Add a Little Spice to Your Life

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Grade Level
6

Duration
3-4 class periods

Adapted from: NGS xpeditions
http://education.nationalgeographic.com/archive/xpeditions/lessons

National Standards

GEOGRAPHY
Element 1: World in Spatial Terms
1. How to use maps and other geographic representations to understand and communicate information.
Element 2: Places and Regions
3. The physical and human characteristics of places.

AZ Standards

ELA
Reading
Integration of Knowledge and Ideas
6.RI.7 Integrate information presented in different media or formats (e.g., visually, quantitatively) as well as in words to develop a coherent understanding of a topic or issue.

Writing
Production and Distribution of Writing
6.W.4 Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.
6.W.6 Use technology, including the internet, to type and publish writing as well as to interact and collaborate with others; demonstrate sufficient command of keyboarding skills to complete a writing task in a single sitting.

Arizona Social Science Standards

GEOGRAPHY
The use of geographic representations and tools helps individuals understand their world.
6.G1.1 Use and construct maps, graphs, and other representations to explain relationships between locations of places and regions. Key concepts include major landforms and water bodies, countries, cities, ecosystems, climate, languages, religion, economic systems, governmental systems, population patterns, disease, trade routes, and settlement patterns
Examine human population and movement helps individuals understand past, present, and future conditions on Earth’s surface.
6.G3.1 Analyze how cultural and environmental characteristics affect the distribution and movement of people, goods, and ideas. Key concepts include but are not limited to language, land and sea transportation and trade routes
Global interconnections and spatial patterns are a necessary part of geographic reasoning.
6.G4.2 Describe how natural and human-made catastrophic events and economic activities in one place affect people living in nearby and distant places. Key concepts include but are not limited to disease, war, items exchanged, ideas spread along trade routes, and natural disasters

HISTORY
The development of civilizations, societies, cultures, and innovations have influenced history and continue to impact the modern world.
6.H1.2 Explain the causes and effects of interactions between cultures and civilizations. Key concepts include but are not limited to trade, competition,
Overview

Spices are part of our lives and our culture. Knowing where they come from and how they are grown will help students have a deeper appreciation and understanding of these items and the countries that produce them. Using a technology tool, students will share their information with the class.

Purpose

In this lesson students will learn where and how spices are produced for our use. They will research
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about the climate, terrain, agricultural practices where spices are grown while also learning about cultures that use these spices. This lesson includes strategies for diverse learners (ELLs).

Key Vocabulary

observation: a record of what is seen
spices: vegetable products used to flavor foods
terrain: land
agricultural: farming, growing of plants

Materials

- Cinnamon spice instant oatmeal or other food (like ginger snaps) with a strong-smelling spice
- Microscopes or sets of magnifying glasses
- Observation Guide
- World Map
- Classroom atlases or online maps
- Computer lab
- Land of Spices Answer Key
- Computers with internet
- Land of Spices World Guide
- Popplet Scoring Guide
- Spices such as anise, cloves, cinnamon sticks, cardamom, caraway seeds, allspice, or others you might like. Make sure they are from a variety of countries.

Objectives

The student will be able to:

1. Observe qualities of spices and communicate findings.
2. Locate where specific spices are grown on a world map.
3. Gather information using computer technology or using library resources.
4. Create a Popplet.
5. Present the information orally.

Procedures

SESSION ONE

Engage:
1. Divide students into groups of four. This will be their group for the next 3-4 days.
2. Bring in cooked packet of cinnamon spice oatmeal. Pass it around and have the students orally describe what they smell. Have them discuss (in their groups) if it reminds them of something they have eaten. You can also purchase Ginger snaps and hand them out while asking the questions above. (Grouping Option: Small Group)
3. Write the following on the board or use a document camera:
   a. List some of your favorite foods.
   b. Write down spices that you think you taste in those foods. (Preparation: Linking to Background) Remind students that there are no wrong answers. Give students a few minutes to record their thoughts in their notebooks. Have students share their answers within their group. After they are done, ask a few students to share their answers with the whole class. (Grouping Option: Small Group)

Explore:
4. Give each group four different spices along with a microscope or a magnifying glass. Distribute to each student the Observation Guide to record his/her findings. (Application: Hands on)

5. Each student will choose one spice and record the observations on the Observation Guide. Make sure and stress that students need to use descriptive words to explain their spice. (Integration of Processes: Writing)

SESSION TWO

7. Take students to computer lab or library. Distribute a world map to each student. Have students look up where the spices come from. Student may use the sites below or conduct own research.


8. Once students find the information, have them label the country on the map and list the spice grown there. Some spices may be grown in more than one country. (Grouping Option: Small Group) Review together using answer key or post the answer key so as they finish they can grade their own work. (Assessment: Group)

Explain:
9. Now have students select this spice or a spice they want to learn more about. Using computers or library resources, students will research the information needed for the Land of Spices Research Guide. Websites from the Source section of this lesson can be used to get students started. (Application: Promotes engagement)
SESSION THREE

Elaborate:
10. Students, as a group, will create a Popplet (http://popplet.com/) recording the required information using the Popplet Scoring Guide. (Grouping Option: Small Group) (Integrated Processes: Reading and Writing)

Evaluate:
11. Student groups will present their Popplet sharing their findings about their spice and country they researched. This can also be done as a PowerPoint or poster board. (Integration of Processes: Speaking)

Assessment

Geography
The mapping exercise can be graded for correctly labeling the World map. Mastery will be considered a score of 90% or higher.

ELA and Geography
The Observation Guide, Land of Spices Research Guide, and Popplet can be graded for accuracy and completeness. Mastery will be considered a score of 90% or higher.

A test for language acquisition can be given by having the students correctly match the Key Vocabulary Words to their definitions. Mastery will be considered a score of 80% or higher.

Extensions

Play a game: Renaissance, Become a Spice Trader http://www.learner.org/interactives/renaissance/spice-trade/

Bring in scented candles and see if student groups can identify the spice used.

Students could find spices from home and continue the observations and other activities.

Students could look for patterns in the cultural significance of some of the spices.

Sources

World Map http://geoalliance.asu.edu/azga/sites/default/files/maps/World-at.pdf

Have a question? http://askabiologist.asu.edu/home


Plant Information http://plants.usda.gov/java/

Learn how your cells send messages to the brain on things like feel or taste: http://askabiologist.asu.edu/epithelial-cells