

## Introduction to Matter

### Section 2.2 – Reinforcing Key Concepts

#### CHANGES OF STATE ARE PHYSICAL CHANGES

1. No, a substance does not undergo a chemical change during a phase change or change of state.

For example:  $\text{H}_2\text{O}$  molecules are the same in water and ice BOTH are  $\text{H}_2\text{O}$ !

However, in water they are more spread out and move quicker than molecules of ice, which are compacted and only vibrate.

Let's Draw! Fill each box with molecules to represent water and ice.

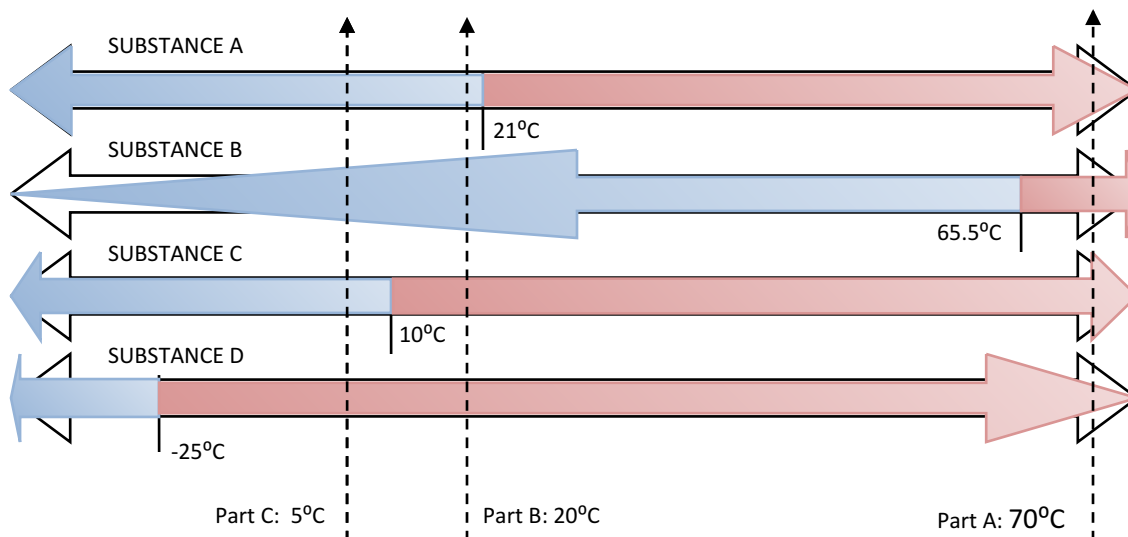
Water - $\text{H}_2\text{O}$	Ice - $\text{H}_2\text{O}$
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2. Colorful Creations: Let's use the lines below to help figure out which substances are solids and liquids at which temperatures!

The Melting/Freezing Point is noted on each line.

BELOW the point, the substance is a SOLID!

ABOVE the point, the substance is a LIQUID!



3. A. Condensation – EVIDENCE: Water droplets form on outside of container

B. Evaporation – EVIDENCE: No bubbles during change from Liquid to Gas

C. Boiling – EVIDENCE: Bubbles form as gas bubbles in the pot

