

TECH: Alternative Energy - Wind Power (Energy/Pow) Modu

Summary

New....pdf. update in December 2011! Students will generate electricity using a wind generator. Students will convert the created electricity into different forms of energy. It is written as a module.

Time Frame

1 class periods of 45 minutes each

Group Size

Pairs

Life Skills

Thinking & Reasoning, Communication, Employability

Materials

Teachers will need a table which will be big enough for: 1. An fan. 2. Pitsco's Windynamo II - Wind generator. 3. Multimeter--- Pitsco's Windynamo has changed since the original concept. To complete this activities measurements students will also need the multimeter.

Background for Teachers

The teacher will need to be able to understand how the blades need to be set on the wind generator so that he/she may assist the students if they would need help. It is also important to check the fan on first use to see that it produces enough wind movement for the generation of electricity to produce sound with the buzzer. The images on this document come from a variety of sources. They are either public domain, royalty fee, created by the author, or used by arrangement with the copyright holders. No permission is granted for the copying or re-use of any images used in this document, copyrighted or otherwise. Alternative Energy - Wind Power© . USOE has purchased rights to the document which gives individual teachers within the state of Utah rights to print this document for use in their classes.

Student Prior Knowledge

The student will need to be able to read and write.

Intended Learning Outcomes

Students will generate electricity by using a wind generator. Students will convert the created electricity into different forms of energy.

Instructional Procedures

Students will need to read the booklet and answer questions as they do the activity. Students will need to perform the experiments that are required to answer the questions. The teacher needs to have the wind generator, the output device, and the fan ready for use.

Strategies for Diverse Learners

If something simpler is needed for a special needs student. "How a wind turbine works" This site and animation may fit the bill. The "wind power animation" has clickable parts that are explained for students that want to know more.

Assessment Plan

The student will complete a worksheet, and perform the experiments with wind speed, blade pitch, and energy conversion.

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