

The Diamond–Water Paradox

Understanding Value, Scarcity, and Choice in Economics

Grade Level

Grades 9–12

Time Required

1 class period (30–50 minutes)

Subject Area

Economics / Social Studies

Lesson Overview

One of the most fundamental concepts in economics is **value**. Students often assume that items are valuable simply because they are rare or expensive. This lesson challenges that assumption by introducing the **Diamond–Water Paradox**, a classic economic problem that asks why some of the most essential items in life cost very little, while non-essential luxury items can be extremely expensive.

Through a survival-based narrative and guided discussion, students examine how **scarcity, usefulness, demand, and context** influence value and decision-making.

Learning Objectives

Students will be able to:

- Explain how value is influenced by scarcity, usefulness, and demand
- Describe the Diamond–Water Paradox in their own words
- Analyze how context and situation affect economic choices
- Apply economic reasoning to a hypothetical scenario
- Defend a decision using economic principles

Key Vocabulary

- Value
 - Scarcity
 - Demand
 - Utility
 - Opportunity Cost
 - Diamond–Water Paradox
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Anticipatory Set / Narrative Scenario

Read the following scenario aloud to students:

Imagine that you are a prospector and explorer. After years of searching, you have finally discovered the legendary Lost Dutchman’s Mine. You have recovered a large amount of gold and are carrying it with you as you make your way back to civilization.

On your journey out, you become lost in the desert. It is summer, and temperatures rise above 100 degrees Fahrenheit. You have run out of water, and none can be found. You are weak, dehydrated, and close to death.

Just as you are about to collapse, a lone hiker finds you. He has water. He offers you one bottle of water—but only if you give him all of the gold you are carrying.

What do you do?

Guided Discussion Questions

After presenting the scenario, lead students through the following questions:

1. Would you give the hiker the gold in exchange for the water? Why or why not?
2. Does the gold have the same value to you in this situation as it did before?
3. How much is the water worth to you at this moment?
4. What factors are creating the value of the water?
5. Is value fixed, or does it change depending on circumstances?

Encourage students to justify their answers using economic reasoning rather than emotion alone.

Direct Instruction: The Diamond–Water Paradox

Explain to students:

- Water is essential for life, yet it is usually inexpensive.
- Diamonds are not essential for survival, yet they are very expensive.
- This contradiction is known as the **Diamond–Water Paradox**.

Emphasize that value is not determined only by usefulness, but also by:

- **Scarcity** (How rare is it?)
- **Demand** (How badly do people want it?)
- **Context** (Where you are and what you need at that moment)

In the desert scenario, water becomes extremely scarce and highly valuable, while gold loses much of its practical value.

Student Task (Optional Written Response)

Have students respond in writing to one or more of the following:

- Explain the Diamond–Water Paradox using the desert scenario.
 - Why does water usually cost less than diamonds, even though it is more necessary?
 - How does this scenario demonstrate opportunity cost?
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Assessment Options

- Class participation in discussion
 - Short written explanation or exit ticket
 - Think-pair-share summary
 - Informal formative assessment through questioning
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Teacher Notes

- This lesson works especially well early in an economics unit.
- Emphasize that **value is subjective and situational**, not permanent.
- Encourage respectful disagreement—there is no single “correct” answer to the scenario.
- Students often remember this lesson long after the unit ends due to the narrative hook.

Extensions & Enrichment Activities

Extension 1: Modern Paradox

Ask students:

- Why is clean drinking water inexpensive in some places but priceless in others?
- How does this apply to disaster zones or droughts?

Extension 2: Personal Value Reflection

Have students list:

- One item they value highly that others may not
- One item they usually ignore but would value greatly in an emergency

Extension 3: Economic Comparison

Compare the Diamond–Water Paradox to:

- Gas prices during shortages
- Medical supplies during pandemics
- Internet access during emergencies

Extension 4: Writing Prompt

“Is value determined more by usefulness or scarcity? Defend your answer using examples.”

Conclusion

This lesson helps students understand that economic value is not simply about price, but about **choice, scarcity, and human need**. By placing students in a realistic survival scenario, abstract economic principles become concrete, memorable, and meaningful.