

Lesson: Eating With The Seasons

Common Core:

Next Generation Science Standard

NGSS.3.LS4.4

Make a claim about the merit of a solution to a problem caused when the environment changes and the types of plants and animals that live there may change. [Clarification Statement: Examples of environmental changes could include changes in land characteristics, water distribution, temperature, food, and other organisms.] [Assessment Boundary: Assessment is limited to a single environmental change. Assessment does not include the greenhouse effect or climate change.]

Objectives:

To understand the concept of harvest seasons and food availability.

To explain the consequences associated with eating out of season.

To identify sustainable solutions to eating foods out of season.

Key words: Vocab Tree

Externalities; Food miles; Global warming gases; Emissions

(Using Key words: Students can create a glossary, in books or on wall in classroom. Students are encouraged to practice using vocab in written or verbal sentences - perhaps writing example sentences and displaying them. Students could earn points for using the vocab in novel sentences each week).

Resources:

- PowerPoint - 'Eating With The Seasons'
- Eating With The Seasons PDF Part 1 and 2
- Paper fasteners
- Ruler
- Scissors
- Pens, markers, and any other decorating tools

Activities:

Introduction

Ask the students if they have ever thought about the growing seasons of their favorite fruits and vegetables and how they are able to eat these foods all year; what about seafood and nuts? All these food items have seasons in which they are readily available and easily sold in stores. When it is past a food items growing season, however, it must be imported from a location where it is available and this can be very costly. What type of environmental costs do the student's think could incur from transporting food long distances? What do the students think is a viable solution?

(Show Eating With The Seasons PPT)

Class Activity

Now that the students have an idea of harvest seasons and eating local foods within their appropriate season, it's time for them to make their very own food wheel! This can be done in groups or as an individual activity.

Directions:

Step One- Print out 'Eating With The Seasons' Part 1 and Part 2

Step Two- Cut out both pieces, setting Part 2 aside for later.

Step Three- Divide 'Part 1' (the complete circle) into twelve sections, with each section representing a month of the year. Label each space with a month in chronological order.

Step Four- In each section, draw the appropriate food items available for that month, i.e. Basil June-October, Peas April-November, etc...

Step Five- Now take the second piece you set aside and draw foods that are available year round like broccoli, carrots, honey, garlic, potatoes, onions, etc...

Step Six- Place the partial circle showing foods that are available year round on top of your original piece with the twelve months. Secure with a push pin.

Now you have a beginners food wheel showing local foods for Northern California! If you want to get an idea of what others are eating around the country and how their food wheels might be different, you can check out any of the states "seasonality charts".

To get a better idea of what's available in your area throughout the year, check out:

<http://www.cuesa.org/eat-seasonally/charts>

This is a great resource for checking the seasons of your favorite local foods!

Further Activity

Want to know more about where your food comes from? Try having the students make a "Food World Map" the next time they go to the grocery store or even with items they have at their home. Have your students chart five food items on a map: what it is, where did it come from, and what season is it generally available in California? Then have the students describe what methods of transportation that food item had to take to be shipped to their local grocery store: plane, boat, truck, all three, etc...

This activity will allow the students to visualize where their food is coming from and what a massive effort it is to ship these food items when they are not available in California.

Recap

Why is it important to eat local foods that are in season?

Even though California produces much of our nation's agricultural products, why is food still being imported into California?

What are some of the environmental consequences of shipping different agricultural products around the world?

What are some potential solutions to reducing "food miles"?

Healthy Growing Session (if participating)

With your school garden, be sure to plant specific plants when it's their appropriate growing season! This will make the plant happier and healthier and create a more beautiful garden for your benefit.

Keeping track of the different seasons and what can be grown during that particular season will make the students more aware of the specific needs of each plant of the differences in their growing patterns. This creates an environmental awareness and appreciation for the effort that surrounds food production and making sure we have yummy fruits and veggies to eat!

You can have your students use their new food wheel or have them do further research on when certain plants can be used in their gardens and have them prepare a seasonal growing chart for the school garden.