

# States of Matter

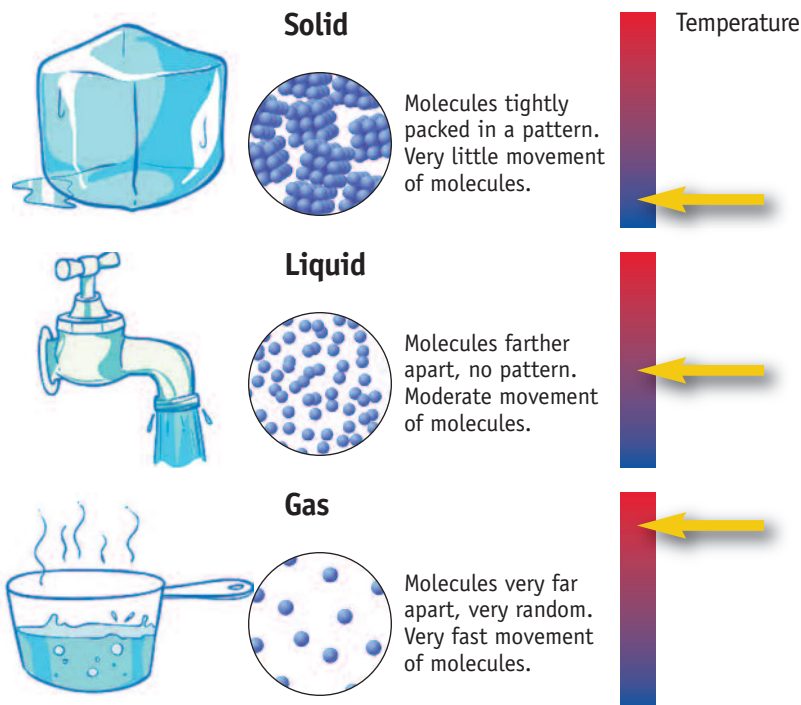


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**M**atter is the “stuff” that makes up the world around us. Anything that takes up space and has mass is considered matter. Matter is made up of molecules, which are microscopic particles.

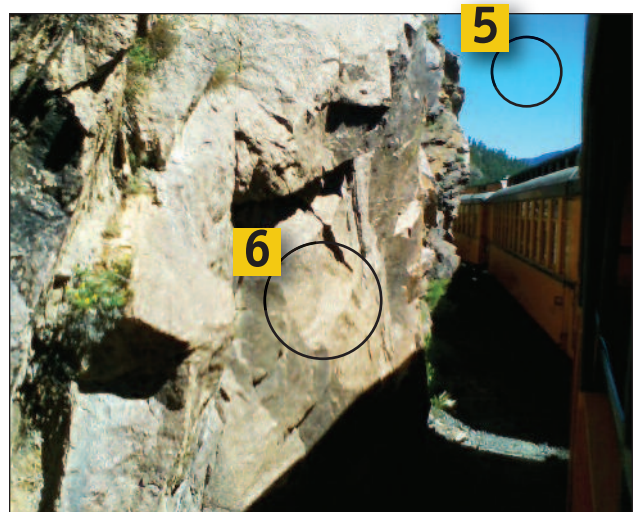
Mass is the quantity of inertia (resistance to acceleration) possessed by an object. Look at mass this way: the more mass an object has, the more force it takes to get it moving.

Matter basically exists in three states: solid, liquid or gas. In each state the molecules are arranged differently and move at different speeds. Matter changes states with either the addition or subtraction of thermal (heat) energy.



## Your Turn!

Look at the pictures below. Study the matter in the numbered circles. Try to figure out what state the matter is in. When you are done, the answers are at the bottom of the page.



Answers ... don't look until you've studied all the circles!  
1. Solid (Thicky - even though this appears to be a gas, the snowflakes are frozen solid).  
2. Solid 3. Gas 4. Liquid 5. Gas 6. Solid