide background related to farming such as how things grow and factors that affect farming.
3. Children will take a walking tour of their school's neighborhood or to a community garden in order to learn about plants.
4. Teacher will provide multiple resources to explore: farm life, environmental change, plant life cycle, and plant classification.
5. Students will use multiple resources to research about farming practices, growing crops, and animal husbandry.
6. Students will study the effects of urbanization on farms.
7. Students will research the development of a farm in another part of the world.
8. Students will grow various types of plants to learn about plant life cycles and factors that affect plant growth.
9. Students will keep a plant journal documenting the growth of their planted seed.
10. Students will learn about factors that affect farming such as natural disasters, weather, climate, pests, bad farming practices, industrial pollution, and encroaching urbanization.
11. Students will debate and discuss the pros and cons of: organic farming methods, hormone-free animals, crop rotation, natural pest removal methods, genetically modified foods, fertilizers, hybridization, pesticides, and farming technology.
12. Students will research a geographic area anywhere in the world and create an ideal farm located in that area with low environmental impact. They will present their plan (in drawing or outline form) to the class.
13. Students will collect milk cartons to grow their own bean seed. Each week students will measure and record the growth of their plants.
14. OTQ various pictures of farming and fruit/vegetables growing from around the world.
15. Students sort various pictures of fruits and vegetables placing them in the various zones.

What opportunities will occur for transdisciplinary skills development and for the development of the attributes of the learner profile?

Thinking Skills: Knowledge, application, analysis, synthesis, and comprehension will be demonstrated as students learn about farming methods and create their ideal farms in cooperative groups. They will demonstrate comprehension skills by reading and analyzing nonfiction texts about responsible stewardship.

Self-management: Informed choices, organization, and time management skills will develop as students research, create, and present their ideal farm.

Research Skills: Collecting, organizing, interpreting, and presenting data will be essential research skills used throughout their farm project.

Students will demonstrate the following attitudes and profiles: principled, caring, reflective, and appreciation as students work in groups to create and present their ideal farm.

5. What resources need to be gathered?

What people, places, audio-visual materials, related literature, music, art, computer software, etc, will be available?

Internet: (www.go.grolier.com, www.yahooligans.com, www.pbskids.org), <http://www.foodbycountry.com/> encyclopedias, library books ("How a Plant Grows" by Gail Gibbons, "A River Ran Wild" by Lynne Cherry, "The Lorax" by Dr. Seuss, "Farewell to Shady Glade" by Bill Pete, "City Green" by DyAnne DiSalvo-Ryan, Open Court book (Country Life section), "Come Back, Salmon," "Plants We Eat" "Chili Fever"), Pasadena – Then and Now.

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How will the classroom environment, local environment, and/or the community be used to facilitate the inquiry?

Children will participate in creating a community garden with the LA Arboretum.

Websites, resources: USDA, almanac.com, time for kids, worldatlas.com, farmer's almanac, national geographic for kids. Kidzsearch.com, <https://www.youtube.com/watch?v=7rL979Apulc---kidney> bean time lapse video