



SEE THE CHANGE USA

Physics II

Unit 2.3: Energy II

Lesson 2.3.3: What is Potential Energy?

Potential Energy Car

Purpose (Learning Target)

Hypothesis: If we additional spins to the car, the potential energy will _____. The evidence to support this will be_____.

Materials:

- Spool of thread
- Rubber band
- Toothpick
- Paperclip
- Tape
- Bead
- Pencil
- Ruler

Building Instructions:

1. Use the toothpick to help you insert the rubber band through the hole in the middle of the spool of thread.
2. Place the paperclip through one end of the rubber band and pull the rubber band tight from the other side so that the paperclip is flat against the spool.
3. Tape the paperclip to the end of the spool.
4. On the opposite side of the spool from the paperclip, string a bead through the rubber band. Make sure the bead is pulled through so it is flat against the spool.
5. Take your pencil and stick it through the loop of the rubber band that is coming out of the bead.
6. Now you have your potential energy car.



Testing Instructions:

1. Spin the pencil in a complete circle two times.
2. Place your car on the desk and let the pencil go.
3. Measure how far the car goes and make observations about its speed.
4. Repeat for 4 spins, 6 spins, and 8 spins.



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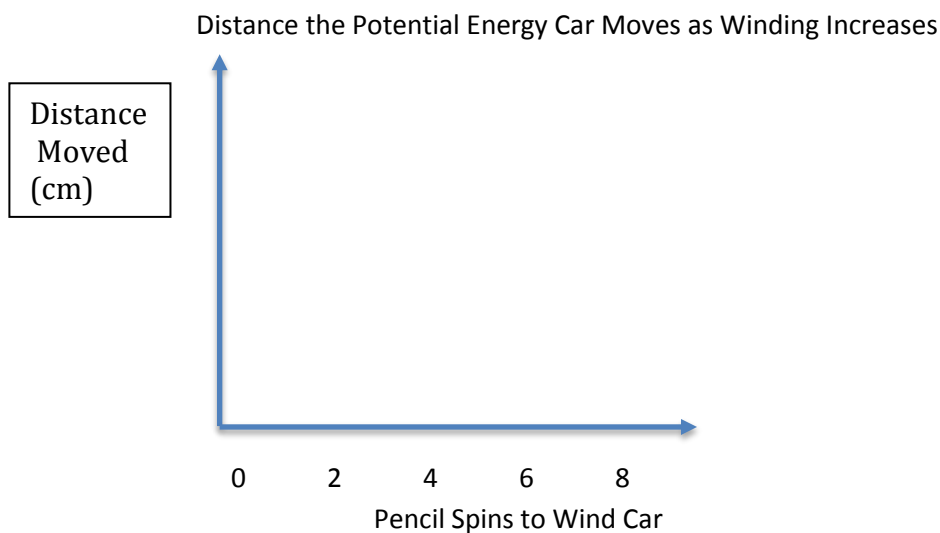
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Data:

Pencil spins	Distance moved (cm)	Observations
2		
4		
6		
8		

Graph:



Analysis Paragraph: See Format

Level 1: Define force

Level 2: Clearly identify the factors which influence how much force an object exerts

Level 3: See format for instructions.

Important: You must only use data/observations that are recorded in your write up.

Level 4: See format for instructions.

Conclusion: See format for instructions.



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