Using Natural Resources Teacher Facilitation Notes

In General . . .

- Project the slide deck in edit mode-do not show it as a slideshow.
- Hide the speaker notes before projecting. (View/Show Speaker Notes)
- Hide the toolbar. (Click on the up arrow at the right end of the tool bar.)
- Call on students to read the various content shown on slides.
- Duplicate copies of the data sheets for each student.

Materials Needed:

Engage: What is Soil? (Per group)

Paper or plastic cups, 2 Balloon Rock
Picture of rooster Cardstock Tray

Elaborate: Fireworks Salt Painting (Per student)

Black construction paper Table salt White glue Watercolors Water Paint brush

Cookie sheet Paper towels Hairspray (optional)

Additional Materials:

Science notebooks, 1 per student Pencils

Student Data Sheet, 1 per student Student Evaluation, 1 per student

Engage: Natural Resources

- Prior to beginning the lesson, duplicate the pictures of the rooster on cardstock. Cut apart. Make sure there are enough pictures for each group of 4 to have one. Blow up and tie off a balloon for each group.
- Divide the class into groups of four. Give each group a cup of water, a sealed balloon, a cup of soil, a rock, and the picture of a rooster.
- On their data sheets, the students list the items they have. Make sure they
 concentrate on what is IN the cups and the baggie (water, soil, and air).
- Have the students discuss what ONE thing these items all have in common. If necessary, lead them to the idea that they are all natural things found on the Earth. You might ask, Where can we find all of these things?
- Have students complete the engage data sheet.
- Read through and discuss the Natural Resources introductory slide.
- Brainstorm natural resources the students see in the photograph of the mountain lake. Be sure they include sunlight and air.
- Briefly discuss energy and materials resources. As you do, ask students how they might use that resource. For example, soil is used to grow plants. Oil is used to make gasoline for our cars, etc. If they can't give an example of how something is used, ask leading questions to help them figure it out.

Using Natural Resources Teacher Facilitation Notes, p. 2

Explore/Explain

- Read through and discuss the slides on natural resources used in agriculture, construction, transportation, and the making of products.
- Have students complete the data sheet sketching or listing different ways natural resources are used by humans. Discuss as desired.

Elaborate: Fireworks Salt Painting

- Call on a volunteer to read the first slide. Discuss as desired.
- Have students follow the directions to complete their salt paintings.
- Discuss what natural resources were used in making the painting.
- Display in classroom or nearby hallway.

Evaluate: Using Natural Resources

- Let students complete the quiz independently.
- Discuss as desired.

Evaluation

- 1. Which of these natural resources are most useful in helping plants grow?
 - (A) Water, air, soil, and sunlight
 - B Plastics, oil, coal, and natural gas
 - C Dogs, soil, apples, and bees
 - D Crops, spiders, water, and meat
- 2. Which of the following are uses of wood that comes from trees? Mark all that apply.

Name: Key

- F To feed dogs
- **G** To fuel cars
- (H) To make tables
- J To construct sidewalks
- (K) To build houses
- (I) To make pencils
- 3. From which natural resource is most clothing made?
 - **A** Animals
 - **B** Fossil Fuels
 - (C) Plants
 - **D** Water
- 4. What is one way rocks are used in the construction of houses?
 - F To make water pipes
 - **G** For countertops
 - **H** For burning in fireplaces
 - J To use in windows

Evaluation

Write the main natural resource used to make each product shown below.









Name: Key



- 5. Glass Sand
- 6. Socks Plants
- 7. Index card Plants (trees)
- 8. Milk Animals (cows or goats)
- 9. Gasoline Fossil fuels (oil)

For each natural resource shown below, write one way it is useful in construction, agriculture, transportation, or to make products.

- 10. Fresh water Answers will vary, accept all reasonable answers students can justify.
- 11. Plants_____
- 12. Sunlight _____
- 13. Minerals _____
- 14. Animals
- 15. Metals ______
- 16. How are fossil fuels used in transportation?
 - (F) As fuels for different vehicles
 - **G** To construct bridges
 - H To produce electricity for street lights
 - J To make food for horses

Engage: Natural Resources









JSi	ng Natural Resources	Name:
Eng	jage: Natural Resources	
1.	On the lines below, list the items on yo	our tray,
2.	Explain why each of these items is imp	portant to people
_	<u> </u>	
My	Conclusions:	
All	of the things on the tray are	
tha	at people use in their everyday lives.	

Name:

Explore/Explain

Sketch or list 3 ways natural resources are used in construction.

Sketch or list 3 ways natural resources are used in agriculture.

How are Natural Resources Used?

Sketch or list 3 ways natural resources are used in transportation.

Sketch/list 3 ways natural resources are used in making products.

Evaluation

- 1. Which of these natural resources are most useful in helping plants grow?
 - A Water, air, soil, and sunlight
 - B Plastics, oil, coal, and natural gas
 - C Dogs, soil, apples, and bees
 - D Crops, spiders, water, and meat
- 2. Which of the following are uses of wood that comes from trees? Mark all that apply.
 - F To feed dogs
 - **G** To fuel cars
 - H To make tables
 - J To construct sidewalks
 - **K** To build houses
 - L To make pencils
- 3. From which natural resource is most clothing made?
 - **A** Animals
 - **B** Fossil Fuels
 - **C** Plants
 - **D** Water
- 4. What is one way rocks are used in the construction of houses?
 - **F** To make water pipes
 - **G** For countertops
 - **H** For burning in fireplaces
 - J To use in windows

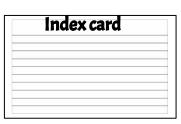
Using	Natural	Resources	5

Evaluation

Write the main natural resource used to make each product shown below.











- 5. Glass
- 6. Socks_____
- 7. Index card _____
- 8. Milk_____
- 9. Gasoline

For each natural resource shown below, write one way it is useful in construction, agriculture, transportation, or to make products.

- 10. Fresh water _____
- 11. Plants _____
- 12. Sunlight _____
- 13. Minerals _____
- 14. Animals
- 15. Metals _____
- 16. How are fossil fuels used in transportation?
 - **F** As fuels for different vehicles
 - **G** To construct bridges
 - H To produce electricity for street lights
 - J To make food for horses