

NAME: _____

DATE: _____

Dense, Denser, Densest

Generally speaking, solids are denser than liquids, and liquids are denser than gases. In this activity, you will discover whether a fluid could be denser than a solid.

Fluid	Density (g/mL)	Solid	Density (g/cm ³)
Hydrogen	0.00009	Styrofoam	0.005
Helium	0.0002	Cork	0.24
Air	0.0013	Oak	0.70
Oxygen	0.0014	Sugar	1.59
Carbon dioxide	0.002	Salt	2.16
Ethyl alcohol	0.79	Aluminum	2.70
Machine oil	0.90	Iron	7.87
Water	1.00	Nickel	8.90
Seawater	1.03	Copper	8.92
Glycerol	1.26	Lead	11.34
Mercury	13.55	Gold	19.32

What to Do:

The approximate densities of some common substances at 20°C are listed in the table. The higher the number, the denser the substance. Use the information in the table to answer the following questions.

1. Which substance in the table is the densest?

2. Which substance is the least dense?

3. Which fluid is denser than lead?

4. Water is denser than which three solids?

5. A) Which substances would float in water?

B) Which substances would sink in water?

6. Which common metals (aluminum, iron, nickel, copper, lead, gold) are less dense than mercury?