



Hot Commodities

GRADE LEVEL: 5 - 8

TIME: 50 MIN

SUMMARY

In this lesson, students will learn about everyday items that are top imports at the Port of Baltimore and how the international trade of these items help to habitat.

OBJECTIVES

1. Students will be able to identify commodities that pass through the Port of Baltimore.

VOCABULARY

- **Draft**- The vertical distance between the water surface and the bottom of the ship.
- **Dredging** - The process of removing sediment from shipping channels.
- **Dredged Material** - The sediment removed from the shipping channels.
- **Cargo** - Goods carried on a ship, aircraft, or motor vehicle.
- **Cargo Ship** - A ship that transports goods and materials from one port to another.
- **Container Ship** - A ship specially designed or equipped for carrying containerized cargo.
- **RORO** - Roll-on, roll-off ships are vessels designed to carry wheeled cargo that are driven on and off the ship on their own wheels.
- **TEU** - Stands for Twenty-Foot Equivalent Unit which can be used to measure a ship's cargo carrying capacity.
- **Transportation** - The action of moving someone or something from one location to another.
- **Shipping Channels** - Areas in the water that are maintained to a depth that can accommodate cargo ships. They are marked by buoys and identified on nautical charts (so captains know where to travel).

- **Shipping Logistics** - Planning, implementing and controlling the efficient flow (forward and backward) and storage of goods, services and related information between the point of origin and the point of consumption (customer).

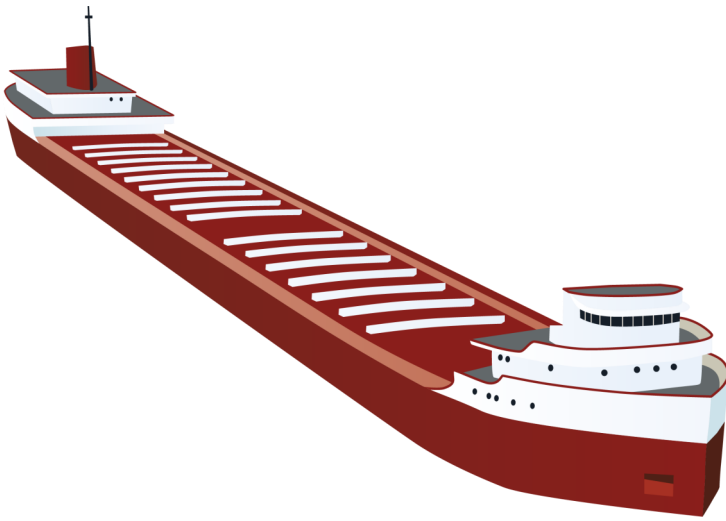
MATERIALS

- Code one set of items with a red dot and another with a blue dot to determine which team wins.
- Toy car and toy tractor (representing Japanese commodities)
- Toy chair and piece of plywood (representing Chinese commodities)
- Salt (representing Chilean commodities)
- Kleenex and coffee bag (representing Brazilian commodities)
- Steel items (representing United Kingdom commodities)
- 5 containers for countries
- 2 containers to hold commodities at start line

BACKGROUND

The Port of Baltimore is ranked in the top ten largest ports in the United States of America. Each year, more than 2,000 cargo vessels and cruise ships enter and leave the POB, moving over 40 million tons of cargo and generating more than \$2 billion in revenue. Asia is the POB's largest market. Approximately 19 million tons of cargo was exported to Asia in 2018, consisting of mostly raw materials such as coal, lumber, and waste paper. Countries importing coal from the POB include India, Japan, and South Korea. The largest imports from Asia to the POB include consumer goods such as furniture, construction equipment, and automobiles. Europe continues to be the POB's largest trading partner. Imports and exports to and from Europe tend to be balanced. POB imports aluminum from the Middle East and exports automobiles. The POB exports previously owned vehicles to Africa and imports new BMW automobiles. Salt, tissue-making pulp, coffee, sugar, and automobiles are imported from both Central America and South America. The POB is the top ranked

automobile port in the United States. It is also the top ranked port for roll on/roll off (RO/RO) cargo imports in the United States, which includes construction and agriculture machinery.



ACTIVITY

1. Engage/Elicit (10 min):

Review with students that the Port of Baltimore (POB) shipping channels are dredged for cargo ships to deliver goods to the POB. The Port needs Dredged Material Containment Facilities (DMCF) to stay competitive. Review the need for mitigation and make specific examples of the site you are focusing on (see background for more information). If you are on-site, connect the idea to your location. If you are in a classroom, select a site and use photos to illustrate the appearance of a DMCF and examples of mitigation projects.

Play the following flash card logo games:

Cargo Logos: The cargo ships are carrying many goods that we know and or use every day.

Play flashcard game to identify common logos (use only the brand cards).

Baltimore Wildlife: After students identify logos, reiterate that the plants and animals they see in the habitat around them wouldn't be at the mitigation site they are learning about if it weren't for those goods being shipping through the POB.

Have students try to identify the wildlife cards (Use only the animal and plant ones).

These species are all symbols of Maryland.

Conclusion: The brands and goods that we use every day help to create habitat for the "logos" or symbols of Maryland. Some of these species live at the mitigation site they are learning about.

2. Explore (20 min):

Explain to the students that they will be competing in "The Hot Commodity Race" to learn what types of cargo or commodities are imported and exported through the POB.

- Set a starting line with two containers filled with commodities.
- Place 5 containers labeled China (6,000 mi), Japan (5,900 mi), Chile (4,100 mi), Brazil (3,100 mi), and United Kingdom (3,000 mi) to their according distances away from Baltimore. (China the furthest from the starting line).
- Behind the starting line, have students line up in two lines (2 teams, red and blue) next to a container filled with commodities (one container for each group).
- Explain the goal of the game. Each team member at the front of the line will continue this relay race until all commodities are sorted by country of origin. Pick up a commodity and race down to the containers, placing the commodity in the container labeled with its country of origin.
- The next person in line must wait until the first person crosses the starting line on their return trip.
- When both teams have finished, pull the items out of the containers and see if the teams were correct.
- If they aren't correct tell the participants that some are wrong and give them a chance to correct their choices.
- The first team to accurately complete the race wins.

3. **Explain (10 min):**

Ask students what they learned about commodities in the Port of Baltimore. Explain that Baltimore is a desirable location for commodities because it is further inland than other ports, this minimizing travel costs to get goods to the center of the United States.

4. **Evaluate/Wrap-Up (10):**

Discuss the commodities that are shipped through the POB using the table below.

1. What surprised students the most? (Furniture from china?)
2. What imports have the longest trip?
3. What imports have the shortest trip?
4. Name one import and how it affects your daily life.

DIVE DEEPER

For older groups focus on the economics impacts of having a port in your city. Discuss the following:

1. How do ports make money?
2. How do ports affect international trade?