



SEASONALITY: EVERYTHING IN ITS OWN TIME - LESSON & ADAPTATIONS FOR K-12

Lesson adapted from lesson by Chandra Garcia-Kitch and Justin Behlke	
INTEGRATED SUBJECT(S): English Language Arts, Math, Science	
MAIN IDEA/TOPIC:	
Food can help students better understand the relationship between the environment and seasonality.	
FOOD OBJECTIVES + CURRICULAR CONNECTION	
Students will practice social emotional learning skills and reading, math, or science skills by working in collaborative groups to create a unique recipe using seasonally available ingredients	
ACADEMIC STANDARD(S)/SKILLS <i>Potential Curricular Connections:</i>	PILOT LIGHT FOOD STANDARD(S)
<p>Common Core English Language Arts: Grades K-12 Informational Text: Key Ideas and Details (Standard 1) Grades K-12 Writing: Text Types and Purposes (Standard 2)</p> <p>Common Core Math: Grades K-5 Measurement and Data Grades 3-5 Number and Operations - Fractions</p>	<p>PLFS 2: Foods have sources and origins.</p> <p>PLFS 3: Food and the environment are interconnected.</p> <p>PLFS 5: Food impacts health.</p> <p>PLFS 6: We can make positive and informed food choices.</p>
RELEVANT VOCABULARY	
<p>season, seasonality. interdependent, sustainable, eco-(as a root), farm-to-table, root, tuber, bean(as a category), brassica, citrus, segment, equal,</p>	



CLASSROOM/CURRICULUM ACTIVITIES THAT CONNECT TO THE FOOD EXPERIENCE

How the food experience connect to the curriculum: Building questions, developing knowledge, extensions, connections

***grade band are only suggestions- activities can be modified to fit multiple grade levels**

Grades K-2:

- Practicing social emotional learning skills with group work
- Read *The Doorbell Rang* by Pat Hutchins. Discuss how the fractional pieces of something can be changed to fit the needs of a situation or group.
- Use the food rainbow to discuss how color matters - what you see on the plate, what you taste in your mouth and what you smell with your nose. Do certain foods have certain properties?
- Read *The Vegetables We Eat* by Gail Gibbons. Have students design a meal and describe what part of the meal contains vegetables/ fruits. Students could also create a vegetable color wheel.
- Read *Oliver's Vegetables* by Vivian French and make a list of the veggies students eat. Create a graph or data table from the list.

Grades 3-5:

- Practicing social emotional learning skills with group work
- Students work on fractions using CCSS 4th edition Everyday Math, chapter 8.
- Read the book: *Eating Fractions*, by Bruce McMillan. Students share different ways to share foods equally and foods that are already segmented (pizza slices, apples, oranges)
- Fraction Houses: Students create a picture of a house using directions that are written with fractions. There are 6 windows, $\frac{2}{6}$ of the windows have curtains. There are 15 flowers, $\frac{3}{15}$ of the flowers are red, $\frac{7}{15}$ of the flowers are blue and $\frac{5}{15}$ of the flowers are yellow.
- Use myplate.gov to discuss the current food recommendations. Have students decide what fraction of the plate should be fruits and vegetables ($\frac{1}{2}$ of the plate, but fruit is smaller portion of the half - discuss why that might be).
- Visit the school garden and discuss/ read about what grows in Illinois in the Spring. Ask: What do these plants have in common? How are they different than vegetables we eat in August (corn, tomatoes, cucumbers)?

Grades 6-8:

- Practicing social emotional learning skills with group work
- Fractions and adapting recipes for large groups (Math)
- Climatic impacts on food growth (Science)

Grades 9-12:

- Practicing social emotional learning skills with group work
- Increasing yield in a small space (Math, Science)
- Distance of how food gets to where it needs to be (seasonalfoodguide.org) (Math)



RELATED BACKGROUND KNOWLEDGE ON FOOD

Information about eating in season:

<https://lifehacker.com/why-eating-seasonally-and-locally-is-better-for-you-an-1563025065>

Finding what is in season:

<https://www.seasonalfoodguide.org/why-eat-seasonally>

Sample recipes:

<https://www.bonappetit.com/recipes/slideshow/spring-recipes>

ANCHOR TEXTS

Grades K-3

- *The Vegetables We Eat* by Gail Gibbons
- *The Doorbell Rang* by Pat Hutchins
- *Oliver's Vegetables* by Vivian French

Grades 3-12

- *The Story of Food: An Illustrated History of Everything We Eat* published by DK
- *Stinky and Stringy : Stem & Bulb Vegetables (Plants We Eat)* by Meredith Sayles Hughes (Grades 5-8)
- *Eating Fractions* by Bruce McMillan (Grades 3-5)

FOOD EXPERIENCE

Step by step instructions for the food experience.

DAY ONE:

1. Students will get into groups of 4.
2. Provide each group with a sampling of the various ingredients available for use.
3. Students should complete a science/written observation page, with extra section for tasting notes.
4. Students will have time to decide on a combination that they wish to use for their recipe. They are to use fractions when describing/ recording their ingredients. For instance, $\frac{3}{8}$ will be lettuces, $\frac{1}{8}$ will be peas, $\frac{1}{8}$ will be citrus, etc...
5. Students will write a recipe on the recipe card, using fractions, and turn it in.

DAY TWO:

1. Ingredients will be pre-prepared and in a line for the students to gather what they need for their recipes.
2. Students will take ingredients to their stations and begin making their recipes.
3. Students will plate and sample their creations. They will make notes of the flavors and discuss any changes.
4. Students will have the chance to make one change, which must be mutually agreed upon. Change must make the whole recipe still equal one whole when the fractions are added together.
5. Students will try the change and record their final recipe, checking their recipe against a rubric.
6. Recipes will be photographed by each group and typed for the recipe book.



MATERIALS NEEDED FOR THE FOOD EXPERIENCE

This should include food, equipment, and instructional materials.

Produce will depend on season. For example, the produce available stores in Spring in Chicago includes:

- radishes
- kale
- cabbage
- peas
- fava beans
- asparagus
- citrus selections (various oranges, lemons, grapefruit, tangerines, limes)
- lettuces
- early onions
- carrots
- beets

- Extra virgin olive oil
- fresh herbs - dill, mint, basil, oregano, parsley, thyme, chives
- salt, pepper

IDEAS FOR FOOD ADVOCACY

- Students can compile these and other recipes into a cookbook, with informational sections about sustainability. The cookbook can be produced and sold, with profits giving given to a local Food Bank
- Students could create or revive a school or community garden.

COMMUNITY CONNECTIONS

- Students could visit a local farmers' market or community garden to see and taste local produce.
- Students could visit a local grocery store or have a representative from a grocery store come to tell the class about the seasonality of produce in store.

RECIPE OR TAKE-HOME ACTIVITY

Students can take compiled recipes from lesson home to families (See Ideas for Food Advocacy above).