

# **PYRAMIDS IN PRODUCTION**

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## **LESSON DESCRIPTION**

The Egyptians built pyramids for their rulers with four sloping outside walls shaped like triangles. These structures were tombs and could take twenty or more years to build. Workers used sleds, wooden rollers, and levers to move heavy stones of about 5,000 pounds. The fine stones for the outside walls of the pyramids came from as far away as Nubia and were loaded on barges and carried along the Nile River. In this lesson, students analyze the use of human resources, capital goods (capital resources), and natural resources in the pyramid construction.

## **AGE LEVEL**

9-13 years old

## **CONCEPTS**

Productive resources  
Human resources  
Natural resources  
Capital goods (capital resources)

## **CONTENT STANDARD**

Productive resources are limited. Therefore, people cannot have all the goods and services they want; as a result, they must choose some things and give up others.

## **BENCHMARKS**

Productive resources are the natural resources, human resources, and capital goods available to make goods and services.

Natural resources, such as land, are “gifts of nature;” they are present without human intervention.

Human resources are the quantity and quality of human effort directed toward producing goods and services.

Capital goods are goods produced and used to make other goods and services.

## **OBJECTIVES**

- ◆ Students will categorize natural, human, and capital goods (capital resources).
- ◆ Students will analyze productive resources used in producing a product.

## **TIME REQUIRED**

One to two class periods

## **MATERIALS**

- One copy of Activity 1 for each group, cut apart
- One envelope for each group, containing cards for Activity 1
- Transparencies of Visuals 1, 2, and 3
- One copy of Activity 2 for each group

## **PROCEDURE**

1. Divide the class into groups of 4-5 students. Give each group an envelope containing the cards from Activity 1.
2. Tell the groups to place the cards into three categories. All cards in the category must be similar, and groups should be prepared to explain how they are similar. Allow five minutes to complete the activity.
3. Have each group report how it categorized the cards and the similarity within each category. As a class, discuss the best method of categorization.
4. Explain that **productive resources** are things used to make goods and services. All cards in the envelope are examples of productive resources.
5. Display Visual 1 and explain that there are three categories of productive resources.

## LESSON TWO

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Write the name of the category (i.e., natural resources, human resources, and capital goods) next to the definition during discussion.

6. Discuss the following.
  - A. Which cards show examples of natural resources? (*crude oil, trees, land, water, stones, coal*)
  - B. Which cards show examples of human resources? (*maid, factory worker, librarian, bus driver, teacher, engineer*)
  - C. Which cards show examples of capital goods (capital resources)? (*school, books, VCR, trash truck, classroom desks, knife*)

7. Have groups rearrange the cards, if needed, so each category contains only the human resources, natural resources, or capital goods (capital resources).

8. Explain that the ancient Egyptians built pyramids for a ruler's afterlife. These pyramids were constructed beginning around 2600 BC (BCE). To Egyptians, life after death was more important than life on earth, so workers spent at least twenty years to build a pyramid for one ruler. The Egyptians used productive resources to build these pyramids.

9. Have students read a textbook or other account of the building of pyramids. The British Museum has a good web site at <http://www.ancientegypt.co.uk/pyramids>. Tell students to read about the construction and make a list of the productive resources used to build the pyramids.

10. When students have completed their work, display Visual 2. Have groups compare their lists of productive resources to the list on the visual. Each group should add any it missed.

11. Discuss other human resources, capital goods, and natural resources Egyptians might have used that are not listed. Add to Visual 2.

(*plaster, paint, and artists for interior paintings; ropes, water carriers*)

12. Give each student a copy of Activity 2. Tell the groups to categorize their lists into human resources, natural resources, and capital goods (capital resources). When finished, have each group meet with one other group and compare responses, or compare responses as a class.

13. Display Visual 3 and allow groups to check their work.

### CLOSURE

Review the main points of the lesson with the following.

1. What are productive resources? (*natural resources, human resources, and capital goods (capital resources) available to make goods and services*)

2. What are natural resources? (*gifts of nature; they are present without human intervention*) Give some examples of natural resources. (*oil, trees, land, water, stones, coal*)

3. What are human resources? (*the quantity and quality of human effort directed toward producing goods and services*) Give some examples of human resources. (*maid, factory worker, librarian, bus driver, teacher, engineer*)

4. What are capital goods (capital resources)? (*goods produced and used to make other goods and services*) Give some examples of capital goods. (*school, trash truck, classroom desks, knife*)

### ASSESSMENT

Have students identify a building in their community. Tell them to list five human resources, natural resources, and capital goods

(capital resources) that were used to construct the building.

## **EXTENSION**

**Science:** Research how the Egyptians designed the pyramids, including the movement of stone and the placement of boats.

**Economics:** If students are familiar with the economic concept of opportunity cost, ask what might have been the opportunity costs involved in building the pyramids.

**Art:** Create a model of a pyramid, labeling the human resources, capital goods (capital resources), and natural resources.

**Language Arts:**

1. Write an essay describing how a ski area or other resort area uses productive resources.
2. Using the British Museum web site, have students read the story, then describe Khufu's pyramid complex in a paragraph in their words. See the following web address.  
[www.ancientegypt.co.uk/pyramids](http://www.ancientegypt.co.uk/pyramids)

**Note:** This lesson can be adapted to use with structures built by other people in different time periods, such as Sumerian ziggurats, medieval cathedrals, the Great Wall of China, and Mayan Temples. Activity 2 and Visual 2 must be modified accordingly.

Visual 1  
**Resources**

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**Productive resources are the natural resources, human resources, and capital goods available to make goods and services.**

\_\_\_\_\_ , such as land, are “gifts of nature;” they are present without human intervention.

\_\_\_\_\_ are the quantity and quality of human effort directed toward producing goods and services.

\_\_\_\_\_ are goods produced and used to make other goods and services.

Visual 2

## **Pyramid Resources**

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**Stone cutters**

**Sleds**

**Barges**

**Ramps**

**Boatmen**

**Wooden rollers**

**Engineers**

**Bakery**

**Boats**

**Land**

**Tool makers**

**Mud**

**Granite**

**Levers**

**Stones**

**Cedar trees**

**Pulleys**

**Workers**

**Bakers**

**Oars for barges**

**Astronomers**

Visual 3

**Pyramid Resource Classification**

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<b>Human</b>	<b>Capital</b>	<b>Natural</b>
<b>Stone cutters</b>	<b>Sleds</b>	<b>Land</b>
<b>Bakers</b>	<b>Barges</b>	<b>Stones</b>
<b>Engineers</b>	<b>Ramps</b>	<b>Cedar trees</b>
<b>Boatmen</b>	<b>Levers</b>	<b>Mud</b>
<b>Tool makers</b>	<b>Oars for barges</b>	<b>Water</b>
<b>Astronomers</b>	<b>Pulleys</b>	<b>Granite</b>
<b>Workers</b>	<b>Boats</b>	
	<b>Wooden rollers</b>	

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Activity 1  
**Cards**

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<b>School</b>	<b>Maid</b>
<b>Water</b>	<b>Classroom Desks</b>
<b>Crude Oil</b>	<b>Knife</b>
<b>Factory Worker</b>	<b>VCR</b>
<b>Land</b>	<b>Trees</b>
<b>Trash Truck</b>	<b>Librarian</b>
<b>Bus Driver</b>	<b>Stones</b>
<b>Engineer</b>	<b>Books</b>
<b>Teacher</b>	<b>Coal</b>

## Activity 2

# Pyramid Resource Classification

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**Natural**

**Capital**

**Human**