

DATE:

NAME:

CLASS:

**CHAPTER 5
REINFORCEMENT****BLM 5-6****Comparing Densities
Additional Questions****Goal** • Use this page to compare the densities of different substances.**What to Do**

- Use the information in the table to answer the following questions.

1. You drop three things into a glass of water: a piece of styrofoam, a piece of oak, and a gold ring. Which will float? Which will sink?

2. Which is more dense:

- (a) carbon dioxide or air?
- (b) oxygen or air?
- (c) hydrogen or air?

3. Sometimes people say that the air is "thinner" high up on a mountain. Is this true?

4. Someone decides that it would be wise to get rid of machine oil by dumping it into a nearby pond. This person thinks that since it is only a small amount of machine oil, dumping it would not create pollution because the machine oil would mix with the water in the pond and "disappear." What would you say to this person?

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

5. You find a white granular substance in a jar in your cupboard. You suspect that it may be either sugar or salt. How could you find out without tasting the substance?

6. Some people say that it is easier to swim in seawater than it is to swim in fresh water. Could this be true?

7. While studying for a test, a student comes to the conclusion that solids are more dense than liquids. Is this true?
