

All Aboard – Trains In, Around, and Through Maryland Teacher Guide

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Objectives:

Students will be able to:

- explain how people acquired goods and resources brought to Baltimore.
- describe ways people modified the environment of Maryland as a result of changes in technology.
- explain why a railway station was built at Ellicott's Mills.
- explain how the railroad helped Baltimore and other parts of Maryland to grow.
- describe the relationship between natural resources and the production of goods and services in Maryland.

MSPAP Outcomes and Indicators:

Geography Outcome:

Students will develop an understanding of geographic concepts and processes as needed to examine the role of culture, technology, and the environment in the location and distribution of human activities.

Indicators:

- Locate places and natural features by interpreting and constructing maps using directions, legends, grid systems, boundary lines, and scales.
- Examine people's adaptation to and modification of their environment as a result of changes in technology.
- Predict the effects of living in a given geographic setting on people's lives.
- Examine how people of the state and nation are linked by transportation and communication networks.

Economic Outcome:

Students will demonstrate an understanding of the historical development and current status of economic principles, institutions, and processes needed to be effective citizens, consumers and workers in American society.

Indicators:

- Describe the relationship between available resources and the production of goods and services.
- Explain how the exchange of goods and services connects Maryland with the world.
- Analyze the historical and economic factors, which have contributed to the growth and development of Maryland's economy.

Worksheets

“All Aboard – Trains In, Around and Through Maryland”

Other Materials:

Map of Maryland, pencils, and colored pencils.

Web Sites:

- a. CSX Transportation (<http://www.csxt.com/>)
- b. Sea-Land Service Inc. (<http://www.sealand.com>)
- c. Maryland and Pennsylvania Railroad Preservation Society (<http://www.jarrettsville.org/mapa/index.htm>)
- d. Western Maryland Scenic Railroad (<http://www.wmsr.com>)
- e. B&O Railroad Station Museum in Ellicott City (<http://www-rcf.usc.edu/~gkoma/bando.bak.html>)

Teacher Background

Before students start the lesson, it would be most helpful to do the following:

- review the regions of Maryland and their location on a map.
- review economic and geographic terms which are listed in the activities.
- become familiar with web sites used in the lesson.

Lesson Introduction and Motivation

Read the following to the students:

"The first settlers of Maryland transported themselves, their products and services by foot, by ship, and by wagon. The laws of England allowed the colonists to load foreign-bound ships only at certain places called ports of entry so that the king of England could collect a tax. Many farmers lived far from such ports. It was hard for them to sell their crops unless they had their own wharves where small boats could be loaded and sent to the nearest port of entry."

Using the map of Maryland, point to some of the towns which were early ports (Baltimore, Chestertown, St. Michaels, St. Mary's, Joppa, Port Tobacco, Leonardtown, Annapolis, Oxford). Have students identify the region of Maryland where most of these ports are located (Atlantic Coastal Plain).

About 100 years after the arrival of the Ark and Dove, people began to settle in the western part of Maryland. A rough wagon road was the only road over which crops could be transported to Baltimore.

Use the map of Maryland and explain that there were no ports of entry near Frederick, Hagerstown or Cumberland. The Potomac River was the only river and it was not navigable because of the mountains and elevations.

The Chesapeake and Ohio Canal could not help Baltimore merchants because it did not come to Baltimore. How could more of the western trade be brought to Baltimore? A new invention helped to do this and this lesson is about this new technology.

Lesson Development

In this lesson, students will use the Web pages and pictures to complete a worksheet which contains nine activities. Information about the activities is listed below. The numbers relate to the number on the worksheet.

1. Read the song written for the day the cornerstone for the railroad was laid and identify changes to the environment as a result of building the railroad.
2. Compare the two charts, "Chesapeake and Ohio Canal" and "Baltimore and Ohio Railroad." Trace the routes of the canal and the railroad.
3. Use information from the charts to explain who won the race.
4. Explain why mills were built along the rivers and why there was a need for a better transportation system.
5. Define resources and natural resources:
resources - factors of production natural resources - the many things nature provides that we use to satisfy our wants.
6. Define import, export, and workers if needed:
 - Import - To bring or carry in from an outside source, especially to bring in (goods or materials) from a foreign country for trade or sale.
 - Export - To send or transport a commodity abroad, especially for trade or sale.
 - Workers - Those people employed to do specific tasks in the enterprise.
7. Review the definitions of physical and human characteristics:
 - physical characteristics - describe the natural environment of the place. Physical or natural characteristics may be related to climate (e.g., polar), vegetation (e.g., rainforest), soil (e.g., prairie), landform (e.g., mountains), and water (e.g., bay).
 - human characteristics - describe the peoples of the place (past or present), their religions, languages, settlement patterns, economic activities, political systems and their modifications to the environment.

8. Use the CSX Web site (<http://www.csxt.com>) to answer the questions to learn more about CSX. .
9. Use the Sealand Web site (<http://sealand.com>) to identify the content of containers
- 10..Use the Western Maryland Railroad Web site (<http://www.wmsr.com>) to read and become informed and to identify the Appalachian Mountain region of Maryland.

Thoughtful Application

After students have completed the worksheet and you have discussed answers with them, give students a copy of the assessment. Read the directions to them. Explain the scoring tool to the students. After you have scored the assessment, send some of the assessment pictures with a score of three to the staff of *Pride II* by snail or e-mail. You may also post your students' work on a school Web page and inform the staff of *Pride II*. Even though the *Pride of Baltimore II* can only visit ports located in the Coastal Plain, the staff is very interested in communicating with fourth graders throughout the state. Be sure to let the *Pride II* staff hear from your school.

You may also want to make a bulletin board to display your students' works. Take a picture of the bulletin board and send it to the *Pride of Baltimore II*. The *Pride's* staff want to see students' work.

Scoring Tool

Rubric: The students will receive...

3 Points if:

1. The picture includes two physical and two human characteristics which represent the place where the pictures could have been taken.
2. Two facts are included which explain how the people of this region depend on its physical characteristics, and two facts are included which explain how people modified the environment over time.

Possible responses:

Picture includes: mountain, hill, valley, stream, waterfall, lake, buildings, bridges, factories, roads, cities, towns

Facts include:

- a. hilly land used for farming, construction, roads, recreation, etc.
- b. mountains for natural resources: coal, trees, animals
- c. cities and towns built as places for people to live and work
- d. land was modified to build homes, stores, roads, farms, colleges, bridges, etc. to help the people meet their wants.

2 Points if:

11. The picture includes one physical and two human characteristics or two physical and one human characteristic which represent the region where the pictures have been taken.
12. Two facts are included which explain how the people of this place depend on its physical environment, and one fact is included which explains how people modified the environment over time or vice versa.

1 Point if:

- The picture includes one physical and one human characteristic which represent the region where the pictures have been taken.
- One fact is included which explains how the people of this place depend on its physical environment, and one fact is included which explains how people modified the environment over time.

Lesson Extensions

CSXT has a direct connection to the first railroad, the B&O. Make a timeline to see the connection.

Other Resources

Wheeler Leaflets on Maryland History, Maryland Historical Society, 201 W. Monument St., Baltimore, MD – Leaflet 9 and 13.

My Maryland by Beta Kaessmann, Harold Randall Manakee and Joseph L. Wheeler, (Maryland Historical Society, Baltimore, MD, 1955)

Answer Keys to the All Aboard Worksheet:

1. Use the song written for about the railroad to explain how the railroad caused people to modify the environment.

(People modified the land by clearing the land, digging tunnels through mountains, laying rails, and building bridges.)

2. Map Questions

3. Who Wins the Race?

4. Why was Ellicott's Mills a good location for a railroad station?

(The location of Ellicott's Mills was good because three important transportation corridors met there: the railroad, the old National Road, and the Patapsco River. It was a mill town and on a route which led to the western part of the state.)

5. Identify five natural resources which were shipped into the Port of Baltimore and identify the continents from which they came.

(Tin – South America, coffee – South America, sugar, North America, cork – Europe, petroleum – North America, rubber – Asia, copra – Asia)

6. Identify the natural resource in this picture and explain if it is being imported or exported and explain your answer.
- Natural Resource - (*Bananas*) Imported or Exported - (Imported)
 - Explain your answer: (Bananas are imported. The climate here is too cool for growing bananas. Bananas grow in Central and South America.)
 - Many people doing many different jobs are required to produce this natural resource. Name five different workers and describe their jobs.
 - bananero – cares for banana plants cares for banana plants,*
 - cortero – cuts the fruit cuts the fruit,*
 - juntero – gathers the fruit gathers the fruit,*
 - driver – transports the fruit from the plantations transports the fruit from the plantations,*
 - washer – cleans the fruit cleans the fruit, weigher – weighs the bunches weighs the bunches,*
 - packer – wraps fruit and packs it for market wraps fruit and packs it for market,*
 - loader – puts the fruit into boxcars puts the fruit into boxcars,*
 - engineer – takes the boxcars of fruit to the seaport to be shipped takes the boxcars of fruit to the seaport to be shipped,*
 - longshoreman – loads and unloads the ship loads and unloads the ship,*
 - inspector – checks the temperature of the fruit checks the temperature of the takes the bananas on the ship to foreign ports,*
 - pilot – guides the ship into the foreign port guides the ship into the foreign port,*
 - truck driver – drives the bananas to the warehouse drives the bananas to the warehouse,*
 - forklift operator – lifts the boxes of bananas lifts the boxes of bananas,*
 - wholesale grocer – buys the bananas to sell to the retail grocers buys the bananas to sell to the retail grocers,*
 - grocer – buys the bananas to sell to the public*

7. Stations/Stops

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|--------------------------------------------------------------|-----------------------------------------------|
| <i>(Evergreen – natural resource</i> | <i>Homeland – human characteristic</i> |
| <i>Woodbrook – physical characteristic</i> | <i>Maryland School – human characteristic</i> |
| <i>Notch Cliff – physical characteristic</i> | <i>Laurel Brook – physical characteristic</i> |
| <i>Fallston – physical characteristic</i> | <i>Vale - physical characteristic</i> |
| <i>Forest Hill - physical characteristic</i> | <i>Fern Cliff - physical characteristic</i> |
| <i>Rocks – natural resource</i> | <i>Minefield – human characteristic</i> |
| <i>Street – human characteristic</i> | <i>Delta - physical characteristic</i> |
| <i>Castle Fin – human characteristic</i> | <i>Bridegton – human characteristic</i> |
| <i>Muddy Creek Forks - physical characteristic</i> | |
| <i>Springvale - physical characteristic</i> | <i>Dallastown – human characteristic</i> |
| <i>Ore Valley - physical characteristic/natural resource</i> | |

Paper Mill – human characteristic

Plank Road – human characteristic)

8. CSX Questions

- a. How many people in Maryland are employed by the CSX? (*Approximately 1,899*)
- b. How much money does CSX spend on its payroll? (*Approximately \$76 million annually*)
- c. In Maryland, where are the CSX service lane and business unit located? (*Service lane is headquartered in Baltimore and the business lane is headquartered in Cumberland*)
- d. In Maryland, where are the hump yard, freight yards and coal and ore piers located? (*Hump yard – Cumberland, freight yards – Baltimore, Brunswick, and Hagerstown, and coal and ore piers – Baltimore*)
- e. Where are railroad cars repaired? (*Baltimore, Brunswick, Cumberland and Jessup*)
- f. Where are CSXT public warehouses located? (*Baltimore and Jessup*)
- g. Where are the distribution centers located? (*Baltimore and Jessup*)
- h. What major port in Maryland does CSX serve? (*Baltimore*)
- i. Complete the legend by adding the commodities for the CSXT map and add three other elements to the map. (*Title, orientation, date, border, author*)

9. Sea-Land Service, Inc. is a worldwide leader in container-shipping. Visit the Sea-Land Service Web site (<http://www.sealand.com>) to answer the following questions and find out what is in the containers and where does it go.

- a. How many containers does Sea-Land Service, Inc. own? (*220,000*)
- b. How many ports does it service? (*120*)
- c. How many countries and territories have Sea-Land terminals? (*80*)
- d. Where does Sea-Land own the most technologically advanced terminal in the world? (*Rotterdam, Netherlands*)
- e. Where is the world's largest cargo distribution center and container freight station located? (*Hong Kong, Asia Terminal LTD*)
- f. Where in the U.S. are Sea-Land's largest and best designed facilities located? (*Elizabeth, New Jersey, and Tacoma, Washington*)
- g. What is in some of the containers? (*wine, beer, salmon pharmaceuticals, Japanese electronics and automobiles, livestock*)
- h. How is Sea-Land Service, Inc. an example of interdependence? (*Businesses depend on many people for goods and services that satisfy our wants. We do not produce the food, clothing and other goods and services we want. Most producers are dependent on others for resources they need to produce goods and services. Sea-Land Services, Inc. specialize in container shipping and as a result depend upon goods and services and other transportation systems of ships, railroads, barge lines and trucking operations to provide their containerized service around the world.*)

10. Explain how “Mountain Thunder” got its name.

(This restored early 20th century steam engine and passenger cars travels between Cumberland and Frostburg, Maryland. The trip covers a 1,300-foot change in elevations because of the mountain thereby getting the nickname “Mountain Thunder.”)