

LESSON DESCRIPTION

Working in groups that represent countries, students randomly draw cards from boxes labeled natural resources, human resources, and capital goods. The groups use their available resources to provide for their citizens by satisfying their wants for food, clothing, housing, medical care, education, and entertainment for one year. The task is complicated when some countries learn that their resources are inadequate to produce as much as they had originally planned. No one country is able to satisfy all wants, so it must make choices. Students generate ways countries might deal with their scarcity problems.

ECONOMIC CONCEPTS

Natural resources
Capital goods (capital resources)
Human resources
Scarcity
Opportunity cost

OBJECTIVES – Students will:

- Define natural resources, human resources, capital goods, scarcity, and opportunity cost.
- Describe how the quantity and quality of productive resources vary among countries.
- Explain how scarcity of productive resources affects the amount of goods and services a country can produce.
- List ways a country might deal with the problem of scarce resources.

TIME REQUIRED

One to two class periods

MATERIALS

- Three shoeboxes labeled natural resources, human resources, and capital goods
- One copy of Activity 1.1, resource cards cut apart, placed in appropriate shoeboxes
- One copy of Activity 1.2 for each group
- Transparency of Activity 1.2
- Transparency of Visual 1.1
- One copy of Activity 1.3 for each student

PROCEDURE

1. Explain that in every country people must produce goods and services to survive. Productive resources are used to produce these goods and services. Define **productive resources** as the

- natural resources, human resources, and capital goods available to make goods and services.
2. Tell students that **natural resources** are gifts of nature—things found in or on the earth. Ask for examples of natural resources. (*Answers might include rivers, minerals, animals, or plants.*)
 3. Define **human resources** as the amount and quality of human effort used to produce goods and services. Ask students for examples of human resources. (*Answers might include teacher, mechanic, doctor, or truck driver.*)
 4. Point out that human resources have skills, talents, and education; that is, they have **human capital**. Ask for examples of students' human capital. (*Answers might include computer, reading, writing, and math skills; talents in music, sports, or acting; ability to follow directions, serve as a group leader, and cooperate with group members.*)
 5. Explain that **capital goods** are goods produced and used to make other goods and services. These include tools, equipment, and buildings. Point out that sometimes capital goods are called capital resources. Ask for examples of capital goods that are used in the classroom or school. (*Answers might include desks, books, school building, chairs, and computers.*)
 6. Inform students that they will work in groups. Each group will represent a country. Divide students into groups of three. Give each group a copy of Activity 1.2. Have each group name its country and record the name on Activity 1.2.
 7. Display the three productive resource boxes. Have a representative from each country draw a card from each box — natural resources, human resources, and capital goods.
 8. Tell the groups to record the amount of each type of resource their country has in the spaces provided on Activity 1.2. Explain that the three drawn cards represent all the productive resources available for each country to use in the production of goods and services.
 9. Inform students that they must use these resource amounts to produce food, clothing, housing, education, medical care, and entertainment for the citizens of their country. Each country has a population consisting of ten families.
 10. Display a visual of Activity 1.2. Point out how many natural resources, human resources, and capital goods are needed to produce each of the goods and services necessary to survive. For example, food for one family requires: 10 natural resources,

10 human resources, and 10 capital goods. Food for ten families would require 100 units of each resource.

11. Tell students to decide how many units of food, clothing, housing, medical care, education, and entertainment they will provide and the number of natural resources, human resources, and capital goods used to produce each.
12. After each group has decided how to allocate its country's resources, draw the group's attention to its resource cards. Point out that some cards have a star. This indicates that the resources are of poor quality or not easily accessible. Countries with resource cards that have a star must reduce the amount of that resource by 25 units. For example, if a country has 450 units of human resources, it now has 425 units.
13. Allow students time to rearrange their allocation of resources to meet their wants of food, clothing, housing, education, medical care, and entertainment.
14. Have each country state its name and report how many of each type of resource it has. Record their responses on Visual 1.1. Discuss the following.
 - a. Which countries are rich in natural resources? (*Answers will vary.*) Human resources? (*Answers will vary.*) Capital goods? (*Answers will vary.*)
 - b. Are some countries richer in all three types of resources? (*Yes.*) Which ones? (*Answers will vary.*) What does a higher number of resources mean for families in these countries? (*Families are able to satisfy more wants.*)
 - c. Are families in some countries able to satisfy most of their wants? (*Yes.*) Explain why. (*Some countries have more resources and resources of better quality than others.*)
 - d. Are there countries in which families are able to satisfy only a few of their wants? (*Yes.*) Explain why. (*These countries have few resources, resources of poor quality, or resources that are not easy to access.*)
15. Point out that in this activity the amount of productive resources available varies greatly from country to country. Tell students that this holds true for countries around the world. Some countries, such as Russia, are rich in natural resources; some countries, such as the USA, have superior capital goods; and some countries, such as India, have large numbers of human resources with excellent skills and knowledge.
16. Are people in any country able to satisfy all their wants? (*No.*) Why not? (*There aren't enough productive resources to satisfy all wants of the citizens for one year.*)

17. Tell students that this problem of not having enough resources to satisfy all wants is called **scarcity**. It is a problem that exists for individuals, businesses, and countries and can never be eliminated.
18. Ask how people in each country dealt with the scarcity of resources. (*People in each country had to make decisions about how many units of food, clothing, housing, education, medical care, and entertainment to produce. Some may have decided not to satisfy some wants. Some probably produced enough for some families and not enough for others. Some may produce enough for all families but not enough for the entire year.*)
19. Explain that every decision involves an opportunity cost. Define **opportunity cost** as the value of the best alternative given up. For example, students usually spend one hour after school doing homework and one hour with friends. If students need to study for a test, they may give up time with their friends. Their opportunity cost is time with friends. In the case of the countries, the opportunity cost is the next best choice of how to use resources.
20. Ask students what their opportunity costs were for the decisions they made to allocate their productive resources. (*Answers will vary. One example might be some medical care given up in order to produce more food. The opportunity cost of producing more food would be some medical care.*)
21. Which countries had resource cards with stars? (*Answers will vary.*) How did the reduction in resources affect the ability of people in the country to meet their wants? (*They were able to satisfy even fewer wants than they originally had planned.*)
22. What might cause a reduction in the availability of quality of each type of resource? (*human resources – fewer people able to work, workers with poor skills, and lack of knowledge or capital goods; natural resources – located in places that are too costly to access or lack of capital goods to harvest the natural resources; capital goods – lack of technology and modern tools, machines, and other equipment*)
23. Tell students that people must decide how to deal with scarcity because it can never be eliminated. Ask how people in a country might satisfy more wants. (*find ways to increase the amount of goods and services produced using existing resources; produce what they can and trade for what they don't have*)

24. Point out that, in fact, people try to find ways to produce more goods and services of better quality with the given resources. They specialize and produce those things they can produce best. Then they trade resources, goods, and services that they have for those that they don't.

CLOSURE

Review the key points of the lesson using the following discussion questions.

1. What are productive resources? (*the natural resources, human resources, and capital goods available to make goods and services*)
2. What are natural resources? (*gifts of nature, things found on or in the earth*) Give an example of a natural resource. (*Answers will vary but might include minerals, trees, soil, and animals.*)
3. What are human resources? (*the quantity and quality of human effort used to produce goods and services*) Give an example of a human resource. (*Answers will vary but will include examples of various workers.*)
4. What is human capital? (*the skills, talents, education, and abilities that human resources possess*) Give an example of human capital. (*computer, reading, writing, and math skills; talents in music, sports, or acting; ability to follow directions, serve as a group leader, and cooperate with group members*)
5. What are capital goods? (*goods produced and used to make other goods and services*) Give an example of a capital good. (*Answers will vary but might include examples of various types of tools, factories, and machines.*)
6. Why is it difficult for people in a country to produce enough goods and services to satisfy all their wants? (*No country has enough productive resources; resources are scarce.*)
7. What does scarcity mean? (*Scarcity is the condition of not being able to have all the goods and services wanted. This is true for individuals, governments, societies, and countries.*)
8. Why does scarcity exist? (*Human wants for goods and services exceed the quantity of goods and services that can be produced using all available resources.*)
9. How does the scarcity of resources affect countries? (*They are unable to produce enough goods and services to satisfy all their citizens' wants such as food, clothing, housing, education, recreation, and medical care.*)

10. Why is there a wide range in the number of wants different countries can satisfy? (*Their resources vary greatly in amounts and quality.*)
11. How do the quantity and quality of a country's resources affect the quality of life of its citizens? (*Citizens in countries with poor resource endowments may have higher death rates, less educated population, high poverty rates, problems with hunger.*)
12. How might countries attempt to increase the number of goods and services they produce for their citizens? (*find ways to increase the amount produced given their existing resources; specialize in producing some goods and then trade for goods, services, and resources they do not have*)

ASSESSMENT

Distribute a copy of Activity 1.3 to each student. Instruct students to read the information about Countries A and B and complete the task.

EXTENSION

Teach "What, How, and For Whom to Produce?" from *Roosters to Robots: Lesson Plans from Writers around the World*," National Council on Economic Education.

★ 460 natural	★ 460 human	★ 460 capital
450 natural	★ 450 human	450 capital
★ 430 natural	430 human	★ 430 capital
400 natural	★ 400 human	400 capital
380 natural	380 human	★ 380 capital
380 natural	380 human	★ 380 capital
380 natural	380 human	380 capital
360 natural	360 human	360 capital
330 natural	330 human	330 capital

Country Name _____

Record the number of each type of resource your country has in the chart below.

NATURAL	HUMAN	CAPITAL

Resources Needed to Produce Each Good or Service
Per Family for One Year
(There are ten families in your country.)

Good or Service	Natural Resources	Human Resources	Capital Goods
Food	10	10	10
Clothing	10	10	10
Housing	10	10	10
Medical Care	5	5	5
Education	5	5	5
Entertainment	5	5	5

Country Decision on Number of Goods and Services to Provide

Good or Service	Number Produced	Natural Resources Needed	Human Resources Needed	Capital Goods Needed
Food				
Clothing				
Housing				
Medical Care				
Education				
Entertainment				

Country Name	Natural Resources	Human Resources	Capital Resources