

Forms of Energy



Kinetic and Potential
Energy Science Center
Activity, Foldable and
Quiz

Forms of Energy

Kinetic and Potential Energy Science
Center Activity and Foldable

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journal

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keys

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(front and back copy)

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key

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Forms of Energy

Kinetic and Potential Energy Science Center Activity



Above is an example of how this center could be utilized. I cut out the Kinetic and Potential Energy mats and glued them inside a color file folder. I placed a pocket on the front of the file folder that holds one set of cards. There are two sets of cards, therefore, I labeled the file folders Set A and Set B. Students arrange the cards onto the mat, check their answers and write the example forms of energy onto their recording sheet that they glue into their interactive science journal.

Kinetic and Potential Energy Center



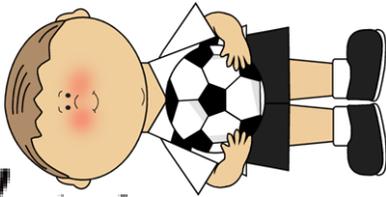
Directions:

1. Take one recording sheet and glue onto your science interactive journal and write your name.
2. Take out the set of cards from the front pocket of your file folder.
3. Arrange the cards according to the form of energy shown on each card.
4. After you finish arranging the cards check your answers with the answer key and make any corrections necessary.
5. Write your answers onto your recording sheet.
6. Gather your set of cards and place back into the front pocket of your file folder.

Kinetic Energy



Potential Energy



Set A of Kinetic and Potential Energy Mat cards.



A rock at the edge of a cliff

Dominoes standing in a row



Holding a baseball bat

A bus driving down the street



Going down a slide

A train traveling down the track.



A parked car



A stretched rubber band



Someone pushing a cart

A runner at the starting blocks



A wrecking ball hitting a wall

Kicking a soccer ball



A golf ball on a tee

Roller skating down the sidewalk



Directions: Cut and laminate (optional) the kinetic/potential energy examples. Have the students place them on the Forms of Energy Mats. Then have students record their answers on the Recording Sheet.

Set B of Kinetic and Potential Energy Mat cards.



Hitting a
volleyball
over the
net

Holding a
soccer
ball in
place



Riding a
skateboard.

Dominoes
falling



Standing
bowling
pins

Sitting at
the top of
the slide



Roller-
coaster
going down
the tracks

Slinky
moving
down the
stairs



Swinging
a baseball
bat

An apple
hanging
on a tree.



Gasoline

A
stretched
bow



Getting
on the
school
bus

Holding
a football



Directions: Cut and laminate (optional) the kinetic/potential energy examples. Have the students place them on the Forms of Energy Mats. Then have students record their answers on the Recording Sheet.

Forms of Energy

Recording Sheet

Kinetic Energy	Potential Energy

Name: _____

Forms of Energy

Recording Sheet

Kinetic Energy	Potential Energy

Name: _____

Forms of Energy

Recording Sheet

Kinetic Energy	Potential Energy

Name: _____

Forms of Energy

Recording Sheet

Kinetic Energy	Potential Energy
A bus driving down the street	A rock at the edge of a cliff
Going down a slide	Dominoes standing in a row
A train traveling down the track	Holding a baseball bat
Someone pushing a cart	A parked car
A wrecking ball hitting a wall	A stretched rubber band
Kicking a soccer ball	A runner at the starting blocks
Roller skating down the sidewalk	A golf ball on a tee

Name: _____ Answer Key: Set A

Forms of Energy

Recording Sheet

Kinetic Energy	Potential Energy
Hitting a volleyball over the net	Holding a soccer ball in place
Riding a skateboard	Standing bowling pins
Dominoes falling	Sitting at the top of the slide
Rollercoaster going down the tracks	An apple hanging on a tree
Slinky moving down the stairs	gasoline
Swinging a baseball bat	A stretched bow
Getting on the school bus	Holding a football

Name: _____ **Answer Key: Set B**

**Kinetic
Energy**

**Potential
Energy**

Glue Here

What is **kinetic energy**?

What is **potential energy**?

Examples of kinetic energy:

- ---
- ---
- ---
- ---
- ---
- ---

Examples of potential energy:

- ---
- ---
- ---
- ---
- ---
- ---

~ ENERGY ~

- Kinetic energy is known as energy of motion.
- The amount of kinetic energy in a moving object depends on its speed and its mass.
- Kinetic energy can change into other forms of energy.



- Potential energy is known as stored energy.
- It is energy that could cause changes in the future.
- Potential energy often changes into kinetic energy.



Examples of kinetic energy:

• _____

• _____

• _____

• _____

• _____

• _____

Examples of potential energy:

• _____

• _____

• _____

• _____

• _____

• _____

~ ENERGY ~

- Kinetic energy is known as energy of motion.
- The amount of kinetic energy in a moving object depends on its speed and its mass.
- Kinetic energy can change into other forms of energy.



- Potential energy is known as stored energy.
- It is energy that could cause changes in the future.
- Potential energy often changes into kinetic energy.



Examples of kinetic energy:

- Swinging a bat.
- A speeding car chase.
- Sliding down a hill on a sled.
- A falling deck of cards.
- Spinning in circles.
- Running around the block.

Examples of potential energy:

- Holding a baseball.
- A stopped car at a red light.
- Standing at the top of a hill.
- Dominoes standing in a row.
- Laying down on the sofa.
- An empty swing.

~ ENERGY ~

Name: _____

Date: _____

Kinetic and Potential Energy

Matching:

1. When an object is at rest and not in motion it has _____. A. energy
2. The ability to do work is _____. B. kinetic energy
3. An object in motion is an example of _____. C. potential energy

Multiple Choice:

4. Which of the following is the best example of increasing an object's **potential energy**?
 - A. rolling a bowling ball
 - B. stretching a rubber band
 - C. swinging a baseball bat
 - D. dropping an apple
5. An object that has **kinetic energy** must be
 - A. at rest
 - B. in motion
 - C. be held up high
 - D. on the ground

Directions: Classify the following type of potential energy (**P**) or kinetic energy (**K**).

6. _____ Walking down the sidewalk.
7. _____ A skier at the top of the mountain.
8. _____ A pitcher throwing a baseball to first base.
9. _____ Gasoline in a gas tank.
10. _____ An archer with his bow drawn.
11. _____ An apple on an apple tree in an orchard.
12. _____ A car driving down the highway.
13. _____ Water flowing down from a waterfall.
14. _____ A soccer player kicking a soccer ball across the field.



Name: Answer Key

Date: _____

Kinetic and Potential Energy

Matching:

1. When an object is at rest and not in motion it has potential energy. A. energy
2. The ability to do work is energy. B. kinetic energy
3. An object in motion is an example of kinetic energy. C. potential energy

Multiple Choice:

4. Which of the following is the best example of increasing an object's potential energy?
 - A. rolling a bowling ball
 - B. stretching a rubber band**
 - C. swinging a baseball bat
 - D. dropping an apple
5. An object that has kinetic energy must be
 - A. at rest
 - B. in motion**
 - C. be held up high
 - D. on the ground

Directions: Classify the following type of potential energy (**P**) or kinetic energy (**K**).

6. **K** Walking down the sidewalk.
7. **P** A skier at the top of the mountain.
8. **K** A pitcher throwing a baseball to first base.
9. **P** Gasoline in a gas tank.
10. **P** An archer with his bow drawn.
11. **P** An apple on an apple tree in an orchard.
12. **K** A car driving down the highway.
13. **K** Water flowing down from a waterfall.
14. **K** A soccer player kicking a soccer ball across the field.



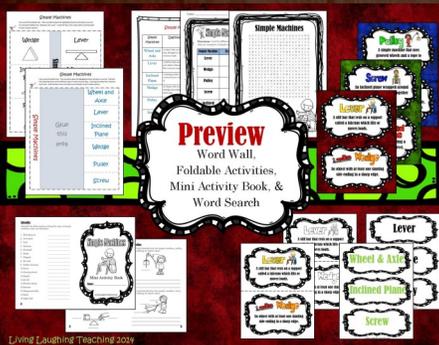
Thank You

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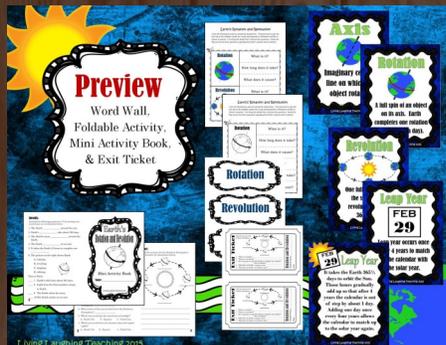
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