**Lesson 3 - An Introduction to the Periodic Table**



* + I can explain that the elements in the Periodic Table are organised using their atomic number
	+ I can state that each element has its own unique atomic symbol

The **Periodic Table** is where we can find all the **elements** that make up all life and all materials.

Definition: **Element**

An element is a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ that contains only \_\_\_\_\_\_\_\_\_\_\_ type of \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

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**Element Names and Symbols**

Each of the elements has a name and also a quick way of identifying the element – its symbol. These also allow scientists from different countries who speak different languages to co-operate in scientific research using the same symbols

**Writing an Elements Symbol**

**Rule 1**: The first letter of a symbol is always a capital letter

**Rule 2**: The second letter of a symbol is always a lower-case letter

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**Activity 3.2: Element Soup**

Using your Periodic Table, correctly match each element name to its correct symbol.

|  |  |
| --- | --- |
| Element Name | Atomic Symbol |
|  | Mg |
|  | H |
|  | Co |
|  | S |
|  | K |
|  | Ra |
|  | Xe |
|  | Mn |
|  | P |
|  | Sn |
|  | Au |
|  | C |
|  | Cl |

**Activity 3.3: Elements Named After Countries**

Using your Periodic Table, look for four elements that are named after countries and fill your results in the table below.

|  |  |  |
| --- | --- | --- |
| Element Name | Atomic Symbol | Country |
|  | Fr |  |
|  | Po |  |
|  |  | Germany |
|  |  | America |

**Activity 3.4: Elements Named After Famous People**

Using your Periodic Table, look for four elements that are named after famous people and fill your results in the table below.

|  |  |  |
| --- | --- | --- |
| Element Name | Atomic Symbol | Person |
|  | Md |  |
|  |  | Marie/Pierre Curie |
|  | Es |  |
|  |  | Alfred Nobel |

**Activity 3.5: Elements Named After Planets**

Using your Periodic Table, look for four elements that are named after planets and fill your results in the table below.

|  |  |  |
| --- | --- | --- |
| Element Name | Atomic Symbol | Planet |
|  |  | Pluto |
|  | Hg |  |
|  | Np |  |
|  |  | Uranus |

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**Activity 3.6: Odd Symbols**

Not all elements have symbols that obviously belong to them.

Some are named after other languages and some have interesting stories behind the name.

Use your Periodic Table to complete the table below and find the corresponding element name and symbol.

|  |  |
| --- | --- |
| Element Name | Symbol |
| Iron |  |
|  | K |
| Sodium |  |
|  | Cu |
| Gold |  |
|  | Ag |

**Activity 3.7: Element Emojis**

Emoji symbols will be shown to represent different elements.

Use the sounds of the emojis to try and work out the full name of the element.

Write your answers in the space bellow:

1.
2.
3.
4.
5.
6.
7.
8.
9.
10.
11.

**Homework Task**

For homework your task is to research the element strontium.

You can display your research as a poster, newspaper article, comic book, essay or spider diagram.

You must include:

* When was strontium discovered?
* Where was strontium discovered?
* Who discovered strontium?
* How did they discover strontium?
* At least 3 interesting facts about strontium