

**Fruit Geography: Stickers and Races**

<b>Grade(s): 2-8</b>	<b>Topic: Food Origins, World Geography, Pollution, Fruit</b>	<b>Season: Any</b>
<b>Timing:</b> 60 minutes, including 5 minute RPK, 5 minute intro, 15 minute indoor fruit sticker activity, 10 minute Venn Diagram activity, 20 minute outdoor race, 5 minute conclusion and fruit sampling		
<b>Objectives:</b> <ul style="list-style-type: none"><li>• Students can explain that different fruits grow in different parts of the world because of what different ecosystems provide</li><li>• Students can categorize fruits, other plants, and animals into New England or tropical ecosystems and explain the different features of these ecosystems</li><li>• Students experience firsthand through an active game that it takes different amounts of energy to get fruit from different countries that are different distances away from the US</li></ul>		
<b>Materials:</b> <ul style="list-style-type: none"><li>• World map(s) to stick fruit stickers on</li><li>• Fruit stickers to supplement if students don't bring enough in</li><li>• Tropical vs. New England Venn Diagram written on board or laid out on ground with words written out to sort</li><li>• Measuring tape</li><li>• Signs for each fruit saying the type of fruit and how many miles it travels in big letters</li><li>• Cut pieces of fruits for relay race</li><li>• Sturdy plastic plates, cutting boards, etc. to hold fruit</li></ul>		
<b>Prep Needed:</b> <ul style="list-style-type: none"><li>• At least a week before the lesson, tell the students they need to start collecting stickers from fruit and vegetables they eat at home. Show them a few stickers you bring in and explain that almost all stickers show where that fruit or vegetable comes from. You can have a competition to see which group or student can bring in the most. You can also have them stick the stickers to a world and U.S. map after reading their origin on the sticker.</li><li>• Prepare Venn diagram and write words to sort on pieces of paper to give students</li><li>• Cut up fruit for fruit geography relay race and put it in the refrigerator (day of, ideally)</li><li>• Prepare signs to put next to each type of fruit during the race</li><li>• Calculate the distances for each fruit would have traveled using <a href="http://www.organiclinker.com/food-miles.cfm">http://www.organiclinker.com/food-miles.cfm</a> and dividing the distance (miles) by 50, and setting each fruit that many <b>feet</b> away from the start line</li></ul>		
<b>Degree of need for extra teacher or parent helper?</b> High		
<b>Journal Prompt:</b> List all of the fruits that you like to eat. Do they grow in New England? Where do you think they come from before you buy them at the grocery store?		
<b>Lesson Sequence:</b> <b>Reactivate Prior Knowledge (5 minutes)</b> Show students the fruit stickers they have collected and pass some out. What information is on every sticker? What happens to the fruit before it gets to the grocery store? As a class, brainstorm the process of a given fruit from it growing on the plant to being harvested, shipped, and transported to the US. How many people are involved along the way and what are their jobs? How many people have probably touched this fruit before you have? When		

do you think it was initially grown and harvested?

### **Introduction (5 minutes)**

Talk about the fruit stickers that the students have been collecting. Explain that today you're going to use those fruit stickers to learn about where the class' fruits and vegetables are coming from all over the world. Have the class work through what is different about a fruit coming from the schoolyard vs. coming from a country far away like Dominican Republic or New Zealand. How is the pollution different? The freshness of the fruit? Why else is it good to buy local produce and support local farmers?

### **Fruit Sticker Activity (15 minutes)**

Tell students that we are going to work on trying to figure out where some fruits in our daily lives come from. Ask them if they have ever thought about this before. We are hoping to clearly see the differences between the fruit we grow locally at school and the fruit we get at the store, and the processes that go in to both. Have students take fruit stickers they brought in, and supplement with stickers you have been saving yourself, and put the stickers on a world and US map, and discuss the patterns you see as a whole class.

### **Ecosystem Venn Diagram Game (10 minutes)**

Looking at the map, ask the students, "what part of the world do most of our fruits and vegetables come from?" Explain about the equator: that it lies at 0 longitude at the widest part of the globe, where there is a tropical climate. Ask students what they have heard about tropical climates and rainforests and then find Boston on the map. Do we lie on the equator? Do we have a tropical climate? Can we grow bananas, etc. here? Give students cards naming some plants, animals, and climate factors and have them think about whether they are present in tropical regions, in New England, or in both. Have students race to put them up on the board in the appropriate circles of the Venn diagram, or just agree where to put them as a class. Discuss afterwards and make sure that any wrongly placed cards are cleared up.

**Tropical Regions Only:** bananas, cacao, rainforest, monkeys, same weather all year, toucans, pineapple, palm trees, poison dart frogs, etc.

**New England (Temperate) Regions Only:** cranberries, apples, Boston Red Sox, snow, ice-skating, 4 distinct seasons, squirrels, etc.

**Both:** islands, rivers, cars, schools, trees, rain, bees, etc.

### **Fruit Geography Race (20 minutes)**

What if you had to use all your own energy to get the fruit you eat? What would that look like? What would that feel like? Would it change your eating habits? What fruit comes from nearby and what fruit comes from far away?

Mark out on the ground using chalk or just marking with signs the distances that fruits are in miles from a starting point. See the chart below for the distances.

Split the class into teams. There will be two rounds for this game, but the rules will be the same.

- Speed walking only (fire drill walk), no running
- Must pick up \*one\* piece of the fruit each time and put it on the team's plate / in the

*EarthWorks Orchard Curriculum*

team's container

- Every member of the team must go before anyone takes a second turn
- Everyone starts at the same point, so be sure to keep your hands to yourself and not block others' way getting to their team mates
- Must pass on the plate to the next team member
- No eating during the game!
- Remind students that not everyone has the same distance to go, and that this is part of the game. Everyone will get to eat the same fruits at the end of the game.

Place the plates/containers of fruit at the proper distances on the patio/in the classroom. See website and calculation under "Prep Needed" section

**ROUND ONE**

Assign each team a fruit. Give each team a plate and tell them that they have TWO MINUTES to get as many pieces of their fruit as they can. At the end of two minutes see who was able to get the most and discuss why this occurred.

**ROUND TWO**

Give each group a "shopping list" with general categories of the types and amounts of fruit they need and see who can get theirs traveling the shortest distances.

After both rounds, share fruit from the bags and discuss what they noticed. Who had to go the furthest? Why? What happened when they went "shopping"? What does this mean in terms of the fruit they eat at home? What if all their fruit had come from very near by? Would they have gotten more? Less? Why/why not?

**Conclusion and Fruit Snacking (5 minutes)**

Allow every student to eat one or some of the untouched fruit or other items in your fruit geography game while you review what they learned about tropical vs. New England ecosystems and what goes where, where in the world their fruit stickers came from, and how much energy it took them to get fruit in the Fruit Geography Race.

**Vocabulary**

Ecosystem  
Energy  
Local  
Origin  
Pollution  
Transportation  
Tropical

**Vocabulario**

Ecosistema  
Energía  
Local  
Origen  
Polución  
Transportación  
Tropical

**Extensions / Homework Ideas:**

- Look at the labels of packaged foods and discover where they come from. Do they contain any fruits? See *Food Geography* worksheet.
- Have students think about how their diet would change if they ate only food from around where they live? What would they still get to eat? What would they give up? How would they like the change? See *Food Geography* worksheet.