

# Physical & Chemical Change Revision

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Year 8 Chemical Sciences

## Changes?

## Physical Change

- NO new substance is produced during change



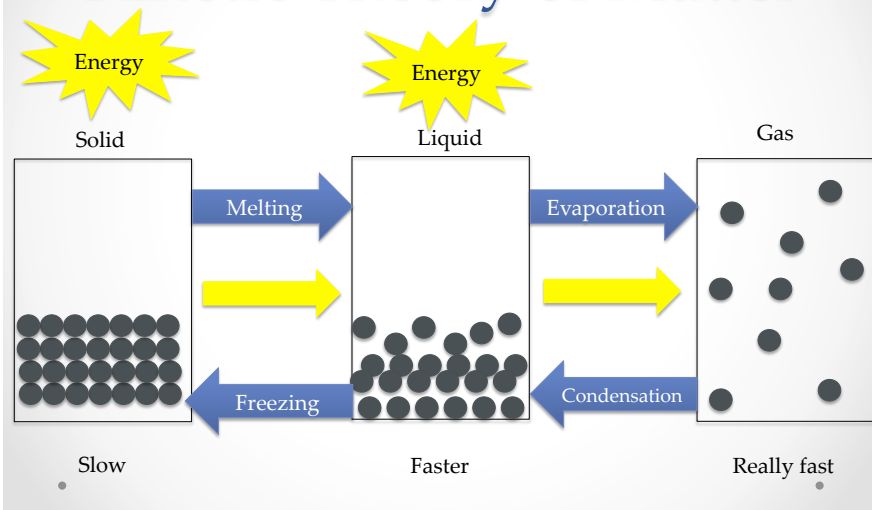
What will happen to these different colours in time?

## Types of physical changes

- Shape
- Expansion & contraction
- State
  - Melting-freezing
  - Evaporation and condensation
  - Sublimation
- Dissolving
  - Solute
  - Solvent
  - Solution



# Kinetic Theory of Matter



## Q1 Revision Sheet

# Chemical change

- A NEW substance is formed



# Types of Chemical Changes

- Permanent colour change

- Match burning
- Rusting iron
- Leaves changing colour
- Bruise



- Gas given off

- Alka-Seltzer in water
- Fizzy drinks
- Smell of burning food



- Precipitate forms

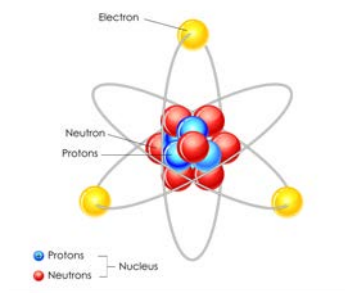
- Solutions together can form a solid
- Stalagmites/Stalactite

- Energy is produced or absorbed

- Gas burning in a Bunsen burner



# Smallest Particles = Atoms



Make up Elements

# Elements

- Substances made up of ONE type of atom



Copper



Copper atoms



Copper atoms

# Metals & Non-metals

A periodic table of elements where each element's box is color-coded to indicate its classification: blue for metals, green for metalloids, and yellow for nonmetals. The table includes element symbols and atomic numbers. A legend at the top identifies the color coding: Metal (blue), Metalloid (green), and Nonmetal (yellow).

# Q2 Revision Sheet

# The Periodic Table

1	Period 1																18
2	G	Period 2														G	18
3	r	Period 3														r	18
4	o															o	18
5	u															u	18
6	p															p	18
7	1															1	18
8																	18
9																	18
10																	18
11																	18
12																	18
13																	18
14																	18
15																	18
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18																	18

Periods = Same number of atomic electron orbitals  
Groups = Same number of electrons in outer most orbital

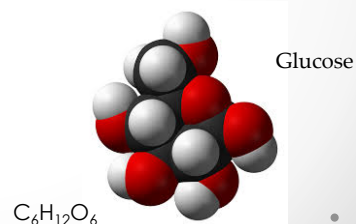
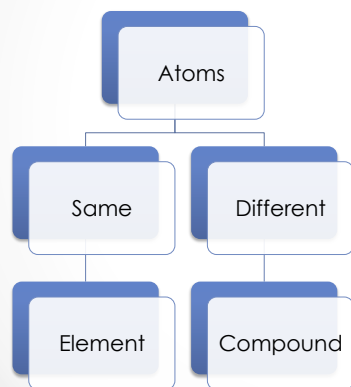
## Q3 Revision Sheet

Periodic Table of the Elements

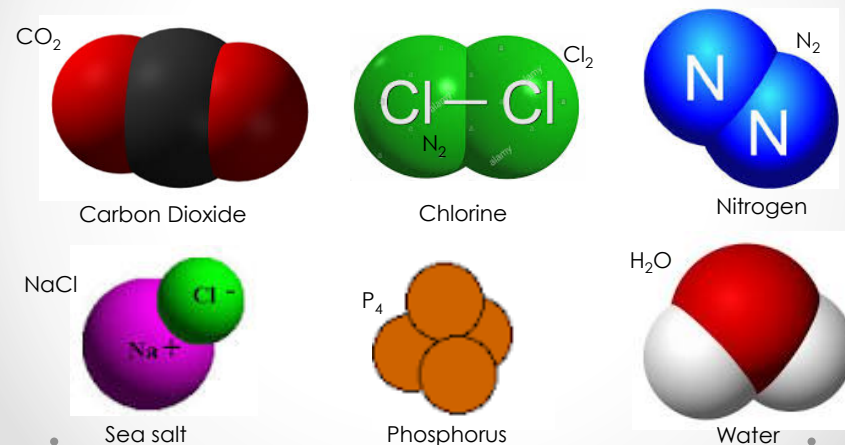
	1	Periodic Table of the Elements																18							
1	H	2											13		14	C	15	N	16	O	17		18	He	
2																									
3		Mg	3	4	5	6	7	8	9	10	11	12	Al					S							
4	K	Ca						Fe		Ni	Cu	Zn													
5																									
6			*																			Br			
7																						I			
			**																						

# Molecules

- Two or more atoms chemically joined



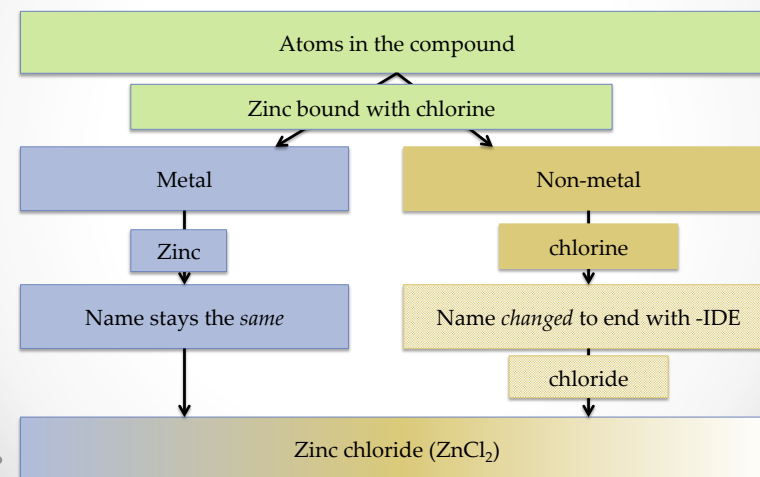
# Molecules



## Q5 Revision Sheet

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## Naming Ionic Compounds



## Q6 Revision Sheet

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## Mixtures

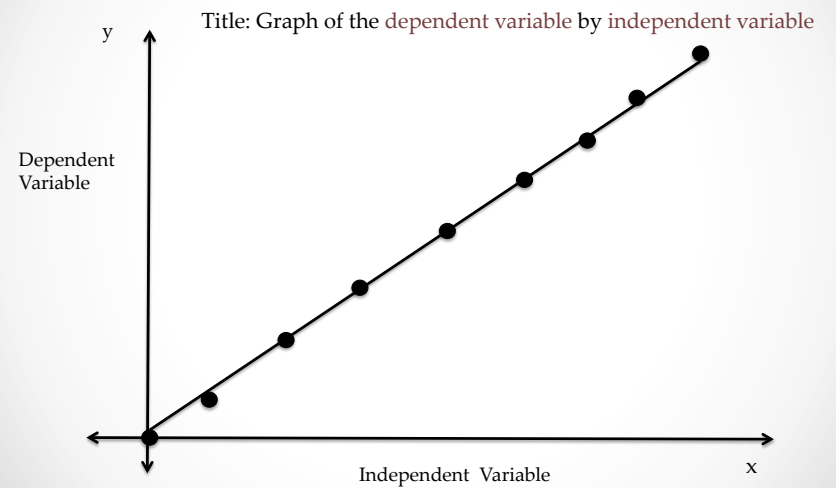
- Made from different substances that are **NOT chemically joined**
- Each substance keeps its own properties
- Each substance is easily separated from mixture



## Q7 Revision Sheet

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## Graphing



# Q8 Revision Sheet

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Complete the graphing activity and Activity 14 at home

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