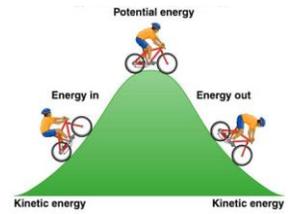


# “POTENTIAL vs. KINETIC ENERGY” WORKSHEET

Name \_\_\_\_\_ Date \_\_\_\_\_



**Directions:** Complete the following reading comprehension using the word bank.

|          |           |        |             |
|----------|-----------|--------|-------------|
| kinetic  | potential | stored | arrangement |
| released | position  | falls  |             |

A wrecking ball is pulled into position before it is released. You wind up your watch so it can tick away the seconds. A basketball player bends his knees before he jumps. What is happening? In each example energy is being \_\_\_\_\_. It is waiting to be let loose. Any object can have stored energy. It can be stored because of two reasons – its \_\_\_\_\_ or its \_\_\_\_\_.

A wrecking ball has stored energy because of its position. So does a rock resting on a ledge. A little shove and it \_\_\_\_\_. As the rock falls, it can make things move.

The spring in a watch has stored energy because of its arrangement or shape. As we wind the watch the spring squeezes together storing energy that will move your watch hands when it is \_\_\_\_\_. Scientists call stored energy \_\_\_\_\_ energy.

Energy in motion is called \_\_\_\_\_ energy. Potential energy can change into kinetic energy. Potential energy can change to kinetic energy either slowly or quickly. The watch spring gives up its energy slowly as the seconds tick away. The wrecking ball lets energy loose quickly when it is released.

**Matching** – Match the two lists. Write the correct letter on the line next to each number.

- |                                |   |
|--------------------------------|---|
| 1. _____ potential energy      | a.) energy in motion                                |
| 2. _____ kinetic energy        | b.) has potential energy because of its position    |
| 3. _____ watch spring          | c.) stored energy                                   |
| 4. _____ change from potential | d.) has potential energy because of its arrangement |
| 5. _____ wrecking ball         | e.) can be slow or quick                            |

**Matching-** Determine the best match between basic types of energy and the description provided. Put the correct letter in the blank.

(a) Kinetic Energy

(b) Potential Energy

- \_\_\_\_\_ 1. A skier at the top of the mountain
- \_\_\_\_\_ 2. Gasoline in a storage tank
- \_\_\_\_\_ 3. A race-car traveling at its maximum speed
- \_\_\_\_\_ 4. Water flowing from a waterfall before it hits the pond below
- \_\_\_\_\_ 5. A spring in a pinball machine before it is released
- \_\_\_\_\_ 6. A match burning

**Potential or Kinetic Energy**

Directions: Underline the situation in each pair that has the greater amount of **potential energy**.

- 1. A stretched or unstretched spring?
- 2. A ticking or newly wound-up clock?
- 3. A new battery in an unlit flashlight or in one which is lit?
- 4. A roller coaster car at the top of a hill or at the bottom?
- 5. A match before it is lit or a match while it is burning?

Directions: Underline the situation in each pair that has the greater amount of **kinetic energy**.

- 1. A pole vaulter before jumping or in mid-air at the top of his jump?
- 2. A bowling ball when your arm is all the way back or as it hits the pins?
- 3. A baseball bat just before it is swung or right after it is swung?
- 4. You before you get out of bed in the morning or you when you go to bed at night?
- 5. A match before it is lit or a match while it is burning?

**Potential and kinetic energy in everyday situations.**

Directions: Complete each statement with either “kinetic energy” or “potential energy.”

- 1. A rubber band being stretched and then let go is an example of \_\_\_\_\_.
- 2. The energy of motion is \_\_\_\_\_.
- 3. Energy that is stored is \_\_\_\_\_.
- 4. A ball resting on the floor and not moving is an example of \_\_\_\_\_.
- 5. A ball bouncing high off the wall is an example of \_\_\_\_\_.