

The Port of Baltimore and the World Wide Web of Spice Trading

Grade: 4

Class Period/Duration: 1 class period or 60 minutes

VSC Economics Indicators/Objectives:

Grade 4:

- 4.B.1. Describe the types of economic systems in Maryland
 - b. Give examples of kinds of goods and services produced in Maryland during different historical periods
- 4.A.4. Describe regional economic specialization in Maryland and the ways people live and work
 - b. Describe how specialization results in the interdependence of people
- 4.A.2. Explain how limited economic resources are used to produce goods and services to satisfy economic wants in Maryland
 - a. Describe how scarcity and the availability of economic resources determine what is produced and the effects on consumers
- 4.A.3. Explain how technological changes have affected production and consumption in Maryland
 - b. Describe how entrepreneurship inspired technological changes and affected business productivity

VSC Geography Indicators/Objectives

Grade 4

- 3.A.1 Use geographic tools to locate places and describe the human and physical characteristics of those places
 - a. Construct and interpret a variety of maps using map elements

Social Studies Skills and Processes

Grades 3-5

- 6.D.1. Identify primary and secondary sources of information that relate to the topic being studied
 - c. Locate and gather data and information from appropriate non-print sources, such as... maps, photographs, illustrations, interviews and oral histories ...

Objectives:

Students will be able to:

- give examples of goods produced in Maryland and shipped through the Port of Baltimore during different time periods.
- describe how specialized production of spices around the world results in global interdependence.
- describe how scarcity and the availability of spices determine what is produced, and its effects on consumers.
- describe how entrepreneurial changes in production technology have affected the production of spice products in Maryland.
- locate places in the world where spices are produced and describe the globalization of spice production.

Economic Vocabulary:

goods
interdependence
technology

barter
scarcity
trade

specialized work
producer
globalization

entrepreneur
consumer

Materials/Resources

Teacher:

- Several containers of spices produced by McCormick: (Be sure to include whole black pepper, cardamom, cinnamon and cinnamon sticks, basil, oregano, and a bottle of vanilla extract)
- 5 different colors of sticky dots or sticky flags
- Transparencies of “Baltimore Harbor,” RS 1, pp. 1 and 2
- Transparency of “Port of Baltimore Facts,” RS 2, pp. 1 and 2
- Transparency of “House of McCormick,” RS 3, pp. 1 and 2
- “World Wide Web of Spice Trading,” RS 5, pp. 1-5, cards cut apart, one for each student
- Transparencies of “Spices,” RS 6, pp. 1-4
- 1 copy of “Economic Vocabulary Cards,” cut apart and mounted on tagboard
- Optional: cards from “Where Did It All Begin?” RS 8

Students:

- Desk map of the world or a copy of a world map
- 1 card from “World Wide Web of Spice Trading,” RS 5, pp. 1-5
- A whole black peppercorn
- Optional: other spices to observe and smell
- 1 copy of “The Port of Baltimore and the Global Spice Industry,” RS 7

For each small group of students:

- 1 set of pictures from “Pictures of Spice Production,” RS 4, pp.1-4

Teacher Background:

Spices have been an important trade good for centuries. During the Middle Ages, black pepper and other spices from Asia were highly valued. In the late 1700s black pepper was a highly valued commodity, and was even used as currency. By the 1900s the Port of Baltimore had developed into one of the leading centers of shipping on the eastern seaboard. It was in this economic growth period that Willoughby McCormick established a spice company along the harbor area of Baltimore. Many businesses like McCormick established themselves along the harbor at Market Street, later named Baltimore Street. Many of these businesses relied on the strength of their imports and exports through the port for their very survival. These businesses depended on quick, efficient shipping. Today many more businesses ship even more products through the Port of Baltimore. In the 21st century, as the world market becomes one giant international market, the Port of Baltimore is expanding and preparing to play an even greater role in the global world economy. See individual fact cards on “Where Did It All Begin?” RS 9 for additional information.

Lesson Development:

1. Display transparencies of “Baltimore Harbor,” RS 1, p. 1. Have students examine the inner harbor area as shown in this photo taken during the 1960s. Then show students the second photo from RS 1, p. 2. Have students locate some of the piers and ships shown in this closer

view of the harbor during the same time period. (Students may notice the Power Plant in this photo. It can also be noted in the first photo.)

2. Ask students if they have ever been to the harbor area in Baltimore and have seen some ships. Ask students to think about what those ships may have been transporting, where they might have come from, and why they might have been in the Baltimore harbor. The ship in the lower right hand corner appears to have containers waiting on the pier.
3. Ask students to name some products that could be shipped to different ports. Then ask students to identify some products that might be shipped in and out of the Port of Baltimore currently. List some of these products on a chart.
4. Display a transparency of “Port of Baltimore Facts,” RS 2. Have students read these facts to find out more about the port and the products that currently pass through it. Ask students which of these products their families use. Compare the list generated by the students in the previous step with the list on RS 2.
5. Display the vocabulary term **entrepreneur**. Tell students that there was an entrepreneur in Maryland during the late 1800s named Willoughby McCormick and that in 1889 he had started a business selling fruit syrups, root beer, and nerve and bone liniment door-to-door in the Baltimore area.
6. Show students some containers of spices made by McCormick Spice Company. Have a students examine the label to discover where the company is located. Tell students that today McCormick is considered the largest global producer of spices and seasonings, extracts, and seasoning mixes.
7. Explain to students that by 1896 Willoughby McCormick had decided to specialize and focus his new business in spices and extracts. In order to expand his business, McCormick decided to buy another spice company, the F. G. Emmett Spice Company of Philadelphia, and bring all the spice manufacturing equipment to Baltimore.
8. Tell students that in the 1900s the McCormick Company was trading with the East and West Indies, South Africa, Europe, and Central and South America. Spices from around the world were being imported through the Port of Baltimore.
9. Display transparencies of “House of McCormick,” RS 3, pp. 1-2. Tell students that the first “House of McCormick” was built in 1921 in the harbor area. Have students examine the pictures of the McCormick building in 1936 and 1951. Ask students if there were any advantages to having the factory located near the water? Have students note the piers, boats, and warehouses. Have students discuss some reasons why businesses would have liked being situated near the piers.
10. Tell students that when McCormick & Company was situated in downtown Baltimore the smells of different spices used to fill the air around the harbor, depending on which spice was being processed that day. Ask students to suggest some workers that would have been needed to produce these spices. You may list some of their ideas on a chart.
11. Have students examine some photos of workers in the old McCormick plant by dividing students into small groups. Give each group a set of the pictures from “Pictures of Spice

Production,” RS 4. Allow students time to examine these photos and discuss the jobs that these people were doing. Tell students that we don’t know when most of these photos were taken, but we think they were taken at least 50-75 years ago because of the clothing the people are wearing.

12. Ask students to identify some of the jobs that the workers are doing in the pictures. (Possible answers include packer of spices into boxes, machinist to run machines that fill boxes, quality control/checker, packer of boxes into cartons, salesman/advertiser, taste tester/quality checker, warehouse worker.) Introduce the vocabulary word **specialized work**. Explain to students that workers like these in the pictures usually had one job that they specialized in doing, and they did that job all the time. Each person in the factory depended on other workers to help get the spices ready to ship out to consumers. Explain that these workers were **interdependent**.
13. Have students look at the photo of the man carrying a bag and the woman using her hands to put spices in the cans. Ask students if a warehouse worker today would carry a bag of spices like the man in the picture or if a worker would fill cans with spice using their hands. Display the vocabulary term **technology**. Have students look at the other photos. Have students identify some of the technology that workers were using in these photos. Ask students if they think spices are still prepared and packaged the same way today.
14. Tell students that the McCormick Company was a leader in two ideas that were new technology in the early 1900s. In 1910 McCormick was one of the first producers of tea in gauze pouches, now called tea bags. Then in 1938 the McCormick research team developed a spice sterilizing process called “McCorization” which made their spices the safest and cleanest available, without losing any flavor. Have students name some new technology that might be used today to prepare spices (e.g. robots, computers, scanners, fork lifts, trucks.) Discuss how new technology is continually being developed and this new technology changes the way workers do their jobs.
15. Introduce the vocabulary word **interdependence**. Explain that the McCormick Company imports a variety of spices from at least 35 different countries. Each place grows and specializes in certain spices and that the company depends on each place to produce a specific spice. On a wall map of the world locate Maryland and Baltimore. Have students locate Indonesia (which includes the Molucca Islands, which were formerly called the Spice Islands). Tell students that most spices used to come from this area, but today spices are grown in many different parts of the world and shipped to McCormick through the Port of Baltimore.
16. If possible, give students a peppercorn to examine. Explain to students that peppercorns were weighed and used as a medium of exchange by early traders. Ask students to imagine bartering or trading for all their wants using these black pepper seeds. Tell students that today black pepper is still the number one selling spice in America. Americans consumed more than 112 million pounds of pepper last year. (Additional information about black pepper may be found at www.mccormick.com.)
17. Pepper is grown by **producers** in several areas of the world and then shipped to McCormick. Using the wall map of the world or world desk maps, have students locate **India, Brazil,**

Indonesia, Vietnam, and Malaysia. Place a sticky dot or flag of one color on each of these places. (Students may note that these locations are near the equator. Share with students that pepper is a tropical vine that grows in countries with a strong seasonal monsoon period followed by diminishing rain and a dry period for ripening the berries. The vine can grow to 100 feet and is supported by either a stake or host tree. Green pepper is immature berries, black pepper is mature green berries that have been sun dried, and white pepper is the white pulp inside the mature berry.)

18. Distribute world desk maps and one of the cards from “World Wide Web of Spice Trading,” RS 5 to each child. Tell students that these are only some of the spices that McCormick produces but these spices are commonly used today. Have students work in pairs to locate the places where their spices are grown. Then have students trace some possible routes these ships may take to get the spices to the Port of Baltimore.
19. Hold up some cinnamon sticks and ground cinnamon. Ask students who have cinnamon on their card to stand. Have a volunteer come to the world map and locate the places where cinnamon is grown. Mark these places with a sticky dot of a different color. (**Indonesia**-primary source of cinnamon, **Vietnam**-called Saigon cinnamon, and **Sri Lanka**-“true cinnamon” but not widely used in U.S.A. because of its unique flavor)
20. Show the vanilla extract bottle and have students with vanilla beans on their card stand up. Tell students that the vanilla extract is made from vanilla beans. Have students locate these places on the map and mark them with a third color of sticky dots or flags. (**Indonesia, Madagascar, Uganda, and Tonga**)
21. Have students use the fourth color of sticky dots to mark the location of the **Canada, Mexico, Jamaica** and the **West Indies, Brazil, Peru, Australia, Spain, Portugal, France, Italy, Greece, Turkey, Iran, and Egypt** on the wall map.
22. Set up the room as a map of the world. Identify the four corners of the classroom as Asia, Australia, Europe, and Africa. Locate North America and South America in the center areas of the room. Lay a string across the middle of the room to indicate the equator. Have the students use their cards from “World Wide Web of Spice Trading,” RS 5. Have students go stand in the continent of the world where their country/place is located. If the country is near the equator, have the student stand near the equator. Place a student on North America, approximately where Baltimore would be located. Give a big ball of yarn to the Baltimore student. Have this student pass the ball to another student where a spice comes from. Have that student loosely wrap the yarn around their hand. That student then passes the ball of yarn back to Baltimore, who wraps the yarn around the hand, and then passes it on to another student in another part of the world. Continue passing the ball back to Baltimore and then to another location in the world. This will create a “web of trading” that shows how the Port of Baltimore is the center of the importing of spices. Ask students to explain what this “web” shows us about the production of spice products.
23. Have three students come to the front of the room. Hold up the one bottle of vanilla. Tell the three students that they all three want vanilla for baking cookies. Ask students if there is enough for all three of them to have a bottle of vanilla. Introduce the vocabulary word **scarcity**. Ask students what happens when there is a scarcity of resources (For example,

there is not enough for everyone and some people can't get as much as they want, the price of the resource goes up so only some people can it, people have to find something else to use instead.)

24. Tell students that several years ago the crop of vanilla beans had been very poor due to cyclones and poor weather during flowering time where vanilla beans grow. Ask students what effect these events had on the production of vanilla extract (vanilla beans and vanilla extract were very expensive so people used less or found something else to use instead).
25. Ask students what might happen if there was an anise crop failure in Spain or a hurricane ruined the nutmeg trees in the West Indies. Discuss how a shortage, or scarcity, of a crop could affect the production of spices, the price of the spices for the producer and the consumer, and the availability of this spice.

Assessment:

Have students complete “The Port of Baltimore and the Global Spice Industry,” RS 7.

Additional activities:

- Display a transparency of “Spices,” RS 6, p. 1. Have students discuss the specialized production of a spice such as black pepper, cinnamon, and vanilla beans, in only a few places. Display transparencies of “Spices,” RS 6, pp. 2-4. Have students note the different spices that are grown around the world and how globally interdependent the spice production web has become.
- Students may classify spices by the parts of the plant that is used. For example, black pepper is a berry, cardamom, vanilla beans, nutmeg, and mustard are the seed of the plant, ginger is the root, saffron is the stamen of the flower, sage and oregano are the leaves, chili peppers are the fruit, and cinnamon is the bark.
- Locate Baltimore and Maryland on a world map. Distribute the information cards from “Where Did It All Begin?” RS 8, to twelve students or pairs of students. Have students read each card aloud to the class. As students read about the different countries or locations around the world, locate these places in the world and discuss how all these products were coming to the Port of Baltimore. Review how the Port of Baltimore has been the place where all these spices from around the world have been coming to the McCormick plant, and that the spices come back to the port to be shipped to many different places around the world.

References:

Information about individual spices can be found at <http://en.wikipedia.org> or Spice Encyclopedia and the Spice Grower's Journal at <http://www.mccormick.com>.

The Great Port of Baltimore: Its First 300 Years 1706-2006 by Helen Delich Bentley & F. Key Kidder. ISBN-10: 1-4243-0435-0 and ISBN-13: 978-1-4243-0435-6

Economic Vocabulary Cards

goods

Physically tangible objects that can be used to satisfy economic wants, including but not limited to food, shoes, cars, houses, books, and furniture.



technology

Skills, ideas, methods, tools, machines, and other things used to perform activities. Technology changes over time and affects the way we live, work, and play.



specialized work

A worker does one job or part of a job.



interdependence

People depending on one another for resources, goods, and services. When people and businesses specialize, they become interdependent.



scarcity

It occurs when people can't get everything they want and people have to make choices.



producer

An individual or group who combine economic resources to make goods and/or services.



Economic Vocabulary Cards

consumer

An individual or group who uses resources, goods and services to satisfy economic wants.



trade

To engage in the exchange, purchase, or sales of resources, goods, or services.



entrepreneur

An individual or group who takes the risk to start a new business or introduce a new good or service in the hopes of earning a profit.



barter

To trade goods and/or services for other goods or services without using money.



globalization

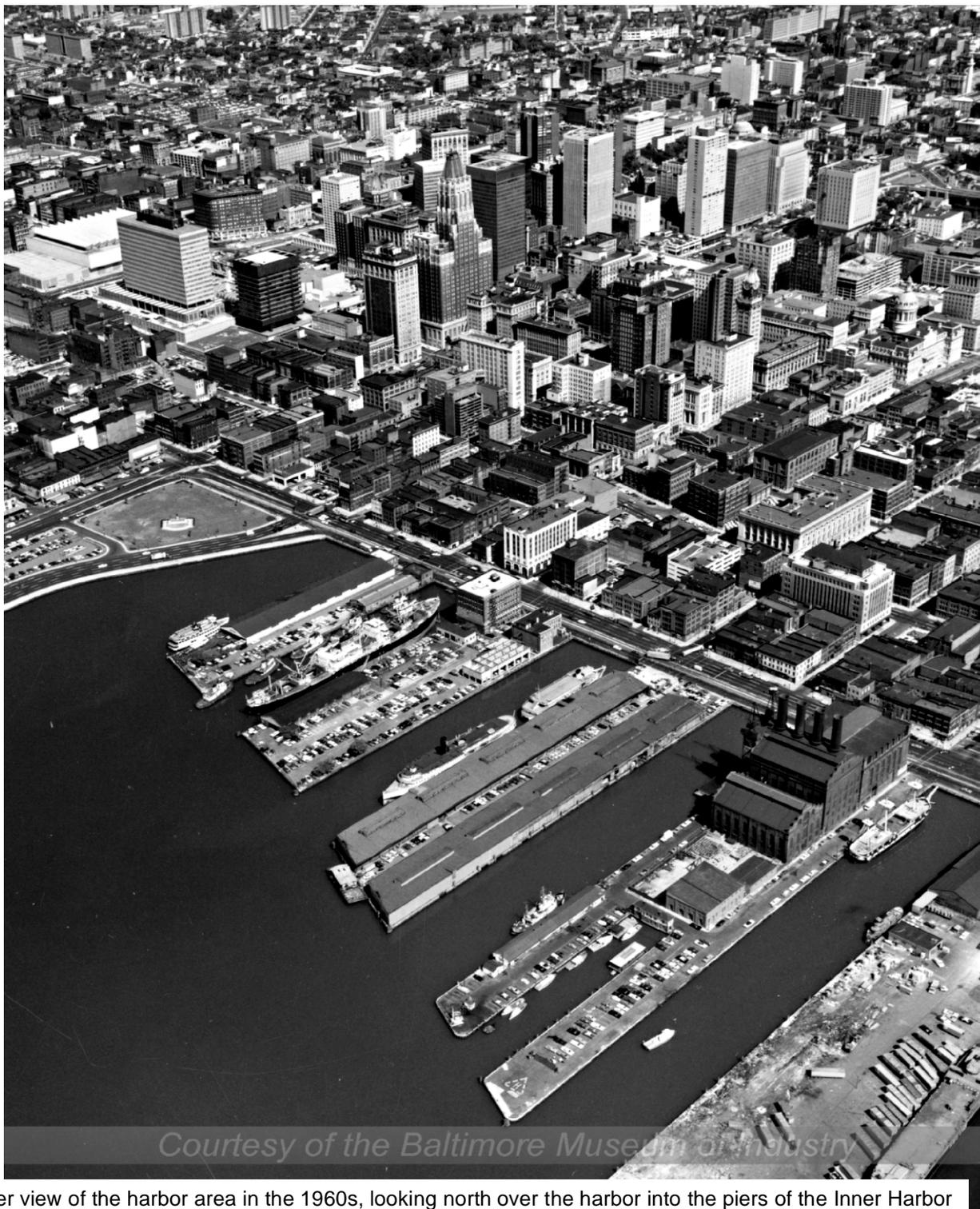
The act or process of spreading the economy and world-wide trade. There is an increase in interdependence among regions of the world.



Baltimore Harbor



1960s view of the harbor area, looking south over the harbor



Closer view of the harbor area in the 1960s, looking north over the harbor into the piers of the Inner Harbor

Port of Baltimore Facts

- Baltimore is one of the busiest ports in the United States. Approximately 2,300 vessels visit the port each year.
- From automobiles to zinc, from Akron to Zhenjiang, the maritime center handles more than 30 million tons annually of all types of cargo from around the world.
- More than 500,000 automobiles roll through Baltimore's terminals annually.
- Clothing, furniture, steel, and electronics are part of the 40 million tons of bulk and container cargo that is moved through Baltimore.
- Raw products imported through the Port of Baltimore include paper and other forest products, ore, petroleum, coal, sugar, soybeans, and grains.
- Mercedes, Chrysler, and Hyundai and Kia use the Fairfield Auto Terminal to move cars through the Port of Baltimore.
- McCormick imports commodities from 35 nations through the Port of Baltimore to produce more than 15,000 products, more than two-thirds of which are made in Maryland. (*The Great Port of Baltimore*, p. 40)

<http://www.portofbaltimore300.org/about.htm>

House of McCormick





1951

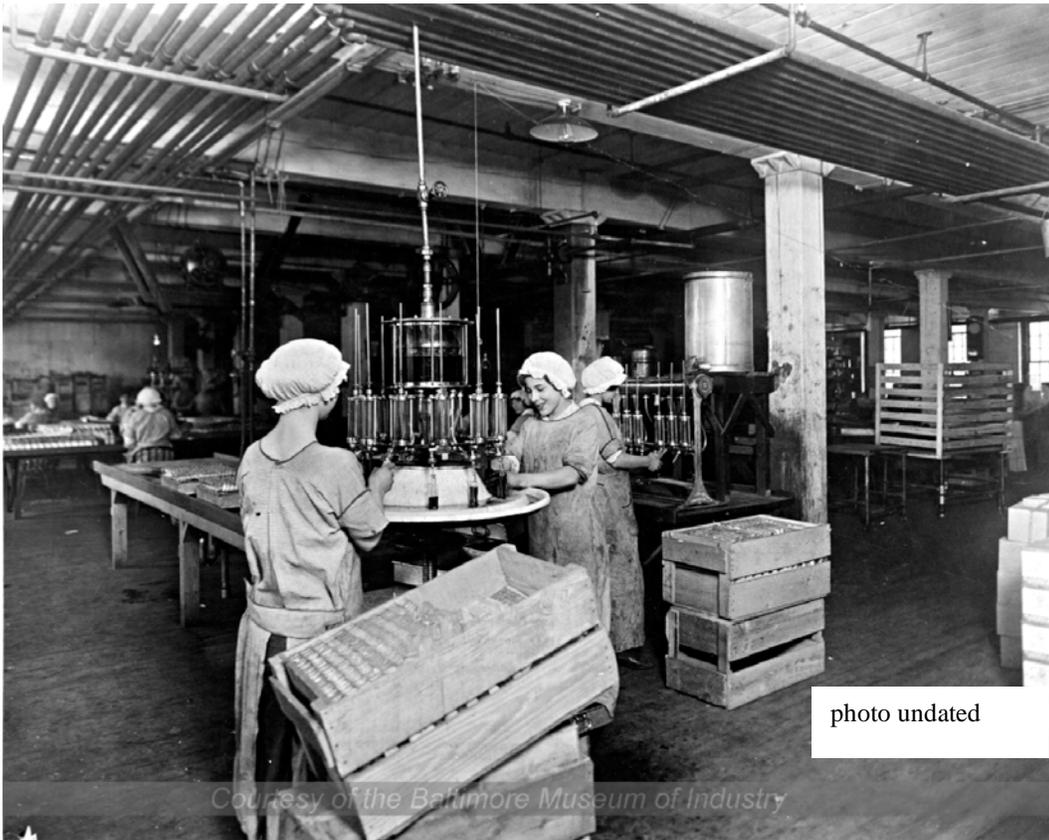


1951

Pictures of Spice Production









World Wide Web of Spice Trading

| | |
|---|---|
| <p>India</p>     <p>black pepper</p> <p>cardamom</p> <p>ginger root</p> | <p>Sri Lanka</p>    <p>cinnamon</p> <p>cardamom</p> |
| <p>Brazil</p>   <p>black pepper</p> | <p>Pakistan</p>   <p>cumin</p> |
| <p>Canada</p>   <p>mustard seeds</p> | <p>China</p>    <p>turmeric</p> <p>ginger root</p> |

Central America



cardamom



allspice



Spain



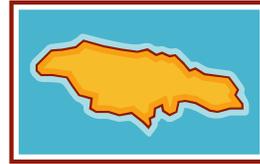
saffron



France



saffron



Jamaica

allspice



Indonesia
includes Molucca Islands
(formerly Spice Islands)



black pepper



Peru



turmeric



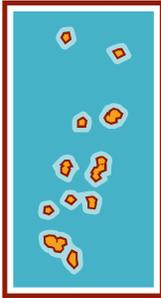
cloves

cinnamon



vanilla



| | |
|--|--|
| <p>Uganda</p>   <p>vanilla</p> <p><i>Vanilla beans</i></p> | <p>Tonga</p>   <p>vanilla</p> <p><i>Vanilla beans</i></p> |
| <p>Madagascar</p>   <p>cloves</p>  <p>vanilla</p> | <p>Vietnam</p>   <p>black pepper</p>  <p>cinnamon</p> |
|  <p>Portugal</p>  <p>saffron</p> <p><i>Crecentia saffron L.</i></p> |  <p>Italy</p>  <p>sage</p>  <p>saffron</p> |



oregano



Egypt

basil



cumin



bay leaves



mint



Iran

saffron



cumin



Syria

cumin



Greece



sage



West Indies/Bahamas



mace (red covering over nutmeg seed)



nutmeg seed inside nutmeg fruit

United States of America



sage



mint



chili peppers

Malaysia



black pepper



allspice



Mexico

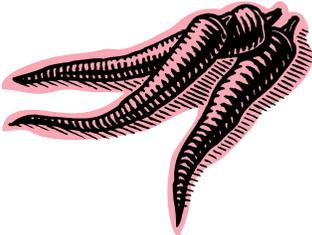


chili peppers

oregano



Resource Sheet 6
Spice Cards

| | |
|---|---|
| <p>India Guatemala Sri Lanka</p>  <p>cardamom</p> <p>image from http://www.avalon.net/~slainte/cardamom.html</p> | <p>India Indonesia Brazil Malaysia</p>  <p>black pepper</p> <p>image from http://en.wikipedia.org/wiki/Image:Piper_nigrum_dsc00198.jpg#fil</p> |
| <p>Madagascar Indonesia Uganda Tonga</p>  <p>vanilla beans</p> <p>image from http://www.vanilla.com/html/facts-beans.html</p> | <p>Spain France Portugal India Italy</p>  <p>saffron (from crocus)</p> <p>image from http://en.wikipedia.org/wiki/Saffron</p> |
| <p>Indonesia Vietnam Sri Lanka</p>  <p>cinnamon</p> <p>image from http://en.wikipedia.org/wiki/Cinnamon</p> | <p>Mexico United States</p>  <p>chili peppers</p> |

Turkey

Mexico



oregano

China

India



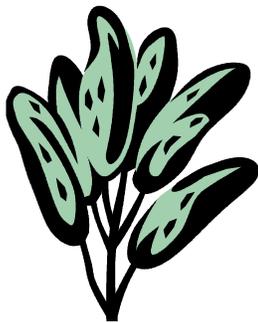
Australia (crysta

ginger root

Greece

Italy

United States



sage

Spain



anise

Jamaica

Guatemala

Honduras

Mexico



allspice

image from <http://en.wikipedia.org/wiki/Allspice>

Egypt

United States



basil

**Molucca Islands of
Indonesia**
(formerly Spice Islands)

**Zanzibar
Madagascar**



cloves

Image from <http://en.wikipedia.org/wiki/Cloves>

Iran

India

Syria

Pakistan

Turkey



cumin

image from <http://en.wikipedia.org/wiki/Cumin>

Indonesia

West Indies



mace

(red covering over seed inside nutmeg fruit)

Image from <http://en.wikipedia.org/wiki/Image:NutmegGrenada-jhw.jpg>

West Indies



nutmeg

(seed from nutmeg fruit)

image from <http://en.wikipedia.org/wiki/Nutmeg>

United States

Egypt



mint

Canada



mustard

image from http://en.wikipedia.org/wiki/Mustard_seed

India

Peru

China



turmeric

image from <http://en.wikipedia.org/wiki/Turmeric>

Turkey



bay leaves

image from http://en.wikipedia.org/wiki/Bay_leaf

The Port of Baltimore and the Global Spice Industry-Answer Key

1. Today the Port of Baltimore is part of the global spice trade because
 - Ⓐ cooks on all ships use spices from Baltimore's harbor.
 - Ⓑ **McCormick imports and exports spices around the world.**
 - Ⓒ the aroma of McCormick spices fill the air around Baltimore.
 - Ⓓ Baltimore's port workers like spicy food from around the world.
2. When producers decide to narrow their production to specific goods, this causes _____
 - Ⓐ a scarcity of economic resources.
 - Ⓑ less trading or bartering for goods.
 - Ⓒ people to depend less on each other.
 - Ⓓ **more interdependence among people.**
3. If a natural disaster destroyed the yearly crop of black pepper in India, how would that affect producers and consumers around the world?

Possible responses should include at least 3 of the following points:

- India is one of the few producers of black pepper, and a natural disaster would decrease the amount of pepper available in the world.
- When there is a shortage or scarcity of a natural resource, then the price of the resource usually goes up when it is sold to producers in other places.
- Sometimes there is a scarcity and the natural resource is not available for any price. Producers like McCormick & Company can not produce black pepper to sell for consumers to buy.
- If McCormick & Company, or any other spice company, can not buy enough black pepper at any price, then consumers at the store will not be able to buy black pepper.
- Restaurants and cooks will have to find another spice to use in recipes instead of pepper. That could increase the demand for that alternative spice and raise its price.
- The lack of black pepper will also decrease the amount of spices being shipped into and out of the Port of Baltimore.
- Because of the interdependence of specialized workers, the decrease of port cargo like black pepper could affect the jobs of port workers and truckers.

Where Did It All Begin?

| | |
|---|---|
| <p>The Maluku Islands (formerly the Moluccas) are the group of islands that were most commonly referred to as the Spice Islands. They are located in Indonesia, between Sulawesi (Celebes) and the New Guinea. Sometimes the term Spice Islands is also used to refer to the Tanzanian group off East Africa, which consists of Zanzibar, Mafia Island and Pemba. These islands were the main source of spices traded around the world until the late 1700s.</p> <p>(http://en.wikipedia.org/wiki/Spice_Islands)</p> | <p>Some spices were worth so much that they were used as currency, especially pepper. Some other prized spices in the early ages were ginger, cloves, cinnamon, and nutmeg.</p> <p>(<i>History of Spices</i> http://www.mccormick.com)</p> |
| <p>McCormick & Company was founded in 1889 by twenty-five year old Willoughby McCormick and run from in his Baltimore home. He had three salesmen who peddled his fruit syrups, root beer, and nerve and bone liniment door-to-door.</p> <p>(http://www.wackyuses.com/wf_mccormick.html)</p> | <p>Seven years later, in 1896, McCormick bought the F. G. Emmett Spice Company of Philadelphia. All the spice machinery was shipped to Baltimore. By 1900 the company was trading with the East and West Indies, South Africa, Europe and Central and South America.</p> <p>(http://www.wackyuses.com/wf_mccormick.html)</p> |
| <p>In 1910 McCormick was one of the first producers of tea in gauze pouches (now called tea bags).</p>  <p>(http://www.mccormick.com)</p> | <p>In 1938 the research team at McCormick developed a spice sterilizing process called, “McCorization.” This process made the spices the safest and cleanest available with no loss of flavor.</p>  <p>(http://www.mccormick.com)</p> |

Where Did It All Begin?

Many businesses which lived and died on the strength of imports and exports, set up shop hard by the harbor at Market (later Baltimore) Street.



(The Great Port of Baltimore by Helen Delich Bentley & F. Key Kidder, p. 25)

In 1921 the company built the “House of McCormick” at the Baltimore Harbor.



<http://www.mccormick.com>

The McCormick overseas Trading Corporation was formed in 1940, and was later named the International Division.

<http://www.mccormick.com>

In 1947, McCormick acquired A. Schilling & Co, another producer of spices and extracts, and was able to distribute its products coast-to-coast. In 1947 the company also joined with the Hernandez family in Mexico to produce and distribute McCormick products there.

http://www.wackyuses.com/wf_mccormick.html

“Today McCormick imports commodities from 35 nations through the Port of Baltimore to produce more than 15,000 products, more than two-thirds of which are made in Maryland.”

The Great Port of Baltimore by Helen Delich Bentley & F. Key Kidder, p. 40

“The Port of Baltimore ...is positioned to play an even greater role in the future global world economy where supply and demand are increasingly served by one giant international market, instead of regional or national markets as in the past.” Today ..more goods will be transported greater distances ... in the global supply chain.”

The Great Port of Baltimore by Helen Delich Bentley & F. Key Kidder, p. 63