

Energy & Work

Energy is . . .

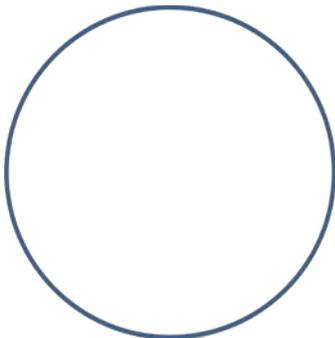
- Anything with energy has the _____ to _____ the surrounding _____.
- Definition out of the book – Energy is the _____

1st Experiment – Buggy Car Lab

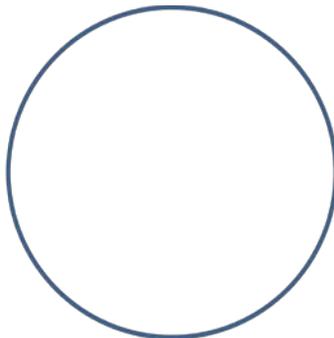
- What type of energy did the car have before it was turned on?
 - _____ Energy (_____) – Energy stored in a system (_____ you are _____) that is _____ through a _____
- When the battery does work (_____ is how _____ is _____ from one type to the other), what type of energy does the car get?
 - _____ Energy (_____) – The type of energy the system has from _____.
 - Formula:

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 - Units for all energy is _____ (_____)
- Use pie charts to show the types of energy and how much there is relative to each other.

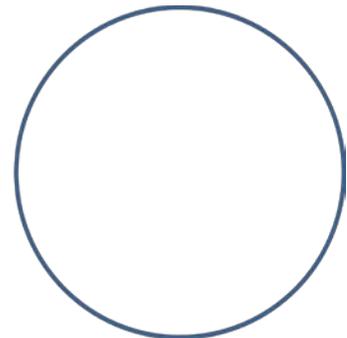
Before



As moving



Moved Farther



Dissipated Energy

- _____ = Dissipated Energy is energy that is _____ of your system _____ . This _____ to the surroundings. This energy is lost as _____, _____ and/or _____ . _____ did “ _____ ” on the system to take the energy out.

2nd Experiment – Inclined Plane Lab

- What type of energy did the car have when it was at the top of the ramp?
 - _____ Energy (_____) – Energy an object has from its _____ the earth’s _____ or on a _____ .
 - It doesn’t have to be on an incline . . . You have gravitational potential energy right now because you are above sea level.

- Formula:

h = height in meters

- What type of energy did the car gain as gravity did work on the car?

- Work = _____ the force was applied

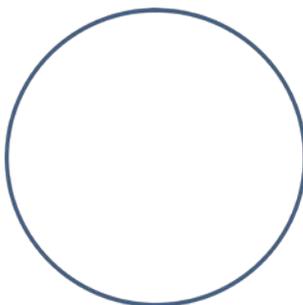
- Formula:

Work also has the unit of Joules (J)

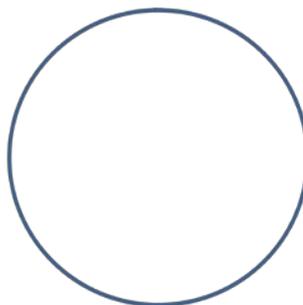
- The car gained _____ energy that _____ the _____ energy.

- Construct pie charts . . . (no friction)

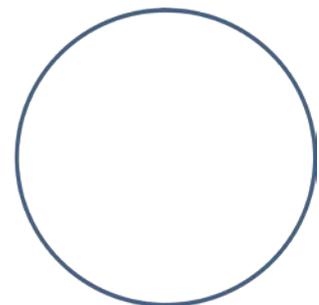
Beginning



½ way down



Bottom of Ramp



3rd Lab – Projectile Launcher

- What two types of energy did the ball have before it was launched?
 - Gravitational potential energy and . . .
 - _____ Energy (_____) – Potential energy _____ in a _____ or any _____ object that when released will _____ to its _____. (rubber band, meter stick bent, etc)
 - Formula:
 - ____ is the _____ measured in _____. It represents the amount of _____ that is _____ for every _____ the object is _____.
 - ____ is the _____ that the object has been _____ and must be _____ in _____.
- Pie charts with no friction!!!

In Launcher

Spring Sprung

Top of Path

Right before it hits the ground

