

Name _____

The Energy in Wacky Walkers

Purpose: To observe energy and its changes.

Background Information:

- ⇒ **Potential Energy** is stored energy – energy that is waiting to be used.
- ⇒ **Kinetic Energy** is the energy an object has while it is in motion.
- ⇒ The **Law of Conservation of Energy** tells us that the energy can't be made or used up; it is only changed from one form into another.

Materials:

Wacky Walker	Masking tape	Tape measure
Calculator		

Procedure:

1. Read the entire lab carefully **BEFORE YOU BEGIN**.
2. Complete the title and labels (light gray sections) in the data table & have your teacher initial the chart **BEFORE YOU BEGIN COLLECTING DATA**.
3. Use the masking tape to mark a starting spot on the floor.
4. Use the pencil to wind the Wacky Walker 10 times.
5. Place the Wacky Walker at your starting spot and let it go.
6. Use the measuring tape to measure the distance the Wacky Walker traveled. Record in the data table.
7. Repeat for a total of 3 trials.
8. Wind the Wacky Walker 15 times and repeat steps 5 – 7.
9. Repeat steps 4 – 7, winding the Wacky Walker in 5 wind increments until you have taken data for 50 winds of the pencil.

What is the relationship between the variables (number of winds & distance traveled)?

Questions: Answer using complete sentences.

1. When did the Wacky Walker have *potential energy*?

2. When did the Wacky Walker have kinetic energy?

3. How was energy transformed in this investigation?

4. Explain how this investigation demonstrated the LAW OF CONSERVATION OF ENERGY.
