

# **Where is the Power?**

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## **OVERVIEW OF MAIN IDEA:**

This lesson will give students an overview of the energy resources in Wyoming using relative location.

## **TEACHING LEVEL:**

Grade 7-8

## **CONNECTION TO THE CURRICULUM:**

This lesson shows students the energy resources found in Wyoming. It also uses relative location to locate these resources on the giant map of Wyoming. This lesson works best in a Geography classroom.

## **CONNECTION TO THE NATIONAL STANDARDS:**

III. People, Places and Environment  
VIII. Science, Technology and Society

## **CONNECTION TO THE STATE STANDARDS:**

3. Production, Distribution and Consumption
  - 2) Students describe the exchange of goods and services, past and present.
5. People, Places and Environments
  - 2) Students apply the themes of geography to the topic being studied
  - 3) Students demonstrate an ability to organize and process spatial information.

## **TIME:**

1 (45-50 minutes) class

## **MATERIALS REQUIRED:**

Giant floor map of Wyoming, 20 energy resource place cards (5 petroleum, 5 uranium, 5 wind, and 5 coal), 20 town name location cards (4 towns near each energy source cited above), pencils and location cards for directions

## **OBJECTIVES:**

--Students will connect major cities with the resources found nearby

- Students will associate the theme of location with finding places and regions on the giant Wyoming floor map.
- Students will use relative location to find and describe locations.
- Students will communicate a series of instructions for finding relative location to others orally or in writing.

## **GEOGRAPHIC THEMES or SKILLS:**

The Theme of Location

## **SUGGESTED PROCEDURE—**

### **OPENING:**

Introduce students to the giant map of Wyoming, explaining that this is an introduction to Wyoming energy resources. Inform students that you will be moving into a unit on energy resources in Wyoming and that this is a lesson to introduce the topic.

### **DEVELOPMENT/PROCEDURE:**

- Put students in five groups. (optimal number is 4 but dependant on class size) There will be one wind group, one uranium group, one oil group, one coal group and one natural gas group.
- Give each group 1 set of energy resource location cards and the 4 matching town location cards, as well as a printed version map of the giant floor map of Wyoming. You will also need to distribute a blank location card to each student.
- In groups, students split up the towns (1 for each student if in groups of four)
- Each student is responsible for creating a separate note card for their town.
  - The card must contain five clues that their town is in relation to (they need to use cardinal or intermediate direction to make these clues):
    - (1) A water feature
    - (2) A land feature
    - (3) A roadway
    - (4) Another county
    - (5) Another town.
- When completed the class will move to the big Wyoming map.
- Groups will work together to discover the location of each town.
  - \*\*First wind group will give their relative location clues to the coal group, second the oil group to uranium group, third the coal group to natural gas group, fourth the uranium group to wind group, and finally the natural gas group to oil group (see below).

- \*\*Wind will give their energy place cards to the coal group,  
who will then split them up (goal is to have each  
student complete at least one card).
- One member each of first two groups will approach the map. (1 member of the wind group and 1 member of the coal group)
  - The student from the wind group will read their clues, 1 at a time with a pause between each for the other member to look, as the clues are being read the member from the coal group will use the clues to locate the town the student from the wind group is describing.
  - When the town is found, the energy resource location card will be placed on the town that was described
  - Repeat the process until all cards are placed.
  - Those two groups return to their seats.
  - Call up next two groups, and repeat the process.
  - The process continues until all five groups have read clues and followed a set of instructions as well.

### **CLOSING or CONCLUDING THE LESSON:**

When task is complete, students can move from the map. They now have an overhead view of the location of energy resources in Wyoming.

### **ASSESSMENT OF STUDENT LEARNING:**

All students return to their seats. Students take out notebooks and describe the successes and frustrations of the assignment. Finally, students should evaluate and describe the most important information they learned from this activity and why that information was important. If wanted a matching quiz can be implemented to have the students match the energy resources to the towns, this would check for understanding and listening.

### **EXTENDING THE LESSON:**

You would extend the lesson by moving into a unit on energy resources in Wyoming. Students would be introduced to energy resources in Wyoming, their importance to the economy and alternatives that are becoming more prominent.

### **RESOURCES:**

Giant Map of Wyoming

<http://www.nrel.gov/docs/fy00osti/28095.pdf>

[http://en.wikipedia.org/wiki/Uranium\\_mining\\_in\\_Wyoming](http://en.wikipedia.org/wiki/Uranium_mining_in_Wyoming)

<http://www.wma-minelife.com/coal/coalhome.html>

<http://www.pawyo.org/>