

Co-Teaching Lesson Plan

Teacher 1: Amy Morrison

Teacher 2: Suman Henehan

Co-Teaching Approach(es): Place an **X** or a **✓** on the line in front of each approach outlined in the lesson.

- Parallel Teaching Team Teaching Station Teaching
 One Teach,One Observe One Teach,One Assist Alternative Teaching

Subject: Science	Topic/Lesson: Resources	Date:6/27/17
Standard(s): 6.2-a,c,d & 6.5 e & 6.9 a,b		
Lesson Outcomes: Comparing Energy Sources		
Materials Needed: Index cards, Research materials, Copies of the attached handout		
Vocabulary: electrical energy, energy transformation, geothermal energy, hydro power, kinetic energy, mechanical energy, nonrenewable, nuclear energy, potential energy, renewable, solar energy, sound energy, thermal energy, turbine		
Lesson Component	Teacher 1	Teacher 2
<p>Anticipatory Set</p> <p><i>Co-Teaching Approach:</i> Teaming to introduce the lesson.</p>	<p>1.Tell students that they are going to research the eight most commonly used energy sources to compare and contrast them. Make sure students understand that there are two types of energy, kinetic and potential, and that the many forms of energy, such as electrical and chemical, can be classified as one type or the other. Also, emphasize that there are many sources of energy, most of which, with the exception of geothermal and tidal, originate directly or indirectly with the sun.</p> <p>3. Provide each student Discuss the meanings of renewable and nonrenewable. Teacher will hand out the concept comparison Table to compare renewable and nonrenewable resources. Ask students Students will discuss completed concept comparison Tables of their examples of renewable and nonrenewable energy and support their ideas with a reason/categories. Students should place the eight sources of energy in one of the categories.</p>	<p>2. Ask students to work in pairs to list as many forms of energy as possible. Work together to refine the list to come to the eight types of energy you will be researching.</p>
<p>Lesson: Activities/ Procedures</p> <p><i>Co-Teaching Approach:</i> One teach-one observe for steps 1 and alternative teaching for steps 2 (researching)</p>	<p>Write the name of each energy source on an index card.1. After class has reviewed comparison Table, the teacher will assign each pair one of the eight energy sources to research. Divide students into eight groups, and have each group draw a card to determine the energy source that will be their research topic.</p> <p>3. Have student groups pairs present their answers to the research questions and other data orally in class. During the presentations, have students individually fill in the attached Sources of Energy chart, comparing and contrasting the various energy sources. Use this data to lead a discussion of the sources of energy.</p>	<p>2. Have the groups use classroom, library Library Source to be used and Internet resources to research the answers to the following questions and gather data for a classroom presentation and discussion: What is your energy source? What is the origin of your energy source? What uses does your energy source currently have? How readily available is energy from your energy source? What is required to acquire energy from this source? What advantages does your energy source have? What disadvantages does your energy source have? Is your energy source renewable or nonrenewable? Has the use of your energy source changed over time? How long will your energy source be available on</p>

		<p>Earth? What type of management is necessary for your energy source? Rate the overall desirability of your energy source on a scale of 1 to 10. Be prepared to defend your answer.</p>
<p>Guided/Independent Practice</p> <p><i>Co-Teaching Approach: Alternative Teaching</i></p>	<p>Teachers will be helping students complete the energy sources chart and guiding as needed.</p>	<p>Teachers will be helping students complete the energy sources chart and guiding as needed.</p>
<p>Closure</p> <p><i>Co-Teaching Approach: One Teach, One Assist</i></p>	<p>Supply each pair with the information outlined under Background Information attached, and review each energy source briefly. Use this data to lead a discussion of the sources of energy.</p>	<p>Use this data to lead a discussion of the sources of energy.</p>
<p>Formative Assessment Strategies</p> <p><i>Co-Teaching Approach: Alternative Teaching (pull outs if necessary to complete exit ticket)</i></p>	<p>EXIT TICKET: Questions: o What are the features of, and management options for, renewable sources of energy? o What are the features of, and management options for, nonrenewable sources of energy?</p>	
<p>Homework</p>	<p>Have students create an electronic slide (GoogleSlide) or digital video presentation about one of the energy sources discussed in class today, including the pros and cons of each.</p>	
<p>Specially Designed Instruction and Accommodations, Modifications for Specific Students</p>	<p><u>Strategies for Differentiation:</u> Label a state, regional or national map to show where sources of energy are found.</p> <p>Assign small groups three energy sources to research and become "resident experts" about the three sources. Have each group create a poster to explain where the three sources of energy originate, how they are transformed, and whether they are renewable or nonrenewable.</p> <p>Set up a visual/tactile representation for each energy source. For example: use a flashlight or light bulb to represent the sun OR have students stand in front of a fan to demonstrate wind energy OR use a desktop waterfall or pour water from a cup to demonstrate hydro-powered water</p>	<p>Cultural Diversity: Students can discuss which of the eight energy sources they have come in contact with in their cultures.</p>

Notes:

For students who finish early, they can research a new energy source not already researched in the lesson today to share at the end of the day (example: algae, human kinetic energy, poop power).

To include levels of inquiry:

Level 3-

Students will be prompted with the question: What type of energy sources are available in today's society?