Happy Tuesday!

DO NOW

Take out last night's homework.

Copy down today's objective on page 80 in your notebook.

Objective: Describe how different forms of energy are related.

Tonight's HW

Energy Transformations and Conservation WS

TEST THURSDAY ON ALL ENERGY STUFF!

Objective: Describe how different forms of energy are related.

RSFTOD

The Orchid Mantis of Southeast Asia lives among orchids, as its pink and white coloration and petal-shaped legs give it plenty of camouflage. They sit and wait until an insect comes to pollinate the flower, then attack.

80	5-20-14
	Objective: Describe how different forms of energy are related.
	ENERGY TRANSFORMATIONS
	A change in energy from one form to another is called an energy transformation.
	There can be single energy transformations... Ex. Cell phone, toaster, ceiling fan, etc.

What are some examples of energy transformations?

Think of an iron...

Step 1. You plug it in.
(ELECTRICAL ENERGY)

Step 2. The iron gets hot.
(THERMAL ENERGY)

★ **ENERGY TRANSFORMATION!!** ★

Try to figure out the energy transformations in these examples...

Ceiling Fan

Electrical ⇒ Mechanical

Try to figure out the energy transformations in these examples...

Cell Phone

Electrical ⇒ Electromagnetic

Try to figure out the energy transformations in these examples...

Toaster

Electrical ⇒ Thermal

Or there can be multiple energy transformations.

Ex. Match, car engine, etc.

1. You strike the match (Mechanical energy)
2. This causes friction (Thermal energy)
3. Match particles light (Chemical energy)
4. Match produces fire (Thermal energy)
5. Match also produces light (Electromagnetic energy)

The most common energy transformation is between PE and KE. (Ex. juggling, pendulum)

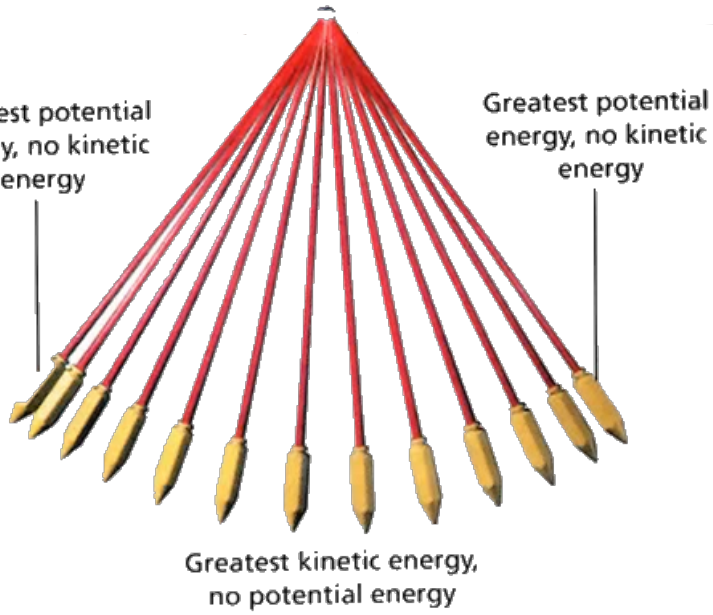
Anytime the orange is moving, it has KE.

The orange actually stops moving here. *(No motion, no KE, but lots of PE)*

As the orange rises, it loses KE, but gains PE

As the orange falls, it gains KE, but loses PE

Pendulum



The Law of Conservation of Energy

1. When one form of energy is transformed to another, no energy is destroyed in the process.
2. Energy cannot be created or destroyed.