

Grade 8 Science Fluids Full Unit Review

1. What is a fluid?
2. List the 6 main ideas of the particle theory.
 - a)
 - b)
 - c)
 - d)
 - e)
 - f)

3. What are the 3 states of matter? Compare and contrast them.

	Solid	Liquid	Gas
Temp/energy			
Density			
Can flow			
Takes form of container			

4. Explain Archimedes Principle?

5. What is displacement?

6. What is density?

7. What is buoyancy?
8. When two materials of the same volume, does the one that has less mass have greater or less density? Explain using the density formula $d = m/V$.
9. What is the difference between adhesion and cohesion?
10. How can you change viscosity?
11. Hot air balloons use heated air to rise and sink in the air. An air ship or submarine does not. What do they do to rise and sink? (hint: they use the compressibility of air).

12. Are scuba tanks buoyant? Why.

13. Explain Pascal's Law.

14.How can you get Mechanical Advantage in a fluid system??

15.Find the density of the following materials

Volume (cm ³)	Mass (g)	Density (g/cm ³)	Float/Sink in water?	Material*
15	15			
0.621	12			
50	2.5			
3000	0.6			
20	54			

*Which one is the following – granite, gold, Styrofoam, helium and water.

16. Do gases have density too? Explain.

17. A ship rides higher when in salty ocean water compared to fresh lake water? What does this tell us about the different densities of salt water and fresh water?

18. What is the Hydraulic Advantage of this system?
Show all your work.

