

Lesson 1: From Farm to fork

Common Core Standards:

Next Generation Science Standards:

NGSS.K.ESS3.1

Use a model to represent the relationship between the needs of different plants and animals (including humans) and the places they live. [Clarification Statement: Examples of relationships could include that deer eat buds and leaves, therefore, they usually live in forested areas; and, grasses need sunlight so they often grow in meadows. Plants, animals, and their surroundings make up a system.]

Time: 1hr

Objectives:

To describe the processes that food goes through from the farm to your plate.

Key words: Vocab Tree

Organic; Pasteurization (heat treatment); Microorganisms; Food miles

(Using Key words: Students can create a glossary, in books or on wall in classroom (word wall). 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 - ‘Can I Eat It?’
- A collection of lunch box foods (either pictures on board, cut out from magazines, or real food)
- Paper
- Cheeseburger Food Tree

Activities:

Introduction

Using ‘Can I Eat It’ PPT, show the picture of a carrot pulled out of the ground. Ask whether you could eat that carrot now? Repeat for plums, potatoes, milk, lamb, chicken, and wheat, OR have children bring real food to share.

Discuss what makes an item “organic” or not. (Organic foods are not treated with synthetic pesticides or chemicals, sewage sludge, or bioengineering [hormones or antibiotics]).

(Further Discussion - students could think of their own food, discuss with their peers and feed

back to the group)

Class activity

Creating a food tree: Have students draw a picture of a cheeseburger, including all of the components (bun, meat, tomato, cheese, lettuce, etc.). Ask them to describe how each can be traced back to the soil. (More advanced grades / students could do this individually or in groups). (See ‘Cheeseburger Food Tree’ doc for example).

Examples

Bun - flour, wheat plant, seed, soil

Meat - cow, grass/grain, seed, soil

Tomato/lettuce - plant, seed, soil

Cheese - milk, cow, grass/grain, seed, soil

Group Activity

Each group or individual gets one food item (*more advanced students can be given more complex food items, such as chocolate, cake, spaghetti, pizza, or cookies. Less advanced students could be given more simple foods, such as apple juice, vegetables, or honey*)

Have students draw the food item in the middle of a page. Groups then discuss how the food came to be, and how it got from its natural state to their lunch box. Students can then draw pictures, or write bullet points to show these processes.

Teacher circulates asking questions: Stimulate them to think about transport, packaging and marketing. Once pages are filled, a few students are nominated from each group to explain their drawings to the class.

For less advanced students, give them these examples to prompt them:

Bread: wheat > flour > bread

Yogurt: cow > milk > yogurt

Mashed potato: potato plant > potato > mashed potato

Ham: pig > pork > ham

Apple juice: apple tree > apple > apple juice

Recap

Can we eat food straight from the farm? Why? (Some simple changes like picking and

washing; more complex, like heat treating or cooking).

Discussion points:

Was it possible to work out all of the factors that went into your food item? Why?

Name some food items that would be simple to describe in this way.

Which was the most complicated food to describe?

Which do you think would have been most expensive to produce? Why?

Further Activities or Homework

- Students repeat this process as a homework assignment describing a dinner, clothing or household item.
- Select one object and act out its life story.
- Compare a locally produced fruit from a commercially produced one.
- Using a map, trace the food miles travelled by a lunch item. How long did it take to travel this distance?
- Do some cooking to see the changes food undergoes (e.g. pancake mixture or frying an egg).

Assessment

Presentations to class - quality of descriptions.

Answering questions within recap.

Healthy Growing Session (if participating):

Healthy growing project introduced. Time frame explained and the aims for outcomes discussed with class. Any questions or ideas that students have can be discussed at this point. Develop garden rules with students. (clean-up, respectful behaviors, safety, only step on path, etc.)

Brainstorm with students: What to grow? Where to grow? Design garden layout. Students can take various measurements and determine which space to use for planting.

Mandatory Homework - ask students to bring in something they can use as a planting pot, but not a real pot (hats, shoes, baskets, use your imagination). It just needs to have some depth, and be able to have holes poked in the bottom.