

Science 8 Unit 2

Test Outline for Chapter 5 & 6

Name: _____

Part A: Matching 12 Points

Know the definition of each of the following

Gravity	Pressure	Density	Force	Hydrometer	Hydraulics
Capacity	Mass	Buoyancy	Pneumatic	Weight	Volume

Part B: Short Response

Explain how buoyant force and gravitational force can cause an object to float or sink (May want to draw a picture to help explain)

Explain Archimedes principles (2 Parts) and know the story on how he reached this principle

Know what happens to the density of water as the temperature of water increases? (Use the particle theory to explain this)

If a dog has a mass of 50 kg, what is its weight when gravity is 9.8 N? (Show the math and you can use calculators)

The density of water is 1.00 g/ml. For each of the following indicate whether the substance would **float or sink** (In the first blank below) and if it is **more or less** dense (For each second blank)

- A substance has a density of 1.23 g/ml would _____ in water. It is _____ dense than water.
- A substance has a density of 0.53 g/ml would _____ in water. It is _____ dense than water.

Compressibility is the ability to squeeze into a smaller volume. Explain using the particle theory why gasses compress but solids do not.

How do big ships actually float (What characteristic do they have?)

Examples of flow pressure and static pressure