

RESOURCE LIBRARY
ACTIVITY : 30 MINS

Geography of a Pencil

Students map the origins of a pencil, predict and map trade and transport networks, and relate what they learn to globalization.

GRADES

4 - 8

SUBJECTS

Geography, Human Geography, Social Studies, Economics

CONTENTS

2 PDFs, 1 Link

OVERVIEW

Students map the origins of a pencil, predict and map trade and transport networks, and relate what they learn to globalization.

For the complete activity with media resources, visit:

<http://www.nationalgeographic.org/activity/geography-of-a-pencil/>

DIRECTIONS

1. Discuss the component parts of a pencil.

Distribute pencils to students. Ask: *What materials or natural resources do you think make up a pencil?* Organize student ideas on the board. Then project the Geography of a Pencil handout. Discuss students' ideas while comparing them to the information in Table 1 on the handout. Describe each of the component parts of a pencil while pointing to each of the materials.

2. Discuss the geographic origins of the materials used to make a pencil.

Ask: *Now that you know the different materials in a pencil, where do you think all of these materials originate?* Have students point on the World Political MapMaker Kit to countries they think might produce parts of a pencil. Explain to students that these materials come from all around the world, and that many countries contribute different materials used to make a pencil. Show students Table 2 on the handout Geography of a Pencil and explain that the countries included are the top producers of these materials. Tell students that these five materials come from many different areas, but that the countries listed on the handout are some of the top producers of the materials. Using a world atlas for reference, have students identify these countries on the World Political MapMaker Kit, and have a volunteer label the countries with the product name. You can either do this as a whole class with the World Political Mega Map or in groups with the smaller tabletop version.

3. Divide students into country groupings.

Divide students into six groups, with each of five groups representing one of the countries where each of the materials is made. Assign the sixth group to represent the United States, or the country in which you live. Have each group make a sign with its country name. Have students also include the country flag, if time permits. Tell groups of students (except the United States group) that they represent a company in that country that wants to build a factory to produce pencils, but they need to figure out how to get the other materials to make a pencil. Tell the United States group that they are the consumer and need to purchase finished pencils for their company to distribute to schools in the United States.

4. Brainstorm methods of moving goods around the globe.

Ask groups to brainstorm and write a list of the different methods of transportation that are used in trade to move goods around the world. Invite each group to write on the board one of the methods they have listed. As a whole class, discuss some of the benefits and challenges of the different methods of transportation. Organize this list in a chart that everyone can share or see. As part of this exercise, ask: *How fast are the different methods? How much of a good can be transported at one time? What other factors might affect the use of a method?*

Encourage students to think about the costs of fuel to power the ship, plane, train, truck or other vehicle. Other factors students may identify or recognize include political disputes or environmental hazards.

5. Have groups use the map to create networks of transportation.

Explain that students will next create a plan to make and sell their company's pencils. Students will need to use the map to determine where they can get the necessary materials. Have them work on the map to create a materials flow chart using lines, arrows, and symbols to show where they plan to get materials and how the materials will get to them. Then have students use arrows, lines, and symbols to show how they plan to move their products to the United States. Have each group use a different color to represent their company's materials transportation plan. Have the United States group do a similar exercise, but limited to how they can potentially get pencils from each of the countries. Tell the United States group that they will later have to pick one of the companies from which to purchase pencils.

6. Have groups present their plans and discuss.

Have each of the five groups present their plan to the class. Have the sixth group—the United States or the country where you live—take a moment to decide which company's pencils might be the best option for them to purchase. Then have them explain why. Allow students from other countries to try to convince the buyer country to purchase their pencils instead. Encourage students to reflect on how the countries are connected through the pencil production process. Ask: *In what ways does the United States (or the country in which you reside) depend on other countries for the pencils we use? What other products can you think of that might be, like the pencil, "connected" to more than one country?*

Extending the Learning

Point out to students that many resources from many different countries are needed to make even the most simple, everyday objects. Have students check the labels on their clothing to see where they were made. Then ask them to use markers to plot the locations on the map.

OBJECTIVES

Subjects & Disciplines

Geography

- Human Geography

Social Studies

- Economics

Learning Objectives

Students will:

- identify component parts of a pencil
- recognize major producing countries of pencil materials on a map
- create maps of trade and transport networks
- discuss global trade and identify factors that affect it

Teaching Approach

- Learning-for-use

Teaching Methods

- Brainstorming
- Discussions
- Hands-on learning

Skills Summary

This activity targets the following skills:

- 21st Century Themes
 - Global Awareness
- Critical Thinking Skills
 - Analyzing
 - Understanding

- Geographic Skills
 - Acquiring Geographic Information
 - Analyzing Geographic Information
 - Organizing Geographic Information

National Standards, Principles, and Practices

NATIONAL COUNCIL FOR SOCIAL STUDIES CURRICULUM STANDARDS

- Theme 7:

Production, Distribution, and Consumption

NATIONAL GEOGRAPHY STANDARDS

- Standard 11:

The patterns and networks of economic interdependence on Earth's surface

VOLUNTARY NATIONAL CONTENT STANDARDS IN ECONOMICS

- Standard 6: Specialization and Trade:

When individuals, regions, and nations specialize in what they can produce at the lowest cost and then trade with others, both production and consumption increase.

Preparation

What You'll Need

MATERIALS YOU PROVIDE

- Dry erase markers
- Markers
- Paper
- Pencils
- World atlas

REQUIRED TECHNOLOGY

- Tech Setup: 1 computer per classroom, Projector

PHYSICAL SPACE

- Classroom

GROUPING

- Large-group instruction

OTHER NOTES

Before starting this activity, assemble the World Political MapMaker Kit Mega Map for large-group instruction, or the tabletop map for work in smaller groups. Watch the assembly video included on the MapMaker Kit web page for more instructions on assembly.

BACKGROUND & VOCABULARY

Background Information

Many countries that are geographically distant from each other are intricately connected through the trade of goods and services. Transportation, politics, weather, climate, and the social decisions of consumers are just a few of the many factors that affect trade between countries.

Prior Knowledge

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Recommended Prior Activities

- None

Vocabulary

| Term | Part of Speech | Definition |
|-----------------|-----------------------|--|
| consumer | <i>noun</i> | person who uses a good or service. |
| good | <i>noun</i> | object or service that serves a human need or want. |
| producer | <i>noun</i> | person or organization that creates (produces) goods and services. |

| Term | Part of Speech | Definition |
|----------------|---------------------------|--|
| trade | <i>noun</i> | buying, selling, or exchanging of goods and services. |
| transportation | <i>noun</i> | movement of people or goods from one place to another. |

For Further Exploration

Maps

- [National Geographic Education: World Political MapMaker Kit](#)

Websites

- [National Geographic Earth Pulse: Globalization](#)

