

Lesson Plan

Kinetic Energy or Potential Energy

Book: *Making a Witch Trap for Hansel and Gretel*

Series: Fairy Tale Science

Level: Beacon

Objective

To help students explore the relationship between kinetic energy and potential energy.

Supplies

- *Making a Witch Trap for Hansel and Gretel* book
- Kinetic Energy or Potential Energy worksheet (attached)
- Pencils

Before the Activity

Print a copy of the Kinetic Energy or Potential Energy worksheet for each student. Read *Making a Witch Trap for Hansel and Gretel*, or assign it to students to read on their own.

Activity

Pass out the Kinetic Energy or Potential Energy worksheets. Then have students turn back to Chapter 4 (“The Science Behind the Trap”). This chapter describes the relationship between kinetic energy and potential energy. The worksheet has several sentences about energy. Each sentence describes either kinetic energy or potential energy. Students should determine which kind of energy each sentence describes. They can refer to the chapter if they get stuck.

Evaluation

Use the attached answer key to give students 1 point for each correct answer, for up to 16 points total.

Standards

This lesson may be used to address the Common Core State Standards’ reading standards for informational texts, grade 3 (RI 3.1), and the National Science Education Standards’ Content Standard B, grades K–4.

Kinetic Energy or Potential Energy

Energy can be kinetic or potential. Which kind of energy does each sentence describe? Write your answer in the space below.

1. This is the energy of movement.
2. A book sitting on a table has this kind of energy.
3. A book falling off a table has this kind of energy.
4. This is the energy an object has because of its position.
5. This energy sends a roller coaster zooming down a hill.
6. A roller coaster loses this energy when it moves up a hill.
7. A roller coaster gains this energy when it moves up a hill.
8. A ball resting on a high shelf has this kind of energy.
9. A ball rolling along the floor has this kind of energy.
10. An arrow flying through the air has this kind of energy.
11. An arrow in the string of a bow has this kind of energy.
12. This is the energy an object has because of its motion.
13. Objects higher off the ground have more of this kind of energy.
14. The box has this kind of energy when it is held up by the stick.
15. The box has this kind of energy when it falls to trap a toy.
16. This is stored energy.

Kinetic Energy or Potential Energy **ANSWER KEY**

Energy can be kinetic or potential. Which kind of energy does each sentence describe? Write your answer in the space below.

1. This is the energy of movement.

kinetic

2. A book sitting on a table has this kind of energy.

potential

3. A book falling off a table has this kind of energy.

kinetic

4. This is the energy an object has because of its position.

potential

5. This energy sends a roller coaster zooming down a hill.

kinetic

6. A roller coaster loses this energy when it moves up a hill.

kinetic

7. A roller coaster gains this energy when it moves up a hill.

potential

8. A ball resting on a high shelf has this kind of energy.

potential

9. A ball rolling along the floor has this kind of energy.

kinetic

10. An arrow flying through the air has this kind of energy.

kinetic

11. An arrow in the string of a bow has this kind of energy.

potential

12. This is the energy an object has because of its motion.

kinetic

13. Objects higher off the ground have more of this kind of energy.

potential

14. The box has this kind of energy when it is held up by the stick.

potential

15. The box has this kind of energy when it falls to trap a toy.

kinetic

16. This is stored energy.

potential