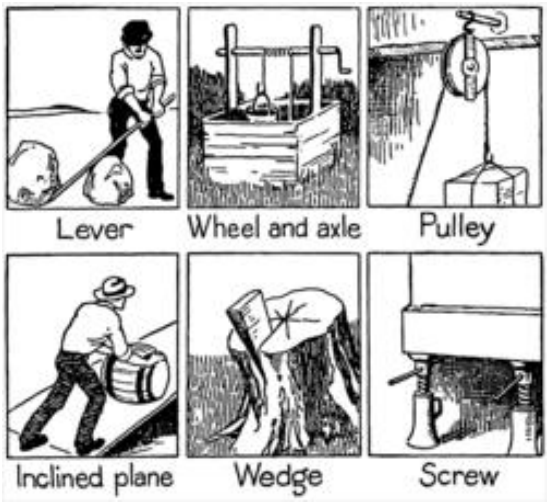
LESSON 1 WORKSHEET **NAME: ANSWER**

SCENIC SCIENCE PHYSICS

SIMPLE MACHINES (TOOLS)

We are God's workmanship; we too can be good workers.



1. What is an example of a simple tool you have at your home:
MANY POSSIBLE ANSWERS – tongs, screwdriver, hammer, axe, ramps, handles, wrench, shovel

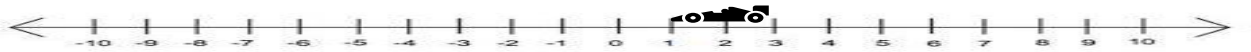
2.Define SPEED with math symbols: S = d/t

What does each letter represent? S = speed
Or S = 10 mph (an example used in class)
d = distance t = time or
= 10 mi = hour for 10 mph

3. How is velocity different from SPEED:
direction →
The ending position affects overall or average velocity. Example in class traveling 10 hrs in one direction, then 10 hrs in the opposite direction gives an average velocity of 0 mph (no matter what the speed is.) We'll discuss this concept more next class.

4. What is Newton's Third Law of Motion (using math & vector symbols is great)? For every action/force there is an equal and opposite action/force (or the object's position, motion, direction will change) → ← EQUAL BUT OPPOSITE

3. Calculate the Speed & Velocity of your "funny car" using a number line (neg to left):



The funny car (you draw) starts at 0 hrs, travels a constant 10 mph for 5 hrs to the right, then a constant 10 mph for 3 hrs to the left. Where does the car end up on the number line? 2 on the number line

My funny cars SPEED a constant 10 mph or 10 mi/hr
My funny cars VELOCITY 20 miles in 8 hrs = 2.5 mi per hour

Remember, your car traveled for 5 hours at 10 mph in one direction, 3 hours at 10 mph in the opposite ALWAYS MAINTAINING 10 mph. This number line indicates both position and time for this problem; therefore, the ending position of 2 is used to calculate average velocity.

4. Whose workmanship created you? God's created your car? mine