EMG Education

Grade 6 - Science

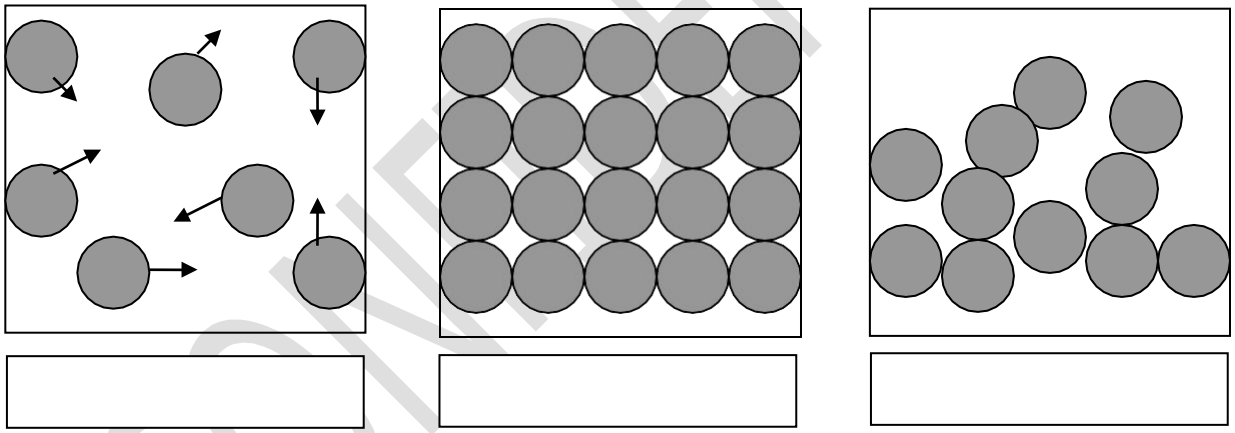
Student Review Pack

Week	Topic	Lesson	Resources
Week 13	Particle Theory	States of Matter	Longman Chemistry pg 20-29
Week 14	Particle Theory	Air Pressure	Longman Chemistry pg 30-35
Week 17	Chemistry	The Periodic Table	Longman Chemistry pg 45
Week 18	Chemistry	Chemical Reactions	Longman Chemistry pg 14

*if Longman Chemistry textbook is not available, use notes and booklets provided in class.

Particle Theory - States of Matter

Name the three states of matter below:



Write one sentence to describe the **particle** arrangement for each of the above states:

a) _____

_____

b) _____

_____

c) _____

_____

Name the processes that are described below:

Example: solid + heating = melting

a) gas + cooling = _____

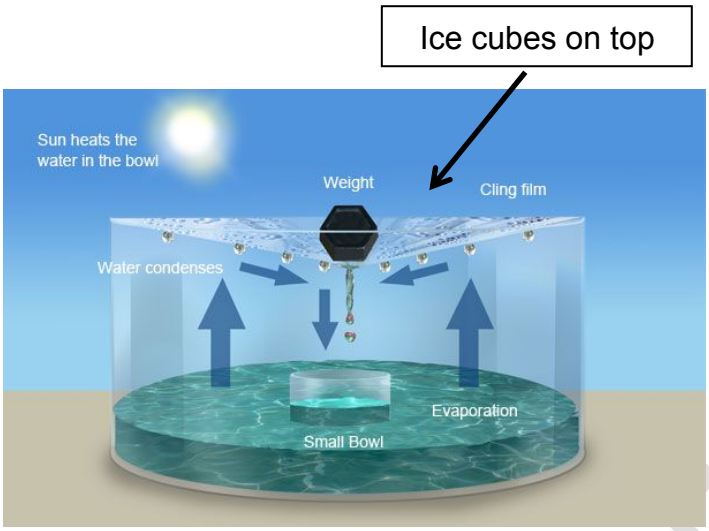
b) liquid + heating = _____

c) liquid + cooling = _____

d) solid → gas = _____

The Water Cycle
Try an experiment at home!
Search 'Water Cycle Experiment' on YouTube.
https://www.youtube.com/watch?v=2rwFK5_Viqo

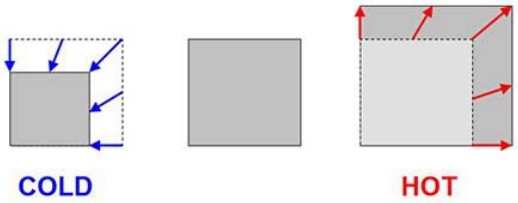
Hot water **evaporates** and the steam rises.
It comes into contact with the cold cling film with ice and it **condenses**.
The water then drops down as **precipitation** and is collected in the smaller beaker.



Particle Theory - Air Pressure

Complete the sentences using the word bank:

thermometer	faster	contracts	closer	substance	cooled

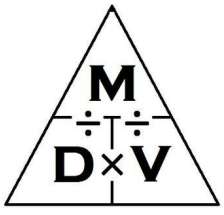


When a _____ is heated, the particles move _____ causing it to _____.

When a substance is _____, the particles move _____ to each other. The substance _____.

This describes how a _____ works.

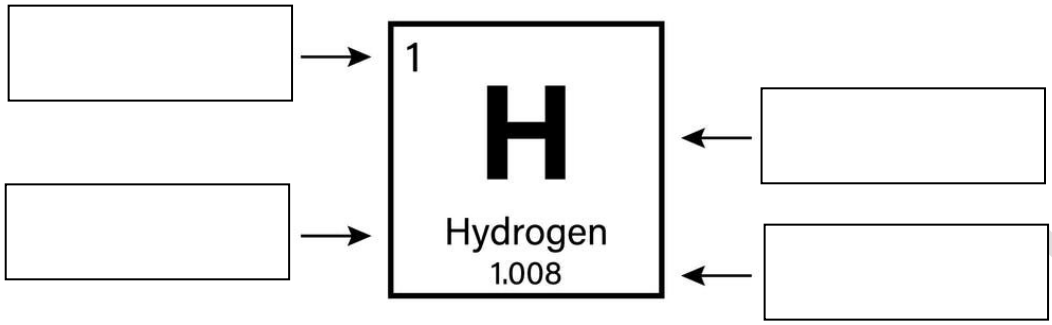
The **density** of an object is its mass per unit volume.
density = mass / volume
A sugar cube has a **mass** of 16g.
Each side of the cube is 2cm in length.
(Remember: **volume** = length x width x height)
Calculate the **density** of the sugar cube:
_____



Chemistry - The Periodic Table

Use the Periodic Table on page 45 of the Longman Chemistry Textbook, Unit 2.2, Elements.

1. Label the parts of the hydrogen element: *name, atomic number, atomic weight, symbol*.



2. What are the symbols for the following elements?
   a) Magnesium _____
   b) Potassium _____
   c) Iron _____
   d) Copper _____

3. What are the names of the following elements?
   a) C _____
   b) Cl _____
   c) Au _____
   d) Sr _____

4. What are the atomic numbers of the following elements?
   a) Calcium _____
   b) Iron _____
   c) Gold _____
   d) Uranium _____

5. Which element is used to kill bacteria in swimming pools? _____

6. Which element is used to blow up party balloons? _____

7. Which element is often used in batteries? _____

8. Which element is commonly used in toothpaste? _____

9. Which two elements are commonly used to make jewellery? _____

10. Which element is used to clean cuts and wounds? _____

Go to Longman Chemistry Textbook, Unit 2.3, Elements, compounds and mixtures Page 52. Answer Q4.

Chemistry - Chemical Reactions

Chemical reactions are when materials are changed and **new** substances are made.

Write 3 examples of chemical reactions:

a) _____

b) _____

c) _____

Complete the sentence using the word bank:

colour	heat	gas

We know a chemical reaction is happening when there is _____ released or taken in, _____ formation and a _____ change.

Chemical equation:

$$C + O_2 \rightarrow CO_2$$

a) Write this chemical equation in **words**: _____

b) The reactants are the starting materials in a reaction. What are the reactants in this reaction?

_____

c) The products are the substances made in a reaction. What is the product of this reaction?

_____

The Science Behind the Colours of Fireworks

Did you know that fireworks were different colours because of the minerals and **elements** present? Use the guide to colour the fireworks!