CLASSROOM ACTIVITY GUIDE
7th & 8th

Name:
Date:

Wells Vocabulary and Note Taking Sheet

Directions: Read the vocabulary below. Then use the vocabulary when answering the questions. Make sure to read the directions to the question so you know when in the lesson you are supposed to be answering the question. Questions will be answered at different points in the lesson.

Wells Vocabulary

- **Well:** a hole that is dug into the Earth to get water.
- **Aquifer:** layers and areas of rocks below ground where all the cracks, crevices, and spaces between rock particles are full of water.
- **Pressure tank:** a tank in which a liquid or gas is stored under pressure.
- **Conserve:** the act of keeping or protecting from waste, loss, or destruction of water.

Video: How does water get to your house?

Directions: Answer questions 1 and 2 while watching the video. Write down 2 things that you learned about wells from the video.

1.

2.

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Wells Reading

Directions: Answer questions 3,4, and 5 after reading the Wells reading sheet.

3. How do wells help people in different communities?

4. How do wells impact the environment?

5. How can you conserve water?

Wells Project

Directions: Answer questions 6 and 7 as you are completing your well project. Name 2 things that you noticed as you are completing your well project.

6.

7.

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Wells Assessment

Directions: Answer the following questions about wells in full sentences. Make sure you include the vocabulary words well, aquifer, and conserve in at least one of your answers.

1. How do wells work? Please describe in two or more full sentences.

2. How do wells help people in different communities?

3. How do wells impact the environment?

4. How can you conserve water?

Classroom Activity Guide

Grade: 7th/8th
Duration: 1 hour
Date: Any

Lesson Topic: Well System

Lesson Objectives:

Students will be able to create their own version of a well system.

Students will be able to write about how wells work, help people, and ways to conserve water.

Essential Question:

How do wells work?

How do wells help people in different communities?

How do wells impact the environment?

What can people do to conserve water?

Standards: CCSS.ELA-LITERACY.RI.7.10

By the end of the year, read and comprehend literary nonfiction in the grades 6–8 text complexity band proficiently, with scaffolding as needed at the high end of the range.

CSS.ELA-LITERACY.L.8.6

Acquire and use accurately grade-appropriate general academic and domain-specific words and phrases; gather vocabulary knowledge when considering a word or phrase important to comprehension or expression.

CCSS.ELA-LITERACY.W.8.4

Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

NGSS 1. Interdependence of Science, Engineering, and Technology. 6–8 Connection Statements—All human activity draws on natural resources and has both short and long-term consequences, positive as well as negative, for the health of people and the natural.

Classroom Activity Guide

Grade: 7th/8th
Duration: 1 hour
Date: Any

Materials, Equipment:

- Half a cup of rocks per students
- 2 Cups per student (can be paper, plastic, whatever you have)
- 1 Soap dispenser cup per student
- Half a cup of water per student
- 1 Computer, smart board, or laptop to show students the video
- https://www.youtube.com/watch?v=cGi4PugN4qY&t=143s "How Does Water Get to Your House?"
- 1 Pencil per student
- 1 Wells reading passage per student
- 1 Wells Vocabulary and Notes sheet per student
- 1 Wells assessment sheet per student
- 1 Class sizes white board, 1 white board market, 1 eraser

Extension materials: (optional)

- Make Your Own Well! | Science Project for Kids https://www.youtube.com/watch?v=dkk_YbB139E
- "What can we do to help?" https://climatekids.nasa.gov/how-to-help/

Vocabulary:

- **Well:** a hole that is dug into the Earth to get water.
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- **Conserve:** the act of keeping or protecting from waste, loss, or destruction of water.

INTO | Anticipatory Set (How will students get engaged in learning in multiple ways?):

1. Verbal questions (2 minutes) Ask students the following questions. Have students raise their hand and call on students to share their answer with the whole class: 1) Where did you get your water from today? 2) Do you know where your water came from before that? 3) Was your water clean or dirty?

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2. Lesson goals (1 minute) Read the classroom goals for this lesson out loud to all of the students.

Goals: I can create my own well. I can write numerous sentences about how wells work, how they help people, and how to conserve water.

3. Vocabulary sheet (4 minutes) Hand out the Wells Vocabulary and Note Taking Sheet to the students. Read the vocabulary words and definitions to the students. Remind students that they should only answer the questions on the sheet after certain parts of the lesson.
4. Video and notetaking(6 minutes) Show students the video https://www.youtube.com/watch?v=cGi4PugN4qY&t=143s "How Does Water Get to Your House?". Students should be answering questions 1 and 2 on their Wells Vocabulary and Note Taking Sheet during or after watching the video. Students must write down 2 things they learned about wells from the video. Then have some students raise their hand to share what they wrote that they learned while watching the video.
5. Reading: (15 minutes) Hand out the Wells reading passage to each student. Have 1 student read each paragraph of the Wells reading passage aloud to the class. Take note of the pictures and how the well systems work. Have students work in pairs to discuss and answer questions 3, 4, and 5 on their Wells Vocabulary and Note taking sheet after finishing the reading. Students can reread parts of the passage and the vocabulary words if needed. After students finish, have some pairs raise their hands to share their answers to these questions.

THROUGH | Explain and/or instructional steps (multiple means of representation & engagement): Students will create their own wells- here is a youtube video that shows how to make the wells if you need an example https://www.youtube.com/watch?v=dkk_YbB139E

6. Project Set up (2 minutes) Give each student 2 cups, a half cup of rocks, a half cup of water, and a soap dispenser pump
7. Project (6 minutes) Have students put half a cup of rocks in 1 cup. Then they add half a cup of water to the cup with the rocks. Then they put the soap dispenser in the cup with the water and the rocks. Put the extra cup next to the cup with rocks,water, and soap pump. Face the mouth of the soap pump into the empty cup. Have students press the soap pump transferring water into one cup to the empty cup.
8. Project Vocabulary (3 minute) Ask students which part of the project is the well? Which part is the aquifer? Have students discuss this in partners and then write their answer in question 4 of their Wells Lesson Questions sheet.
9. Project discussion (2 minutes) Have students discuss in pairs what they notice about what is happening in their well project.
10. Project notes (3 minutes) Students should answer questions 5 on their Wells Lesson Questions sheet individually.

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BEYOND | Applications/extensions/activity (multiple means of engagement & expression):

11. Class discussion: (3 minutes) Ask students "How can we help people to have access to clean water in the future?". Students can look back at the reading for ideas if needed. Have multiple students raise their hands and share their thoughts with the class.
12. Assessment (15 minutes) Hand the assessment sheet out to students. Students will individually answer the questions on the sheet using full sentences and the vocabulary related to wells.
13. Share (2 minutes) Have students verbally share what they learned from this lesson.

Extension: For more information on how to conserve water and stop global warming, students can go to https://climatekids.nasa.gov/how-to-help/