

# A Yen to Trade

## Lesson 9: The Road to Riches

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### Standards and Benchmarks (see page 9.10)

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### Lesson Description

Students move a tennis ball around the room, learning that the way people move themselves and things around determines the location of trade routes. They also see how changes in the way people and goods are transported changes trade routes and even trading partners.

NOTE: The activity in the lesson is most effective if students are spread around a room where there are the following: obstacles or space for inserting obstacles such as tables; slopes in the floor; or even different levels (such as steps or a stage). Because this may be challenging, the activity could be done outdoors on the playground. It might be useful to enlist the help of the physical education teacher. Students could stand or sit in various areas of the playground such as the top of a slide, on a set of steps, or along a sloped sidewalk. The obstacles are intended to represent natural geographical barriers such as mountain ranges, thick forests, and deserts.

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### Grade Level

6-8

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### Concepts

Barter  
Technology  
Trade  
Trade routes

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## Objectives

Students will be able to

- define barter, technology, trade, and trade routes;
- explain that the way in which people and goods can be moved determines trade routes; and
- describe why improvements in transportation technology lead to increased amounts of trade.

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## Compelling Question

How has transportation technology improved trade?

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## Time Required

45-60 minutes

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## Materials

- Visual 9-1, one copy for each teacher to record the number of trades (Optional: Use a document camera to display Visual 9-1 as the teacher records trades)
- Handout 9-1, one copy for each student
- Tennis ball
- Two plastic butter/margarine tubs or small plastic bowls
- A 12" ruler
- Link to Explore Economics Video Series, Episode 2: "The Economics of Transportation" (90-second video); <https://www.stlouisfed.org/education/exploring-economics-video-series/episode-2-the-economics-of-transportation>

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## Procedure

1. Explain that as an introduction to this activity, students will view a video—"The Economics of Transportation"; <https://www.stlouisfed.org/education/exploring-economics-video-series/episode-2-the-economics-of-transportation>.
2. Explain that transportation is a form of **technology**—the application of knowledge to the production of goods and services. When people produce new ways to transport goods and services, they are applying transportation technology.

3. Explain that **trade** is the exchange of resources, goods, or services for other resources, goods, or services, or for money. When people engage in trade, they are trading. When people trade goods and services without using money it is called **barter**. Discuss the following:
  - What are some examples of transportation technology you saw in the video? (*Answers may include airplanes, feet, animals, carts, wagons, boats, ships, trains, cars, trucks, and drones.*)
  - What are some examples of trades you have made? (*Answers will vary but may include traded sandwiches with a friend at lunch or paid to play a video game at an arcade.*)
  - Ask a student to explain why he or she was willing to trade. (*Answer may include wanted the friend's sandwich more than the sandwich brought from home or wanted to play the video game more than he or she wanted the money or something else that could be purchased with the money.*)
  
4. Explain that people trade because they expect to be happier or more satisfied after the trade. In fact, people are only willing to trade if they expect to get more from the trade than what they give up. Because this is true for all traders, both sides involved in a trade expect to be better off after the trade—trade is a good thing. Unfortunately, people may not be physically close to each other, so trading may be difficult.
  
5. Tell the students that they will participate in a trading activity. Each student will have an opportunity to trade with others in the class. To complete a trade, a student must get a tennis ball to a classmate. The goal is to complete as many trades as possible. Work through the following:
  - Select 3 or 4 students to act as traders and bring them to the front of the room. Explain that they may trade with any classmate, but they are allowed to only move the tennis ball in a specific manner. Have each trader start on the same spot. Have the other students stand near their desks.
  - Demonstrate the method of trading by placing two plastic bowls next to and touching one another at your feet. Place the tennis ball in the dish closest to you. Pick the ball up and move it to the second dish. Then move the first dish to the other side of the second dish. The two dishes must still touch. Now move the ball to the empty dish. Move the newly emptied dish to the other side of the dish with the ball in it.
  - Explain that a student trader should continue moving the ball in this manner until he or she reaches the feet of a classmate. This is a completed trade. The student may continue toward other classmates, making trades until the given time expires. Optional: select a student to be the timer.
  - Place the tubs and ball at the feet of one trader. Allow this trader one minute to move the ball.

6. At the end of one minute, display a copy of *Visual 9-1: Transporting the Tennis Ball* and record the number of trades made and the names of the students with whom trades were completed. Also, discuss the route(s) taken at the end of each round. NOTE: If this activity is taking place outside of the classroom, record the information on a paper copy of Visual 9-1 and display it for discussion later.
7. Repeat step 5 with the other traders. They may use the same route(s) taken by earlier traders or other routes. Then, work through the following:
  - Bring 3 or 4 new traders to the front of the room. Explain that this time the tennis ball may be moved only by pushing it along the floor with the ruler. Make sure each trader starts at the same spot. When the trader reaches a classmate, the trade is complete. The trader may then continue toward other classmates, making trades until time expires.
  - Give each trader one minute to trade and then record the number of trades and names of students with whom trades were completed, and then discuss routes taken after all traders in the round have gone.
  - Now bring 3 or 4 new traders to the front of the room. Tell them that this time the tennis ball may be moved only by tossing it (gently) underhand to other students. The receiving student must toss the ball back to the trader to complete the trade. The trader continues trading by tossing the ball to another student, and so on. Allow students to toss the ball for one minute while counting each catch. Record each catch as a completed trade. If time allows, continue until every student has had a chance to be a trader.
8. After the final trader completes his or her turn, explain that **trade routes** are the paths traders use to reach the people with whom they are trading or to send the goods and resources they are trading. Examples of trade routes include jungle pathways, caravan routes, waterways (rivers, lakes, oceans), roads/interstate highways, airways (flight paths of airplanes), and so on. Refer to Visual 9-1 and discuss the following:
  - How did the trade routes differ each round? (*Answers will vary. Routes will get longer each round.*)
  - Why were the particular trade routes chosen by classmates? (*They most likely went to those students who were the easiest [least-costly in terms of time] to get to; those students who were the closest; or those who could be reached without going around too many obstacles.*)
9. Remind the students that technology is the application of knowledge to the production of goods and services. Every method or way in which something is done uses some type of technology. In the activity, the tennis ball was moved in three different ways. Each of these is a different “moving” or transportation technology. Discuss the following:
  - What was the technology used to move the ball in each trading round? (*Moving from bowl to bowl, pushing, tossing*)

- What happened to the number of trades as the technology changed (improved)? (*Traders were able to make more trades because they could reach more people in the same amount of time.*)
  - How did the trade routes change as a result of the change in technology? (*In each successive round, new trade routes brought trade to people who weren't reached before. Trade was more direct [shorter routes].*)
10. Tell the students that in the real world, as the technology of moving people and things around has improved, trade routes have changed and the amount of trading activity has increased. Explain the following:
- At first, the only way of getting around was by foot, animal, or small boat. (In the trading activity, this was represented by the “step-by-step” movement of the tennis ball in the tubs.) Trade routes were waterways and easy-to-travel paths (not over mountain tops or across deserts).
  - When engines were developed for locomotion, roads and railways became the new trade routes. (In the trading activity, this was represented by pushing the tennis ball along.) This made it possible to reach more people more easily and to move larger quantities of goods at one time.
  - When flight became possible, airways became the new trade routes. This eliminated many of the geographical barriers found on land and water routes. (In the trading activity, this was represented by tossing the tennis ball. It was possible to toss the ball over obstacles, such as desks or steps.)

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## Closure

11. Review the following to emphasize the major points of the lesson:
- What is trade? (*Trade is the exchange of resources, goods, or services for other resources goods, or services, or for money.*)
  - What are trade routes? (*Trade routes are the paths on land, on water, or through the air that people use to reach those with whom they are trading or to send the goods and resources they are trading.*)
  - Why would one route be chosen over another? (*It is shorter, or it takes less time to travel because there are fewer obstacles. Traders are going to use the least-costly route they can find given the geography and the nature of the transport technology.*)
  - What is technology? (*Technology is the application of knowledge to the production of goods and services.*)
  - When talking about transportation of goods and services, what does technology mean? (*In this case, technology is the way in which goods and resources are transported.*)
  - Give some examples of transportation technologies. (*People carrying goods; animals carrying goods; boats, ships, cars, trucks, railroads, or planes transporting goods*)

- Why are new technologies developed? (*People are always looking for a better, cheaper way of doing things.*)
  - How has transportation technology affected trade? (*It has made it faster and easier to move goods and services, making trade easier.*)
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## Assessment

12. Distribute a copy of *Handout 9-1: Assessment* to each student. Allow time for the students to work and then review the answers as follows:

### Multiple Choice

1. Which of the following are the oldest trade routes?
  - a. Railways and highways
  - b. Highways and airways
  - c. *Pathways and waterways*
  - d. Routes to other planets
2. As the technology of transportation improves,
  - a. *more trades occur.*
  - b. trade routes stay the same.
  - c. trade routes become more difficult.
  - d. trade becomes more expensive.
3. Which of the following is a trade route?
  - a. The road from where you live to the nearest mall
  - b. The highway from your city to New York City
  - c. The flight path an airplane would take from New York City to London
  - d. *All of the above*

### Short Answer

4. How has transportation technology changed the way we trade?  
*New technology allows us to move goods and services more easily and more quickly. This has made trade easier.*
5. As travel to other planets becomes possible, how are trade routes likely to develop, and what will be the consequences for trade?

*Much like the world's first trade routes, which needed to go in such a way that water and food supplies could be replenished, interstellar travel may need to pass by planets where it is possible to replenish basic supplies, including energy. The direction of the trade route would also be toward the nearest habitable planets where trade would be possible. Because trade is desirable to all traders, trade will increase if other planets become successful.*

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## Extension

13. Have students investigate a particular trade route or routes at a particular time in history. The following are some examples:

- Silk Road of Central Asia
- Ocean routes to the Americas in the 1700s
- Erie Canal
- Interstate highway systems in the United States
- Railway system of any European country
- Route map of a major airline
- Road map of a city or state
- Oregon Trail of the 1800s
- Transcontinental railroad (such as Canadian, Trans-Siberian, first U.S.)
- Panama Canal
- Paths/roads of the Mayans, Incas, Aztecs, or a Native American tribe

Have students answer the following questions about the trade route they select:

- Who was involved in the trade?
- What kinds of goods were traded?
- What geographical obstacles did the route have to pass through or around?
- Is the route still used today?







## Standards and Benchmarks

### National Content Standards in Economics

#### Standard 15: Economic Growth

Investment in factories, machinery, new technology, and in the health, education, and training of people stimulates economic growth and can raise future standards of living.

- **Benchmarks: Grade 8**

3. Technological change results from an advance in knowledge leading to new and improved goods and services and better ways of producing them.
4. Increases in productivity can result from advances in technology or increases in physical or human capital.