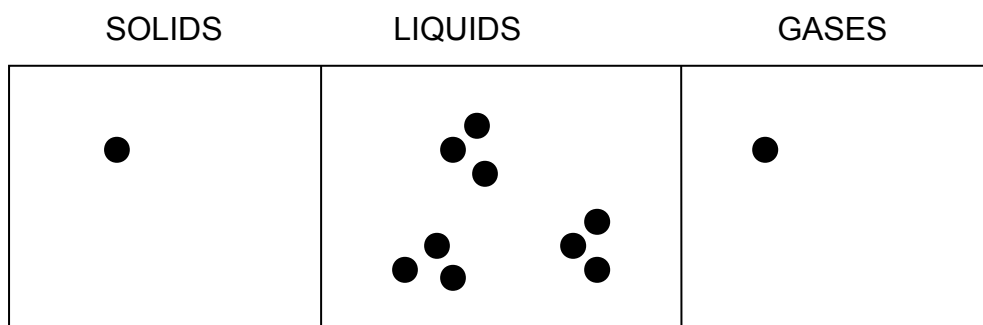


3.7 States of Matter

Name:

1. What takes up space and has mass? _____
2. List the three states of matter. _____
3. Draw particles in the spaces provided in the following diagram to show how molecules are arranged in the three states of matter.



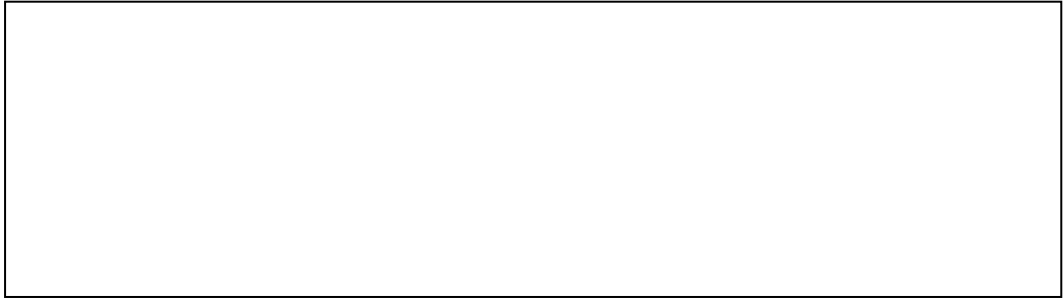
4. In which state of matter do the particles move most easily? _____
5. In which state of matter do the molecules move least easily? _____
6. Match each description below with the relevant change of state by drawing lines between them.

- | | | |
|-----------------------------------|--------------|-------------------------|
| <i>Gas changing to a liquid</i> | <i>(i)</i> | <i>(a) freezing</i> |
| <i>Liquid changing to a gas</i> | <i>(ii)</i> | <i>(b) melting</i> |
| <i>Liquid changing to a solid</i> | <i>(iii)</i> | <i>(c) evaporation</i> |
| <i>Solid changing to a liquid</i> | <i>(iv)</i> | <i>(d) condensation</i> |

7. Air is made up of a mixture of gases. Using a labelled diagram, describe how you would show that it takes up space and has mass.



8. Using a diagram to show your idea, design an experiment to test whether salt affects the rate at which ice melts.



(a) List what you need:

(b) What measurements will you make?

(c) Predict what will happen in your experiment.

(d) How accurate do you think your method will be?
