How-to Science

Q1 What do you think the science part of this class is?

- Because we deal w/ motion electricity & change x2
- Labs and experiments we do
- Activities
- Notes
- Science (Physical)

Why?

Systematic

Q2 What is science?

- Study of things around us.
- Using models & testing them
- Explain Everything

Q1 Why are the Labs & Experiments the science portion of this class?

- Because we are doing Science
- Physically doing science
- Help us study stuff around us.
- 7th Gr - Science Steps - Do seperates from the math.

How-to Science

1) What do I want.

2) What do I know.

1) What do we want? - Calculate PE

2) What do we know?

- Mass is 1kg
- height is 1.25m
- PE = mgh
- Gravity is 10 m/s^2

Science tip #1

Always start with the equation.

1) What do we want: PE

2) What do we know

· PE = mgh

1) What do we want: Mass, Gravity, Weight

2) Wat do w know?

1.2) 1) WdWW - Kinetic Energy

2) WdWK - $KE = \frac{1}{2}mv^2$

G 1) WdWW - Mass, Velocity

2) WdWK - ✓ ∅

1) WdWW - Kinetic Energy

2) WdWK - Gravity - $10 m/s^2$

· PE = mgh

· PE = 12.5J

· Energy - Potential for work

· CoE - For a system, energy is constant

Summary of Mechanics

$\Sigma F = ma$ → tells how/when motion changes

$P = mv$ → predicts the outcome of <u>all</u> collisions

CoE → make predictions based on changes in Energy.