

The Periodic Table

Lesson 13 - Group 0

Science

Chemistry - Key Stage 3

Miss Willett

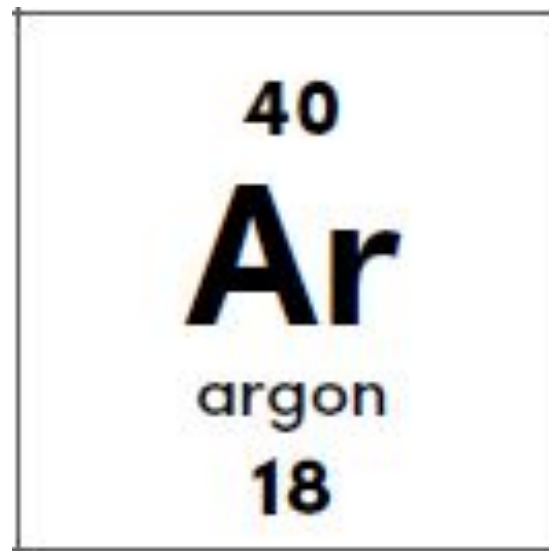


What have you learnt already?

1. What charge does a proton have?
2. How does reactivity change down group 1?
3. How does reactivity change down group 7?



Atomic structure - your turn!



Source: Oak



Atomic structure Group 0

Answer the questions:

- 1) What is the other name for Group 0 elements?
- 2) What is special about the atomic structure of Group 0 elements?



Atomic structure Group 0

Answer the questions:

3) Explain why Group 0 elements are **inert**.

4) Draw the atomic structures of helium and argon. Use this to explain why the Group is called '0', not '8'.



Spot the mistake!

Boiling points increase down group 0, because atoms get smaller.

Densities increase down the group, but all group 0 are less dense than air.

All noble gases are odourless and tasteless, but they are beautiful colours!



Trends and properties of group 0

Complete the paragraph below:

- There are a few _____ in group 0. For example, the gases _____ in boiling point down the group. This is due to atoms getting _____. Density also _____ down the group. All the noble gases are _____, _____ and tasteless.



Match the element to its use!

Helium

Light-up signs

Neon

Lasers

Argon

Balloons, airships

Krypton

Lightbulbs, welding



Match the property to its use!

High density

Low density

Produces red colour

Glow with electricity

Light-up signs

Lasers

Balloons, airships

Lightbulbs, welding



Why are the gases used for different uses?

Explain why the following elements are suited to their use:

- Helium is used for..... because it is..
- Neon is used for because.....
- Argon is used....
- Krypton....

