

Lesson One: It's Electric!

Grade Level: 3rd Grade

Time: 45 minutes

Essential Question: How can we be stewards of Wyoming's mineral and energy resources to benefit current and future generations?

Objectives: Students will:

- Identify Wyoming natural resources as renewable or nonrenewable.
- Determine what constitutes good steward from given scenarios.

Purpose: Students identify that electricity comes from both nonrenewable and renewable resources.

Required Materials/Resources:

- Definitions of Stewardship, Renewable, and Nonrenewable
- Stewardship Scenarios
- Energy Resources sheet (one per student)
- Energy Resources sheet answer key
- Energy Resource Production sheet (one per student)
- Exit Ticket template (one per student)

Suggested Teacher Preparation:

• Read Stewardship definition and Stewardship Scenarios.

TEACHER NOTE: If you feel your students need additional support to understand the differences between renewable and nonrenewable resources, use supplemental resources to build background knowledge for this lesson. • Make copies of the Energy Resources sheet and the Energy Resources Production sheet back to back.

Standards:

Social Studies: SS5.1.1 (Explicit)

ELA: 3.SL.1.c,d (Practiced/Encountered)

Vocabulary:

- **Electrical energy** energy that is delivered through tiny charged particles called electrons
- Nonrenewable resources resources that cannot be replenished (made again) in a short period of time
- **Renewable resources** resources that are capable of being replenished
- **Stewardship** As Wyoming citizens, we are stewards entrusted with the responsible development, care, and use of our resources to benefit current and future generations.

Instructional Procedure/Steps:

- Say: "It is one of the responsibilities of a citizen to be a good steward. A steward is someone who practices stewardship. What is stewardship?" After students share responses, read aloud the Stewardship definition. Ask: "What do you think the definition means?" Key point of student responses should be responsible/efficient use of resources.
- 2. Say: "Today, we are going to discuss different types of resources that generate electricity and how we can be good stewards when using electricity. Electricity is electrical energy, which is delivered through tiny charged particles called electrons. We use electricity to power many things in our homes and lives. What are some things that you can name that use electricity?" Have students share responses.

- 3. Pass out the Energy Resources sheet. Have students write the appropriate energy resource under each image.
- 4. Post the key, and have students check their answers against it. Clarify misunderstandings as needed.
- 5. Present the definitions of renewable and nonrenewable. Say: "A renewable resource is a resource that is capable of being replenished. A nonrenewable resource is a resource that cannot be replenished (made again) in a short period of time." Using the Energy Resource Production sheet, work as a whole class to identify each resource as either renewable or nonrenewable.
- 6. Ask: "Can you think of some ways that you could be a good steward using electricity?" Have students share responses. Say: "Now, we are going to consider some scenarios and decide if students are being good stewards of electricity or not." Read aloud the first Stewardship Scenario. Have students turn and talk with a partner to discuss if they think that is an example of being a good steward. If they think it is, have them share what they believe makes it an example of a good steward. If not, have them share a way the scenario could be changed so that it shows good stewardship. When finished discussing scenario one, continue with rest of the scenarios.

TEACHER NOTE: This is an opportunity to practice some vocabulary strategies. Students can talk about their previous schema of "renewing." For example, a library book is renewable. Relate a library book to the word renew in this context. Before giving students the definition of nonrenewable, ask them what the prefix "non" means and to predict the definition of the word.

Assessment:

Pass out an Exit Ticket template to each student. Students individually explain what makes a resource renewable or nonrenewable. *If students are not able to explain correctly, more discussion of renewable and nonrenewable should occur before moving onto the next lesson.*

Additionally, you may want to have a whole group reflection discussion in which students share ways they are already

identifying to become better stewards of electricity both at home and school.

Credits/Sources:

 U.S. Energy Information Association - EIA. (n.d.). *EIA Energy Kids: Energy Sources* Retrieved June 26, 2017, from <u>https://www.eia.gov/kids/energy.cfm?page=2</u>