Standard: Determine the amount of force needed to do work.

I can identify examples of work and non- work and apply these examples to physics.

In your own words, explain what it means to "Work"? Give a short explanation and one example.

Norms:

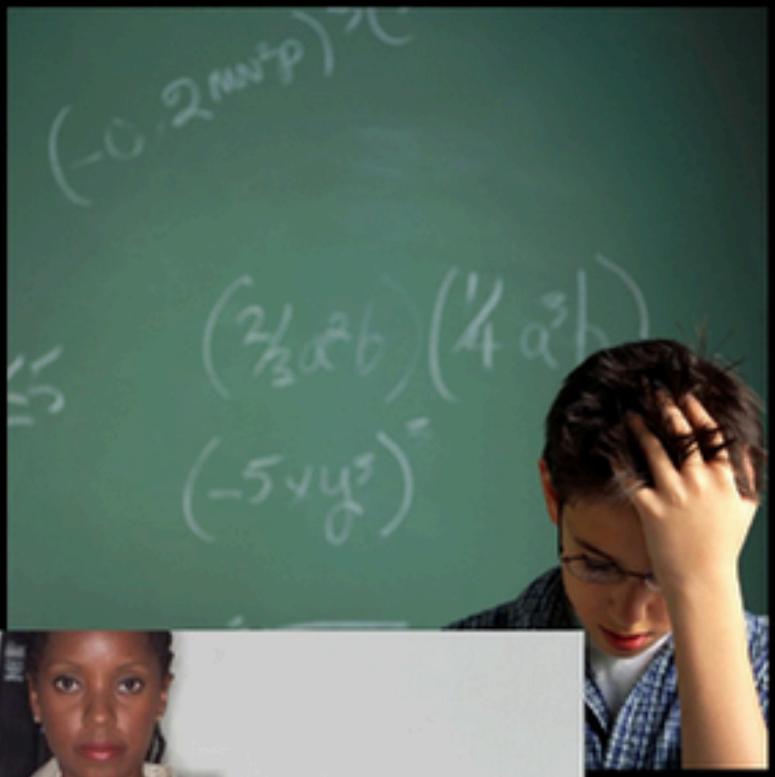
#1's = Discussion Manager

1.) Do not interrupt

2.) Talk less than 20 seconds

3.) Ready position when finished

What do you think of when you hear the word **Work** ?



Work Example

Which student is doing work?

Compare how much work was done for each student.

Example: Student 1 did more work because…

Work

A. Work **To do work, two things must occur.**

1. You must apply a force to an object.
2. The object must move in the same direction as the applied force.

See Figure 1

Explain why the girl does no work on the bags of groceries if she is standing still. **P. 426 TB**

Quick Video: DO WORK!

1. Evaluate how the requirements for work are being met.

2. Explain the force in this video.

https://www.youtube.com/watch?v=t8wuTWgBcMQ

Measurements

Force = NEWTONS

F = M X A

Work = JOULES

Work = Force X Distance

NEXT...

POWER = WATTS

POWER = Work/Time

Time to “DO WORK”!

Practice

A woman lifted a box with a force of 50N. She lifted the box 2m. How much work did she do?

Show your work.

What do you think of when you hear the word **Power** ?

What is Power?

- How quickly or rate at which work is done.
- Amount of work done per unit time.
- If two people mow two lawns of equal size and one does the job in half the time, who did more work?
- Same work. Different power exerted.
- POWER = WORK / TIME
- https://www.youtube.com/watch?v=vY1RCqIcHuY

Action	Was work done on the book?	In which direction was work done?
Lifting your books from the bottom of your locker	yes	up
Carrying your books from your locker to class		
Pushing your book across your desk for a friend to see		

Homework: Create a fun way to remember the formula for
POWER = FORCE/TIME

Exit Ticket

*How much power is used when 600 J of work are done in 10 seconds?

Show work, I will come around and check.

*HOMEWORK: