

Name _____
Period _____

JMJ

Date _____
Physical Science

Trimester 2 Review

Chapter 1

- What is needed to fully describe your position?
- Explain reference direction.
- What is the difference between distance and displacement? (remember what are the 2 question with displacement)
- Compare and contrast the different types of speed.
- What is the unit of speed? What is the equation to find average speed?
- How do you find the average speed of an object on a distance-time graph?
- What is velocity?
- What is acceleration? What are the three ways an object can accelerate?
- What is the formula for acceleration?
- Mark is riding his bicycle uphill. At 5s, his speed is 25m/s. But 5 s later, his speed is 15 m/s. What is the acceleration?
- Make sure you can distinguish the difference between distance-time and speed-time graphs.

Chapter 2

- List 3 contact and 3 noncontact forces.
- What is the difference between weight and mass?
- Explain gravity and the law of universal gravitation.
- Give an example for each type of friction.
- Explain Newton's Laws of Motion. Give an example of each.
- Describe balance and unbalanced forces.
- Why does the coffee in the cup go flying forward when the driver suddenly stops?
- More inertia= more _____
- What is the formula for Newton's second law?
- What keeps an object moving in circular motion?
- What is momentum? What is the formula?
- What has more momentum: a slow moving skateboard or a fast moving truck?
- Explain the two different types of collisions.

Chapter 3

- List the 6 types of simple machines and give three examples of each one.
- Define the three types of levers and give an example of each.
- Explain the difference between the three classes of levers (**F**irst= fulcrum, **secO**nd= output, **thiR**d= input)
- What is the mechanical advantage of each type of lever?
- What is the MA of a pulley? A screwdriver?
- What are the three ways that a simple machine can make work easier?
- Output work never exceeds input work because >>>
- What is IMA?
- What is work? What is power? What are they measured in?
- What are the formulas for each?
- If the object is moving, it has what type of energy?
- If the object is getting lifted, it has what type of energy?

Balancing equations

- 1) _____ Au₂S₃ + _____ H₂ → _____ Au + _____ H₂S
- 2) _____ Hg(OH)₂ + _____ H₃PO₄ → _____ Hg₃(PO₄)₂ + _____ H₂O
- 3) _____ SiO₂ + _____ HF → _____ SiF₄ + _____ H₂O
- 4) _____ HClO₄ + _____ P₄O₁₀ → _____ H₃PO₄ + _____ Cl₂O₇
- 5) _____ As + _____ NaOH → _____ Na₃AsO₃ + _____ H₂

Formulas:

Speed= distance/ time

*** Don't forget Distance-time graphs ***

*** first points & last points ***

Force= mass x acceleration

Acceleration= $V_f - V_i / \text{time}$