Cool Cars and Trucks
By Sean Kenney, Henry Holt and Company, 2009
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LESSON AUTHOR

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LESSON DESCRIPTION

Many children like to play with LEGO. This lesson is written about the book, Cool Cars and Trucks, by Sean Kenney, an adult who is a LEGO Certified Professional whose job is to make sculptures and models out of LEGO bricks in his studio in New York City. In this lesson students will identify the economic resources – natural, human, and capital – used to construct LEGO models. Students will also identify the economic concepts of “scarcity”, “opportunity cost”, “private good/service,” and “public good/service.” Interactive SMART board slides and activities corresponding to this lesson can be used as a substitute or supplement for the lesson’s print activities at the discretion of the teacher.

GRADE LEVEL

3-5

ESSENTIAL QUESTION

How can LEGO be used to understand economic resources, opportunity cost, scarcity, and private goods and services, and public goods and services?

CONCEPTS

<table>
<thead>
<tr>
<th>Capital resources</th>
<th>Opportunity cost</th>
<th>Scarcity</th>
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<tbody>
<tr>
<td>Human resources</td>
<td>Private goods and services</td>
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<tr>
<td>Natural resources</td>
<td>Public goods and services</td>
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CONTENT STANDARDS

Voluntary National Content Standards in Economics

- Standard 1, Scarcity, Opportunity Cost, Natural/Human/Capital Resources: 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.
- Standard 16, Public Goods and Services: There is an economic role for government to play in a market economy whenever the benefits of a government policy outweigh its costs.

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Governments often provide for national defense, address environmental concerns, define and protect property rights, and attempt to make markets more competitive. Most government policies also redistribute income.

**Common Core State Standards**

- CCSS.Reading: Informational Text 1. Grade 4: Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.

**OBJECTIVES**

Students will be able to:
- define natural, human and capital resources.
- give examples of natural, human, and capital resources.
- explain why resources are scarce.
- define opportunity cost.
- explain the difference between public and private goods and services.

**TIME REQUIRED**

Two 45-minute periods

**MATERIALS**

- LEGO bricks (or similar building blocks) that the teacher and students bring from home
- *Cool Cars and Trucks* by Sean Kenney, Henry Holt and Company, 2009
- Copy of Resource Workeet for each student
- Glue
- Ruler
- Scissors
- SMART board slides (optional)

**PROCEDURES**

Day One

1. Beforehand, ask students to bring some LEGO bricks (or similar building blocks) to class on Day One. Also bring some examples of LEGO bricks to class. Show the LEGOds you brought to school and ask the students, “What are these and what do you do with them?” *(LEGOs; build things)*

2. Tell the students that you are going to read a book about a man named Sean Kenney who is a LEGO Certified Professional; that is, he is one of the best LEGO brick builders in the world. Read the book, *Cool Cars and Trucks*, and make sure you show the pictures. Students are going to use the pictures to answer the follow-up questions.

3. Explain that *scarcity* means we do not have enough of something to make all the goods and services we want. Ask the students to look at the picture on p. 7 (“Can you change the SUV to look like these cars?”). Ask students the following questions: Why would you have to change
the SUV? Why can’t you make a second, third, or fourth car at the same time? (Scarcity of LEGO bricks)

4. Explain that when people make a decision they give up their second-best choice (but not all their choices). This is called opportunity cost – what you give up when you make a decision. Ask a student to pick his or her favorite SUV on the right side of the picture on p. 7. Then ask that student which vehicle would be her or her second favorite choice. Finally ask, which one would be your opportunity cost if you made your first choice? (The second favorite choice) If time permits, ask this series of questions to other students.

5. Explain that private goods and services are bought and used by a consumer, such as a cup, food, clothes, or haircuts, that are then not available for others to use. Public goods and services can be used by many people, even if they do not directly pay for them, and are usually paid for by the government using taxes. Examples of public goods and services are police protection, roads, stoplights, fire protection, and national defense. Looking at pp. 10-11, ask students the following questions: What is the private good? (Car – owned by a consumer); what is the public good/service? (Police officer provides public service of protection and the police car is a public good).

Closure

6. Students can do the following activity individually or divide students into small groups and use the LEGOs they brought to school. Tell students to construct a good of their choice that is not shown in the book. Ask students to write answers to the following questions on paper:

   (1) Name the good they made. (Answers will vary)
   (2) Is it a public or private good? (Answers will vary)
   (3) After measure the good, what are its length, width, and height? (Answers will vary)
   (4) What good was their opportunity cost when they chose to make this good? (Answers will vary) Why couldn’t they build the good bigger? (Scarcity of LEGOs)

Day Two

1. Tell the students that today we are going to talk about the three types of resources (sometimes called factors of production) that are used to make goods and services. Resources are scarce, so we should be wise in how we use them.

2. Explain that capital resources are goods made by people to help produce other goods and provide services. Examples of capital resources are a hammer, computer, or building. A capital resource is not used up in making a good or service. A capital resource can be used over and over again. Referring to the book, ask students, what are the capital resources shown on pp. 12-13? (Luggage carrier, bus, luggage ramp up to the airplane)

3. Explain that natural resources are anything that occurs naturally in the world and are not made by people. Examples of natural resources are trees, minerals, air, and water. Referring to pp. 14-15 in the book, ask students, what color LEGO represents a natural resource and which natural resource does it represent? (Brown; dirt and rocks)

4. Explain that human resources are people who do work to produce goods and services. Examples of human resources are a teacher, gardener, office worker, and salesperson. As a class, make a list of the human resources shown in the book and the job they are doing.
ANSWERS

Human Resource   Job
• Taxi driver (pp. 8-9)   Drive a taxi cab
• Police officer (pp. 10-11, 19)   Protect citizens
• Luggage loader (p. 12)   Load and unload people’s luggage at airport
• Airport vehicle drivers (pp. 12-13)   Drive luggage and passengers
• Construction workers (pp. 14-15)   Build buildings
• Firefighters (p. 18)   Fight fires and rescue people
• Paramedics (pp. 18-19)   Take care of people hurt in an emergency
• Movers (pp.24-25)   Move furniture
• Truck drivers (pp.20-21,23)   Drive trucks
• School bus driver (p.23)   Drive a school bus
• Ice cream seller (p.26)   Drive truck and sell ice cream
• Telephone worker (p. 27)   Repair telephone lines and poles
• Car mechanic (p.28)   Repair cars

Closure

5. Distribute a Resource Worksheet, scissors, and glue to each student. To check for understanding: (1) Tell students to cut off the bottom strip with the resource pictures and identify the objects or activity in each resource picture; (2) then tell students to carefully cut out each picture and glue it under the correct resource category. When the students are finished, review and correct the worksheets.

ANSWERS

NATURAL: fish, grass, log
CAPITAL: calculator, chair, computer (Students may mention the hammer the carpenter is using)
HUMAN: baker, bank teller, carpenter

EXTENSION ACTIVITY

1. Go online and search for information about the “history of LEGOs.” Answer the following questions:
   • Who invented LEGO?
   • In what country was LEGO invented?
   • In what year was LEGO invented?
   • Who is now in charge of the company and what relationship is he to the original inventor?
Glossary

**Capital resources** - goods made to help produce other goods and provide services

**Human resources** - people who do work to produce goods and services

**Natural resources** - resources found in nature, or “gifts of nature,” that are not made by people

**Opportunity cost** – what is given up when someone makes a decision, their second-best choice

**Private goods and services** – goods and services bought and used by a consumer that are not then available for others to use

**Public goods and services** – goods and services that can be used by many people, even if they do not directly pay for them, and are usually paid for by the government using taxes

**Scarcity** – the situation when there is not enough resources to produce all the goods and services consumers want
Resource Worksheet

Instructions: Cut off the bottom strip with the resource pictures. Look at each picture and determine if it is an example of a natural, capital, or human resource. Then cut out each picture and glue it under the correct resource category.

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