



FOOD

SECONDARY LESSON PACKAGE

AN INITIATIVE OF



MADE POSSIBLE BY



PotashCorp
Helping Nature Provide

■ RATIONALE

Free from poverty and exploitation, free from disease, thirst, and hunger. These five freedoms are the driving force of the WE Villages holistic and sustainable development model, which unlocks the basis for change in the international communities we partner with. One of the most pressing issues directly affecting poverty alleviation today is the growing challenge of food security, the availability of and access to an adequate amount of healthy, nutritious food that meets populations' dietary needs and food preferences. That's why, thanks to PotashCorp, WE Villages has added a Food Pillar to its development model.

Free The Children's WE Villages is an international development model that provides access to the Pillars of Impact—Education, Water, Health, Food, and Opportunity—to empower a community with the means to forever lift itself from poverty. Why these pillars? Because together they can achieve a greater impact. All the pillars of the WE Villages model are owned and maintained by the community, and designed to be self-sustaining after the initial project implementation.

The Food Pillar focuses on innovative farming techniques and water management projects to help ensure developing communities have access to self-sustaining food sources, directly improving health, access to education and life outcomes. This lesson package was created to provide educators with comprehensive lessons on the purpose and inner workings of the Food Pillar. With this knowledge, students will learn the value of their participation in the WE Villages programming and understand the contribution they have made to address the problem of global hunger. The lessons are grounded in the WE Learning Framework, ensuring students develop the core skill sets that help them achieve the learning goals and outcomes that contribute to becoming a global citizen.

This lesson package is made possible thanks to support from PotashCorp.

PotashCorp and WE Villages' partnership

PotashCorp is a Canadian crop nutrient company that plays an important role in global food production, and is a longstanding champion for global agriculture and food security. In response to this growing worldwide need, PotashCorp has partnered with WE Villages to found, develop and support the Food Pillar. Through this pillar, communities can grow the food they need and plant strong roots for the future.

Together, we're taking on the challenge by shining a spotlight on the need for better agriculture around the world and engaging young people to be part of the solution.

Core Skill Sets

Look for these icons at the top of each lesson. The icons identify the most relevant core skills being developed. Learn more about the WE Learning Framework at www.weday.com/weschools.



CRITICAL THINKING



RESEARCH AND WRITING



INFORMATION LITERACY



ARGUMENT FORMATION



LEADERSHIP SKILLS



ORGANIZATION



ACTION PLANNING



REFLECTION

■ DETAILS

Level: Secondary

Themes: Agriculture, food security, plant growth and nutrition cycle, weather, nutrition, growing gardens, character education, environment, global issues, health, poverty, team building, clean water.

Estimated time: 280 minutes

Learning goals:

Students will:

- Learn what food security entails
- Study the three key elements of food security
- Create dioramas to illustrate their understanding of the unique growing environments found in WE Villages communities
- Discover the complexities of the plant growth and nutrition cycle including the importance of water, soil nutrients and energy to healthy plant development
- Find out how extreme weather affects the plant growth and nutrition cycle around the world
- Explore different types of gardens in WE Villages communities and what is grown in each
- Work in groups to prepare WE Villages community dishes for a class potluck.

Course connections: The Arts, English, Social Sciences and the Humanities, Science, Canadian and World Studies, Interdisciplinary Studies, Health and Physical Education

Resources required:

- Front board
- Paper and writing utensils, colouring utensils
- Computers with Internet capabilities
- Poster-making supplies (optional: students may do this part of the activity at home)
- Nutrition guides
- Ingredients for WE Villages community dishes

Resources included:

- Plant Growth Cycle
- Recipes from We Villages Partner Communities

Assessment:

- Appendix 1: Assessment Rubric

■ INTRODUCTORY LESSON: THE THREE KEY ELEMENTS OF FOOD SECURITY



Purpose: Students will learn about food security and its key elements through the use of a word wall.

Instructional method(s): Word wall, class discussion

Differentiated instruction:

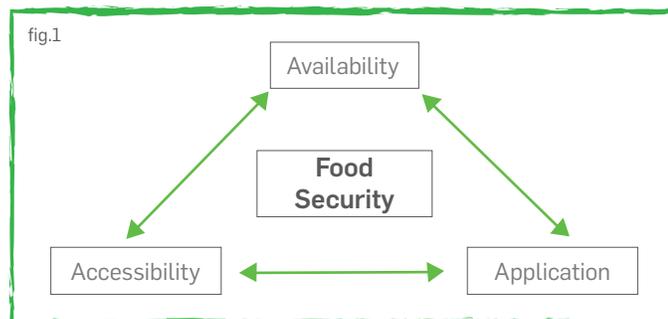
- Have students define the three key elements of food security in their notes individually or by using a think-pair-share format.
- Answer the follow-up questions as a class with a brainstorming session.

Course connections: English, Social Sciences and the Humanities, Science, Canadian and World Studies, Health and Physical Education, the Arts, Interdisciplinary Studies

Estimated time: 25 minutes

Steps:

1. Introduce the definition of food security and the three key elements of food security by creating (or adding to) a word wall. Write "Food Security," "Availability," "Accessibility" and "Application" on four pieces of paper, making small signs. Use the shape of a triangle to illustrate the interconnectedness of each element as they relate to food security. Use the three elements as points on a triangle placing "Food Security" in the middle when working with students to define the terms and when displaying the words on the word wall (see fig.1).



2. First, ask students what "food security" might mean. Working with their suggestions, establish a clear definition.

- Food Security—a condition in which all people, at all times, have physical and economic access to sufficient, safe and nutritious food to meet their dietary needs and food preferences for an active and healthy life.

Note: Definitions are based on food security definitions from the World Health Organization and Ryerson University's Centre for Studies in Food Security.

3. Then ask what each of the words "Availability," "Accessibility" and "Application" might mean.
 - **Availability**—Having sufficient quantities of food available to all people at all times.
 - **Accessibility**—Having physical and economic access to nutritious and culturally acceptable foods.
 - **Application**—Applying knowledge of basic nutrition, safe food use and care with clean water, proper sanitation and health care to achieve well-being.
4. Ask students how the terms work within the definition of food security. Write the answers on the board, ultimately forming clear definitions. Help guide students to understand the provided definitions. Then ask for volunteers or select students who might benefit from going over the definitions again. Have them write the definitions on the four small signs. Post the words on the wall for students to reference while they work.
5. To help students make real-life connection with the terms, create a farm-to-table timeline on the front board. Ask students to think of a typical dinner (e.g. fish, corn, broccoli, rice and milk). Have students suggest the process their foods need to take to get from their origin to the dinner plate. Ask students how this dinner is available, accessible and applicable. Do they live with food security or insecurity? Is someone who uses a food bank food secure or insecure? (Someone who uses a food bank is considered food secure. Through government and private support, food is available, accessible and acceptable.)
6. Now that students understand food security, have students research the food security, agricultural realities and geological specifics of the land in WE Villages partner communities. Tell students they will be creating a diorama that illustrates geologic advantages and disadvantages for agriculture.

7. Working in groups of two or three, have students choose a country and region that WE Villages works in:
 - a. **Ecuador**
 - Chimborazo region
 - b. **Haiti**
 - Central Plateau region
 - c. **India**
 - Rajsamand district, Rajasthan state
 - d. **Kenya**
 - Maasai Mara, Narok South Constituency
 - e. **Nicaragua**
 - Carazo department
 - f. **Rural China**
 - Northern provinces of Hebei, Gansu and Liaoning
 - Central southern provinces of Jiangxi and Sichuan
 - g. **Sierra Leone**
 - Kono district
 - h. **Tanzania**
 - Maasai Mara, Longido and Arusha districts
8. Next, students should look up the geology, general soil nutrient composition types of flora and fauna, and types of agriculture in this area. Students will need to discover local agricultural and food security challenges and what it takes to cultivate successful crops in the region. How available is food in the country and region? What food is available? Is food accessible to all year-round?
9. Outline expectations for students' dioramas before they begin their research and planning. Ask students for suggestions. Models may include, but are not limited to, the following:
 - An aerial view or a side view
 - Visual representation of common flora, fauna, water sources, etc.
 - A three dimensional representation of the landscape
 - Creative demonstration of knowledge through the use of various materials
10. Allow 20 to 30 minutes of class time for research and assign completion of the diorama for homework. Assign a due date.
11. On the project due date, have students present their diorama to the rest of the class. The diorama should illustrate the geologic advantages and disadvantages of the region. Ensure students demonstrate their understanding of the specific area, identify viable crops for the area and show what it takes to cultivate successful crops in the region.

Educator's Note: WE Villages is designed to empower communities to break the cycle of poverty and support themselves over the long term by identifying and creating initiatives that address the needs of the community in a holistic way. Sustainability is a at from the outset of project planning. All development plans are informed by a needs and assets assessment performed at the beginning of each new community partnership. Each Pillar of Impact is implemented when a community is ready for and needs it through a process that usually begins with our Education Pillar. The Food Pillar may not yet be in place in each of the WE Villages partner communities. For the purposes of this activity, have students research, create the diorama and report as though each community will have full implementation of all WE Villages pillars.

■ CORE LESSON:

GROWING THE FOOD WE NEED



Purpose: Students will discover how the plant growth cycle is affected by extreme weather conditions, moisture levels and soil nutrients. Students will share with their peers the severe impacts these conditions have on agriculture.

Instructional method(s): Class discussion, group work, research, gallery tour

Differentiated instruction:

- Rather than having students create a poster, have students develop dioramas that simulate the effects of an extreme weather condition on crops.
- Have students work independently rather than in partners or small groups.

Course connections: English, Science, Health and Physical Education, the Arts, Canadian and World Studies, Interdisciplinary Studies

Estimated time: 110 minutes

Steps:

1. For homework the night before this lesson, ask students to bring a container of water to school. For diversity, encourage students to be creative when selecting the container, the amount of water and the source of the water (e.g. rain water, from a drinking fountain, from a tap, bottled water, river water, etc).
2. To begin the class, have each student take out their container of water. Allow each student to stand up, present their container and tell the class where they got the water from.
3. When everyone is finished, ask students a few follow-up questions:
 - Whose water in the class do you think is the freshest?
 - Whose water is the newest?
 - Whose water is the oldest?
4. Have students vote for their favourite answers and come to a class consensus.
5. Tell students that while each of their water collections comes from different sources, it is all actually the same age. Every ounce of water, no matter where it comes from on the entire globe, has been here since the beginning of the Earth. Ask students if they think it is the same with soil:
 - What are some different types of soil?
 - Can new soil be created?
 - What makes “new” soil?
 - What in the soil helps plants grow? (E.g., soil nutrients like nitrogen, phosphorus and potassium.)
 - Where might soil nutrients come from?
6. Soil that has the proper nutrients helps grow healthy plants which, when consumed, are a part of a nutritious diet. Tell students that the rotation and revitalization of water and soil nutrients combined with the energy from the sun are essential for growing healthy plants.
7. Go through a basic nutrition and plant growth cycle with the class (use Blackline Master 1 as reference), ensuring they understand the process before moving onto the next step, which will build on this knowledge.
8. Ask students to predict the growth of a plant if the three elements (water, soil nutrients and sunlight) are typical, using the following questions:
 - What would happen to a bean plant that is kept in the dark?
 - What would it look like?
 - How would that affect the amount of beans it would produce?
 - How do soil nutrients affect a bean plant's growth?
 - Why is it important to have nutrient-rich soil for plants?
 - If a corn plant is not watered, what happens?
 - What happens if it gets too much water?
 - What happens if it gets too hot? Too cold?
9. Have students divide into groups of two to three. If possible, keep the same groups from the introductory lesson. Students will then continue to study their selected country and region to see how extreme weather conditions affect plant growth in these areas. To ensure there are no repeats, limit the number of groups to 14.
10. Write the following 14 extreme weather conditions on scraps of paper: hurricane, flood, tsunami, drought, typhoon, cyclone, tropical storm, earthquake, fire, unseasonable frost, ice storm, torrential rains, mudslides, storm surge. Place the scraps of paper in a container. Circulate through the room, allowing each group to select one from the container; this will be their topic for the exercise.

11. Instruct each group to create a poster that describes the extreme weather condition assigned to them. The poster must illustrate the effects on a plant's life in the growth and nutrition cycle in and after that weather condition, and reveal the effects on agriculture grown in the region as a whole before, during and after the weather condition.
12. On the front board, as a class, create a list of elements that each poster should incorporate.
This list may include, but is not limited to:
 - a. A catchy title
 - b. An explanation of the assigned extreme weather condition
 - c. A visual representation of the plant growth cycle with the effects of the extreme weather condition
 - d. A soil nutrients breakdown of the affected soil (e.g. levels of nitrogen, phosphorus and potassium)
 - e. A clear description of the consequences the extreme weather has on agriculture in the affected region and how it thus affects food security
 - f. Regions of the world that are most affected by the extreme weather condition
 - g. A historic example
 - h. A proposed solution for better preparedness to save crops from this severe weather condition (e.g. irrigation in regions affected by drought, proper soil nutrients for more drought resistant crops, mulching to protect against frost, etc.)
 - i. Labelled pictures or photos
 - j. List of sources
13. Give students 20 to 30 minutes in class to conduct research using trusted Internet websites and sources, encyclopedias, classroom textbooks, newspapers, etc.
14. Suggest students create a rough draft to organize ideas. Provide students 20 to 30 minutes to create the posters.
15. Assign the remainder of the work for homework.
16. On the due date, hold a gallery tour for students to share their work with their classmates. Move desks to the outer edges of the classroom. Have students display their posters around the room. Encourage students to take pride in their work and share their new knowledge with their peers. Instruct groups to take turns touring the classroom so each poster has a presenter ready to explain their weather condition, plant growth cycle, and how the weather conditions affects agriculture, to visitors. Open the tour to other classes and guests in the school.
17. After the gallery tour, have students hand in their posters for grading. To ensure students have a firm understanding of the connection between weather conditions, soil nutrients and food security, finish with a brief discussion question: What might happen to people in developing countries who are affected by weather patterns and extreme conditions when alternative food sources are not easily accessible? (E.g., no nearby grocery stores, markets, etc.) Display posters in the hallways of the school to further spread the word.

Educator's Note: What is a gallery tour? This gallery tour consists of student-created presentations with written and visual content. Student groups take turns circulating in a room set up like a gallery. Students stationed with their posters describe their work and answer any questions their peers may have.

Soil Nutrients:

- **Nitrogen (N):** Nitrogen comes from the Earth's atmosphere. It keeps cells vibrant and dividing for strong growth. Nitrogen helps plants absorb soil nutrients to maintain their healthy green appearance. It also makes the food we eat healthier by increasing the plant's protein content.
- **Phosphorus (P):** Phosphorous comes from the fossilized remains of ancient marine life that is found in rock deposits. It helps plants grow by capturing light and harnessing water during photosynthesis. Phosphorous helps fight external stress like heat and drought to prevent disease. Additionally, it helps plants produce seeds for more plants to grow from.
- **Potassium (K):** Potassium comes from ancient dried up seas and oceans. It signals the pores on leaves to open and close, creating water balance. Potassium also regulates chemical intake for strong growth, improves root strength and disease resistance, and enhances the taste, colour, and texture of food.

Extension Activity: Use the questions from step 8 as a guide for a plant growth experiment. Help students understand the effects of light, water and soil on the health and vitality of growing plants.

■ CORE LESSON 2: FROM FIELD TO YOUR PLATE



Purpose: Students will understand what makes their food healthy and nutritious by following the growth and journey of their food from the field to their plate. They will also compare and contrast food and nutrition programs in their community and around the world.

Instructional method(s): Individual research, visual timeline

Differentiated instruction:

- Have students create a timeline independently rather than as a class.

Course connections: Social Sciences and the Humanities, Health and Physical Education, Business Studies, Canadian and World Studies, Science

Special materials: Canada's Food Guide, order enough copies online from the Ministry of Health or display an electronic version on an overhead/smartboard.

Estimated time:

- **Part 1:** 30 minutes
- **Part 2:** 90 minutes

Steps: Part 1

1. We all know what we should do to be healthy: eat well, stay active, get plenty of sleep. But what does that really mean? Is eating well sticking to low-fat, no-carb, zero-calorie food? Does staying active mean going to the gym every day to run on a treadmill? And how much sleep is enough? No one has all the answers, but the Canadian Ministry of Health has resources to help us figure out what is best. One thing is for sure, it will be different for each person. For most of us eating whole foods, being active through simple daily movements and getting a good night's sleep is just right. In order to know what foods are healthy, refer to Canada's Food Guide.
2. Distribute a copy of Canada's Food Guide to each student, or project the electronic version on the board. Go through the guide with students, highlighting the four food groups, the number of servings appropriate for students' ages and what qualifies as a serving. Ask students to individually read the parts you did not go over as a class.
3. For homework, ask students to keep a food journal over the next three days (or a week if it fits into your classroom schedule). Students should write down what they eat, categorizing it into the four food groups, noting the number of servings. Tell students they won't have to share this with anyone else. While you will check for completeness, this is for their personal reflection so they should be as accurate as possible.
4. At the end of the assigned time, ask students to review their current diets using their journals. What have they learned about their diets? Are they eating as Canada's Food Guide suggests they should? What can they do to help have a better, more well-rounded diet? What types of foods should they eat more of or less of? Which food nutrients are missing from their diet? Which nutrients are they getting enough of? If they could grow a garden (at home, on a farm, in a community garden plot, on a balcony, etc.), what would they grow to supplement their diet to make it more healthy?
5. Instruct students to make a list with an accompanying diagram of what the garden or garden-like plot looks like. What soil nutrients are needed to grow a garden? What does each soil nutrient do for your garden? While fruits and vegetables are natural home garden considerations, allow students to think outside of the produce box. Would they include a chicken coop for fresh eggs, a dairy cow for milk products, soya beans for tofu and soy milk, etc.?
6. Tell students that following a healthy diet is not always easy to do, especially for those affected by one of the three key elements of food security: availability, accessibility and application. (See the introductory lesson for definitions, and review these definitions with students if necessary.) It is essential for children to get the nutrition they need to grow up healthy. For this reason, around the world, during different times in history, programs were developed to help those in need get proper nutrition. Some examples include:
 - Food banks that provide supplemental food for individuals and families. A national program, Food Banks Canada, works to meet short-term needs while looking for long-term solutions. They are largely supported by donations from the local community.
 - The National School Lunch Act in the United States. Passed by Congress in 1946, the program was led by President Truman to help school-age children focus on their studies rather than their hunger. It has since expanded to include breakfast, snack and summer programs.

- Free school dinners in the United Kingdom for students. Rationing continued in post-war England making it difficult for low-income families. The program suffered during government cutbacks but was recently improved when famous chef Jamie Oliver turned the nation's attention to the failing health of young people due to the lack of nutritious food.
- Students in many of WE Villages partner communities receive lunches through school nutrition programs. These programs use food grown in school gardens and farms tended by community members and by the school's environmental club. This helps make the programs sustainable. Superfoods (foods that are especially rich in vitamins and nutrients) such as kale, butternut squash, spinach and tomatoes are examples of foods grown in these gardens and farms.

Part 2

8. Canada's Food Guide is just a snapshot of food during its journey to help make us healthy. Tell students they will be learning about the food they eat, from a farmer's field to their plate, to learn more about this journey.
9. Students should select a food group: vegetable and fruit, grain products, milk and dairy alternatives, or meat and protein alternatives. Make sure there is a good balance of food groups represented. Instruct students to choose a food from their category that they like to eat or would like to know more about. Have students share their knowledge of the journey food takes from the field to their plate with a visual timeline.

Educator's Note: A visual timeline is a chronological catalogue that uses words and pictures.

10. As a class, create a timeline outline by brainstorming a list of stages food takes during its journey (see example).

Write them on the board. The timeline should be easily understood by people just passing the display while also having content for those who stop to learn more. The overarching theme of the timeline should be "what makes a healthy person." Visuals may include but are not limited to the following key moments:

- **Plate:** at mealtime, the food we eat.
- **Store shelves:** while waiting to be purchased. In the store or on its way between the store and the farm, does food lose any of its nutritional value? What happens to it? How can you ensure it is at its peak healthiness?
- **Farmer's field:** growing up healthy.
- **Soil and Seed:** healthy beginnings.

11. Timelines should answer the following questions and follow a similar flow:
 - **What makes a person healthy?**
Nutritious food [insert student selected food item]
 - **What makes this food nutritious?**
Vitamins, protein, antioxidants, etc.
 - **Why do we need these to be healthy?**
 - **How did it become nutritious?**
It gets nutrients while it grows.
 - **What do you need to grow healthy food?**
Nutrient-rich soil.
 - **What makes healthy soil?**
Primary nutrients such as Nitrogen, Phosphorous and Potassium (NPK), secondary nutrients (Ca, Mg and S) and micronutrients.
 - **How does each of these elements make the soil healthy and perfect for growing food? Why does the soil need NPK? Why does your body need NPK?**
12. Students will need to have a combination of visuals and writing in their timeline that accurately illustrates the field-to-plate food journey.
13. Allow students time in class to work on the research and timeline development. Assign what is not finished in class for homework. Set a due date.
14. Display the finished timelines in a busy hallway or in your classroom to share food's nutritional journey with the rest of the student body.

■ CONCLUDING LESSON: NUTRITION WORKS



Purpose: Students will discover the nutritional element of the Food Pillar by examining diets of families in WE Villages partner communities.

Instructional method(s): Class discussion, guided research, demonstration, experiential learning

Differentiated instruction:

- Add in an element of math. After providing students with the recipe cards, have students calculate the quantity of supplies they will need to prepare the dish for themselves and their classmates. Encourage students to calculate the estimated costs of the dish as well.

Course connections: English, Canadian and World Studies, Social Science and the Humanities, Science, Health and Physical Education, The Arts, Interdisciplinary Studies

Estimated time: 60 minutes immediate classroom time, plus more time for gardening project or potted plant experiment throughout the year.

Steps:

1. Nutrition is a large part of the Food Pillar, as WE Villages works toward ensuring the communities it partners with are healthy and sustainable. Inform students how the Food Pillar promotes nutrition through multiple programs:
 - a. Education concerning proper nutrition, food preparation and agriculture techniques through classes, clubs and demonstration is a vital part of implementing the Food pillar.
 - b. School gardens help support lunch programs with the help of environmental clubs. If there is a water source nearby a school farm may be established.
 - c. With the support of WE Villages, women's groups create kitchen gardens, which help supply household nutrition. If there is abundance it may also be used to generate income for the family.
 - d. Medicinal gardens, used as demonstration gardens for entire communities, show the nutritional properties of different plants. At Baraka Health Clinic in Kenya, the Moringa tree is used for education and is also used by the staff at the clinic.
 - e. Tree nurseries provide seeds and seedlings for plants that are native to the region in addition to offering new crops that are viable to the conditions in the area, providing affordable and nutritious produce.
- f. Kitchens and dining halls are used in some communities to ensure food preparation is sanitary.
2. Tell students they will discover the importance of nutritional diets and what different diets from around the world consist of through the study and preparation of a traditional meal from a WE Villages partner community.
3. Divide students into eight groups. Provide each group with a recipe card.
4. Have students find the nutritional information for the dish by consulting the food guide. Distribute photocopies or have students reference the guides online. Instruct students to find out if there is a food guide provided by the government of the country the recipe is from. Compare and contrast with nutritional guides.
5. Answer the following questions:
 - What is the dish called?
 - Where is it from?
 - What does it consist of?
 - What food groups does it cover?
 - How would this dish fit into the diet of someone living in the community? (E.g., main dish, supplementary, etc.)
6. Once students have finished the nutritional study of the recipe, take students to a classroom equipped with kitchen equipment.
7. Go over basic kitchen safety rules by having students suggest what is proper and improper behaviour in a kitchen. (E.g. properly wash hands before and after handling food, knives are for cutting food only, etc.).
8. Designate specific equipment, ingredients and areas for each group. Allow students to begin preparing their dish while keeping a close eye on behaviour and progress.
9. Encourage students to keep their work areas clean by cleaning up as they work.
10. Once students have completed their dishes, have them congregate at a large table. Students who are finished early should cover their dish so it stays warm. Have them set the table so it is ready for the meal.

11. Have the class sit together to enjoy the fellowship that sharing a meal provides. Lead a discussion about the food the class is eating. Ask students how they like it, did they enjoy preparing the food, etc.

Connect with your WE Schools Coordinator or contact weschools@we.org for fundraising posters and more information on the Food pillar.

Let us know what you think. We are always working to make our educational resources better for teachers and students. Answer the short survey and help shape the educational content we offer.

Food Pillar

www.surveygizmo.com/s3/2446714/A-FS.

■ ADDITIONAL RESOURCES

In addition to the lesson plans, share these resources with your students:

- Free The Children's WE Villages Story: www.freethechildren.com/what-we-do/adopt-a-village/
- WE Villages Food pillar: www.freethechildren.com/what-we-do/adopt-a-village/agriculture-and-food-security/
- Canadian Fertilizer Institute's resource hub Nutrients for Life: www.nutrientsforlife.ca
- Food and Agriculture Organization of the United Nations: www.fao.org/index_en.htm
- World Health Organization, Food Security: www.who.int/trade/glossary/story028/en/
- Ryerson University Centre for Studies in Food Security: www.ryerson.ca/foodsecurity/
- Canada's Food Guide: www.hc-sc.gc.ca/fn-an/alt_formats/hpfb-dgpsa/pdf/food-guide-aliment/print_eatwell_bienmang-eng.pdf
- Canada's Food Guide, also available in French, Inuktitut, Ojibwe, Plains Cree and Woods Cree: www.hc-sc.gc.ca/fn-an/pubs/fnim-pnim/index-eng.php
- Health Canada: www.hc-sc.gc.ca/fn-an/food-guide-aliment/order-commander/index-eng.php#a1
- Canada's Food Guide viewer friendly version: www.hc-sc.gc.ca/fn-an/alt_formats/hpfb-dgpsa/pdf/food-guide-aliment/view_eatwell_vue_bienmang-eng.pdf
- Canada's Food Guide printer friendly version www.hc-sc.gc.ca/fn-an/alt_formats/hpfb-dgpsa/pdf/food-guide-aliment/print_eatwell_bienmang-eng.pdf
- Order free copies of the Canada's Food Guide for your class www.hc-publication-sc.hc-sc.gc.ca/paccb-dgapcc/cmcd-dcmc/webpubs.nsf/Web1/4651?OpenDocument&lang=eng&

■ Appendix 1

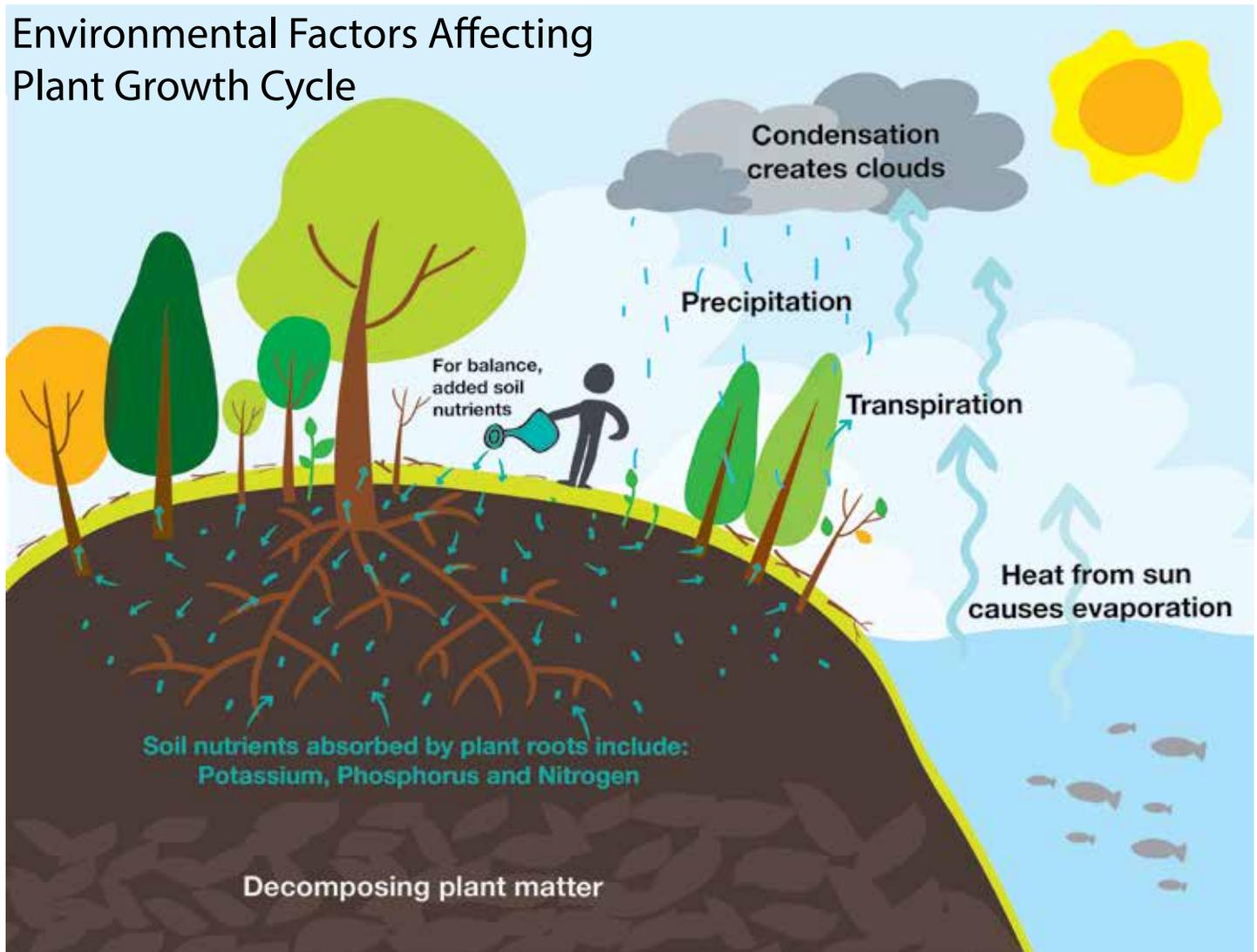
ASSESSMENT RUBRIC

This assessment rubric is based on Bloom's taxonomy, a multi-tiered model to classify cognitive levels of complexity to evaluate students' comprehension of issues and participation with the lessons.

	Level 1: 50-59%	Level 2: 60-69%	Level 3: 70-79%	Level 4: 80-100%
KNOWLEDGE AND COMPREHENSION	Demonstrates limited knowledge and understanding of the relationships among facts, ideas and concepts	Demonstrates some knowledge and understanding of the relationships among facts, ideas and concepts	Demonstrates considerable knowledge and understanding of the relationships among facts, ideas and concepts	Demonstrates thorough knowledge and understanding of the relationships among facts, ideas and concepts
APPLICATION AND ANALYSIS	Uses critical and creative thinking processes and develops examples with limited effectiveness	Uses critical and creative thinking processes and develops examples with some effectiveness	Uses critical and creative thinking processes and develops examples with considerable effectiveness	Uses critical and creative thinking processes and develops examples with a high degree of effectiveness
SYNTHESIS AND EVALUATION	Demonstrates knowledge and makes connections with limited effectiveness	Demonstrates knowledge and makes connections with some effectiveness	Demonstrates knowledge and makes connections with considerable effectiveness	Demonstrates knowledge and makes connections with a high degree of effectiveness
ORGANIZATION AND COMMUNICATION	Expresses and organizes information while using appropriate language for different audiences and purposes with limited effectiveness	Expresses and organizes information while using appropriate language for different audiences and purposes with some effectiveness	Expresses and organizes information while using appropriate language for different audiences and purposes with considerable effectiveness	Expresses and organizes information while using appropriate language for different audiences and purposes with a high degree of effectiveness

BLACKLINE MASTER 1

Environmental Factors Affecting Plant Growth Cycle



BLACKLINE MASTER 2

RECIPES FROM WE VILLAGES PARTNER COMMUNITIES

KENYA

UGALI

Ugali is served with meat, fish or vegetable stews. To eat ugali, pull off a small ball of the mush of white maize/cornmeal with your fingers, form an indentation with your thumb and use it to scoop up tasty stews and other dishes. This recipe is for four to six people.

INGREDIENTS:

6 cups water cooking pot	4 cups of finely ground white maize meal/cornmeal
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DIRECTIONS:

1. Boil the water in a heavy cooking pot. Stir in the cornmeal slowly.
2. Reduce heat to medium-low and continue stirring regularly, smashing any lumps that may form with a cooking stick.
3. As ugali continues to cook, it gets very thick. You can continue adding flour until it is thicker than mashed potatoes.
4. Leave it cooking for about 15 minutes, but make sure you keep turning it so that it does not get burned.
5. Using the cooking stick, mash it into a dome shape. Tip out your ugali into a serving bowl.

KENYA

SUKUMA WIKI

To accompany the Ugali, cook an east Kenyan stew called sukuma wiki.

INGREDIENTS:

1 bunch kale	2 small onions, chopped
2 cloves garlic	2 cups tomato (about 4 plum tomatoes)
1 - 2 cups water	1 tsp paprika
2 tsp olive oil	salt and pepper

DIRECTIONS:

1. Heat up a pot with olive oil and toss in the onions and spices. Add the garlic once the onions are translucent. Add tomatoes, water and kale.
2. Cook in a covered pot for 30 minutes, then eat!

INDIA

CHAPATIS

Chapati is an Indian flatbread that is great to serve with various Indian dishes, such as curries or stews. Many poorer communities will only have chapatis with a bit of weak curry or pickles. This recipe does not take very long, and makes about 10 chapatis.

INGREDIENTS:

2 cups wholemeal flour	$\frac{3}{4}$ cup water
1 tsp salt	2 tbsps olive oil

DIRECTIONS:

1. In a large bowl, stir together the flour and salt. Use a wooden spoon to stir in the olive oil and enough water to make a soft dough that is elastic but not sticky. Knead the dough on a lightly floured surface until it is smooth. Divide into 10 parts, or less if you want bigger breads. Roll each piece into a ball. Let rest for a few minutes.
2. Heat a skillet on medium until hot; grease lightly. On a lightly floured surface, use a floured rolling pin to roll out the balls of dough until very thin like a tortilla. When the pan starts smoking, put a chapati on it. Cook about 30 seconds until the underside has brown spots then flip and cook on the other side. Continue with remaining dough.

CHINA

SWEET POTATOES

In rural villages of China, many parents do not have substantial fresh vegetables or meat to provide healthy meals to children. Only a few times a year do communities have access to meat, dairy or fresh vegetables.

INGREDIENTS:

Sweet potato	Syrup or oil
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DIRECTIONS:

1. Cut sweet potato into chunks.
2. Put pan over inside oven (open fire) and fill with oil or syrup.
3. Wait until boiling then put chunks of sweet potato into pan.
4. Cook until fried and serve.

RECIPES FROM WE VILLAGES' PARTNER COMMUNITIES

CHINA

SUAN CAI

Suan cai, or pickled vegetables, are often eaten in colder communities of rural China. This dish can be served with steamed buns or potatoes and is most commonly in the form of pickled cabbage or pickled beans.

INGREDIENTS:

Napa cabbage	Vegetable oil
Dry red chili peppers	White vinegar
Chinese chilli oil	Sugar and salt

DIRECTIONS:

1. In a large colander, add shredded cabbage, sprinkle it with salt and toss it to distribute the salt. Place colander over a bowl and drain for 30 minutes.
2. In another bowl stir vinegar and sugar together until sugar dissolves.
3. In a skillet, heat vegetable oil, the remaining salt and chilli peppers. Add drained cabbage into hot oil.
4. Add vinegar and chili oil and cook for a few seconds. Transfer the cabbage into a large bowl.
5. Before serving, keep it in the refrigerator for two weeks.

HAITI

LABOUYI BANNANN

Bananas and plantains in any form are very popular in Haiti. This dish is hearty and filling and is often served in the evenings for supper; however, it is so good that it could be served at breakfast or lunch as well. Serves four.

INGREDIENTS:

1 green plantain	12 oz evaporated milk (or soy milk)
2 cups water	12 or 14 oz canned coconut milk (may use light coconut milk or 1 cup milk)
1 ripe banana	
3 cinnamon sticks	½ cup sugar (white or brown)
2 whole anise stars	½ tsp grated lime rind or ½-inch whole lime rind
Nutmeg	

DIRECTIONS:

1. Peel the plantain and cut into ½-inch slices. In the blender, purée plantain pieces, 2 cups water, and ripe banana. Or, grate the plantain, mash the banana and mix both with 2 cups water to get a purée.
2. In a saucepan, add plantain purée and bring to a boil on low-medium heat. Add evaporated milk, vanilla extract, cinnamon sticks, anise stars, nutmeg, sugar and lime rind. Cook for 15-20 minutes, stirring occasionally so that it does not stick to the bottom of the pot. The consistency should be like that of oatmeal.