Applied Physical Science – Individual Presentation Follow-Up Assignment

Name: _____

Section 1 – Hearing and Sound

1. What is a "longitudinal wave?"

2. What is a "transverse wave?"

3. What type of wave are sound waves?

4. What is the relationship between the frequency of a sound and its pitch?

5. What purpose does the *eardrum* serve?

6. What is a decibel (dB)?

7. When you hear a trumpet and a trombone play the same note, how can you tell them apart? What is the difference between the two sounds (talk about the frequencies that make up the two sounds)?

8. Is there sound in outer space? Explain.

Section 2 – Buoyancy

1. What is Archimedes' Principle?

2. Does the buoyant force on an object submerged in a fluid depend on the mass of the object?

3. Define "Density."

4. How does the density of a floating object compare to the density of the fluid it is in?

5. If the density of an object is equal to the density of the fluid it is in, will it sink or float?

6. In your aluminum foil boat activity, which boats held more weight – those with the greatest *surface area* , or those with the greatest *volume*?

7. What is the density of water in kg/m^3?

8. What is the density of air in kg/m^3?

9. How big would a hot air balloon have to be if it had a mass of 1300kg?

10. How much water would a boat displace if it weighed 10,000N?