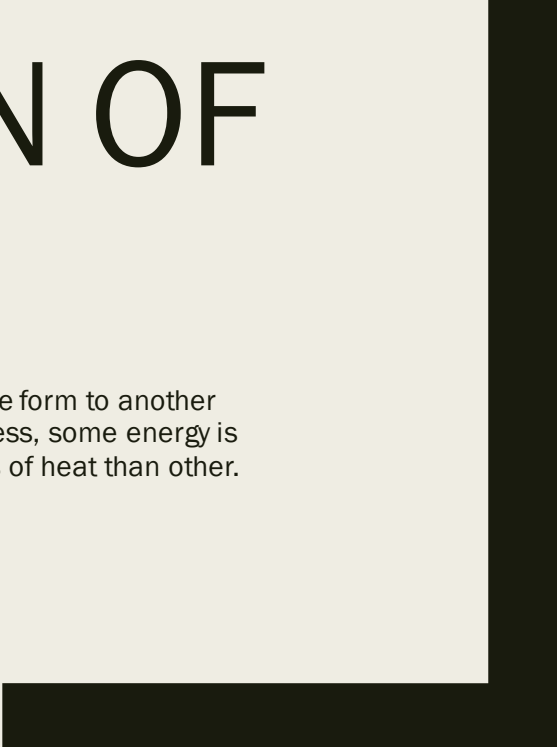


LAW OF CONSERVATION OF ENERGY

4.5a Energy cannot be created or destroyed but only changed from one form to another

4.5b energy can change from one form to another, although in the process, some energy is always converted to heat. Some systems transform energy with less loss of heat than other.



Topic: Energy- Law of Conservation

Goal: I will be able analyze the transfer of energy within a system by creating a prototype of my rollercoaster.

HW: MOSA MACK Packet & Take home quiz

Do Now: Why does a rollercoaster eventually stop? Where does the energy go?

Copy the following questions- 3 minutes

- 1) How does the rollercoaster get to the top of the hill?
- 2) What force controls the ride after the rollercoaster reaches the top of the first hill?
- 3) What type of energy does the rollercoaster have at the top of the hill?
- 4) When does the rollercoaster have the most kinetic energy and why?
- 5) What is the law of conservation of energy?
- 6) Why does the rollercoaster stop?

What is the law of conservation of energy?

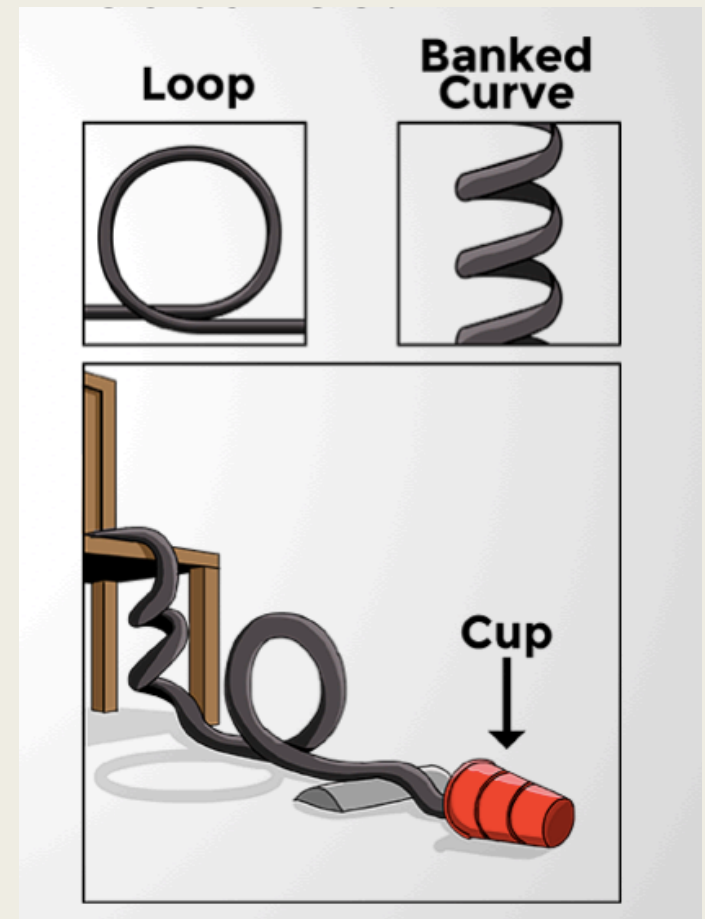
- Law of Conservation of Energy: Energy is not created or destroyed, it just transfers forms.
- When there is an energy transfer, some energy is ALWAYS converted into heat.

Stop and Jot

- How does newtons cradle show conservation of energy?

Goal: Help MOSA save the cyclops

- You need to design a rollercoaster that mimics the cyclops.
- The roller coaster MUST do the following
 - *Have at least one loop*
 - *At least one banked curve*
 - *Marble lands in the cup at the end*
 - **KEEP TRACK OF DESIGNS AND HEIGHTS AS YOU CHANGE THEM, I WILL COLLECT THESE DAILY**



Prototypes

- Recorder is responsible for keeping track of prototypes
- Prototype: model of something, especially a machine, from which other forms are developed or copied.