

8F The Periodic Table- Revision Worksheet

Describe what **atoms** are.

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Describe what **John Dalton** wrote about his atomic theory.

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Define the term **physical properties**.

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Add some examples of **physical properties** to the spider-diagram below:



Describe the **physical properties** of any **element**.

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Use your **periodic table** to find the **symbols** for the following **elements**:

- | | |
|--------|---------|
| Iron | Zinc |
| Gold | Oxygen |
| Carbon | Mercury |

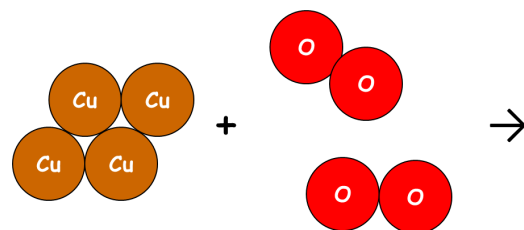
Explain why having internationally agreed upon **symbols** for **elements** is important.

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Define the term **chemical properties**.

.....

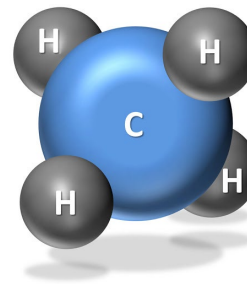
Complete the diagram below to show what happens when **copper reacts** with **oxygen**.



Calculate the **mass** of **zinc oxide** produced 10g of **zinc** is **reacted** with 3g of **oxygen**.

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State the **chemical formulae** for the **compound** below and which **elements** are present.



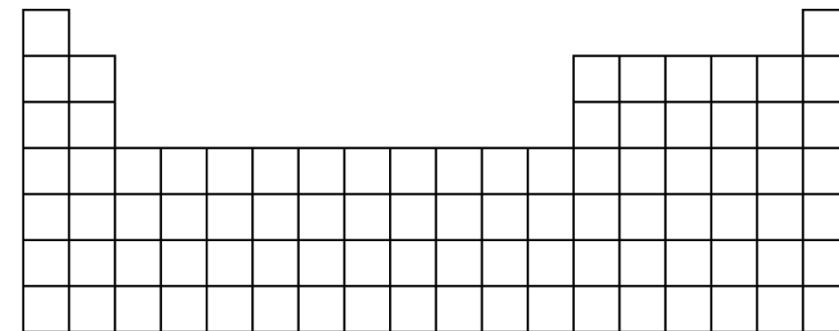
Complete the table below by describing the work each **scientist** did to arrange the **elements**:

Johann Döbereiner	
John Newlands	
Dmitri Mendeleev	

Describe how **Mendeleev** made sure **elements** fit into **groups** with similar **properties**.

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On the **periodic table** below label where the **alkali metals**, **halogens** and **noble gases** can be found:



Explain what happens to a substances **temperature** when it is **melting**.

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Define the following words:

Trend	
Group	
Period	

Describe the **trend in melting points** as you move down the **group 1 elements**.

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Rate the following on how well you think you can do them:



I can...

- Describe Dalton's atomic theory.
- Describe elements using physical properties.
- Write and identify the chemical symbols for elements.
- Explain the difference between physical and chemical changes and properties.
- Use atomic theory to explain what happens during chemical reactions.
- Write and interpret chemical formulae.
- Identify and write single-clause sentences.
- Link ideas clearly in sentences by using coordinating and subordinating conjunctions.
- Use the periodic table to find elements with similar properties.
- Describe some typical properties of alkali metals, halogens and noble gases.
- Describe how the periodic table is arranged.
- Explain what is meant by an anomalous result (outlier).
- Identify anomalous results and the range of readings in data.
- Suggest reasons for anomalous results / outliers.
- Explain melting, freezing and boiling points and use them to predict the state of a substance.
- Describe and identify trends in physical properties within the periodic table.
- Identify metals and non-metals by their properties and position in the periodic table.
- Describe the reactions of some elements with water and oxygen.
- Identify trends and make predictions about chemical properties using the periodic table.

Complete the table by adding in the common **properties of metals and non-metals**:

Metals	Non-Metals

Describe the **physical properties** of the **alkali metals**.

.....

.....

Describe the **chemical properties** of the **alkali metals**.

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Complete the following **word equations**:

Potassium + Water →

Lithium + Water →

Potassium + Oxygen →

Phosphorus + Oxygen →

Describe the **reaction of potassium and water**.

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Describe the **trend in oxides** formed by **elements**.

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Describe the **trend in reactivity** as you move down the **alkali metals group**.

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