

## Chapter 3 Worksheet

Homework is not collected or graded, but should be worked on seriously every week.

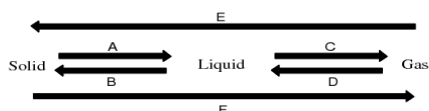
## Describing and Classifying Matter

1. What are some of the defining characteristics of the solid, liquid and gas states?

State	Characteristics
Solid	
Liquid	
Gas	

Which physical state is the most compressible? Which physical state is the densest?

2. Name all the phase changes indicated in the diagram below.



3. Pure sucrose has a melting point of 458 K. If a sample of sucrose is subjected to a temperature of 500 °F, will sucrose be in the solid state or the liquid state?
4. Indicate which of the following is a physical change, and which of the following is a chemical change.

Process	Chemical or Physical?
A match is struck and burns.	
Water in the ice tray turns into ice in your freezer.	
Sheep are sheared and the wool is spun into yarn.	
A silver chain becomes tarnished.	
Grape juice at a winery is fermented into wine.	
Salt is dissolved in water.	
Rubbing alcohol evaporates from your skin.	
Chlorine bleach removes the color from your jeans.	
Gold metal is hammered into a thin sheet.	
Baking soda fizzes when vinegar is added to it.	

5. Give four examples of physical properties and two examples of chemical properties that are used to identify pure substances.