

# The Periodic Table

## Lesson 12 - Group 7 Displacement

Science

Chemistry - Key Stage 3

Miss Willett



# What have you learnt already?

1. Where are the alkali metals on the periodic table?
2. Where are the halogens on the periodic table?
3. What is the charge of an electron?



# What is a displacement reaction?

**Write a definition for a displacement reaction:**

**Think: REACTIVE, PLACE, COMPOUND**



# True or false?

Chlorine is the most reactive halogen

The nucleus of an atom is negative

Electrons are easier to gain for small atoms

Smaller halogens are more reactive



# Group 7 reactivity

## Explain why reactivity decreases down Group 7:

Atoms at the top of the group are..

The nucleus is...

The atom is trying to..

So the closer the outer shell is to..

### ***Think:***

Charge of nucleus?

Lose/gain electrons? Smaller / bigger atoms?



**Correct me!**

**Find my three mistakes this equation:**

Iodine + sodium fluoride = sodium iodide + fluoride



# Reactions of group 7 + group 1

**Complete the following word equations:**

- Bromine + calcium iodide → \_\_\_\_\_ + \_\_\_\_\_
- Chlorine + sodium bromide → \_\_\_\_\_ + \_\_\_\_\_
- Lithium chloride + \_\_\_\_\_ → \_\_\_\_\_ fluoride + \_\_\_\_\_
- \_\_\_\_\_ + bromine → caesium \_\_\_\_\_ + iodine
- \_\_\_\_\_ + \_\_\_\_\_ → sodium fluoride + bromine



# Finishing off.. Predict which reactions will take place (✓ or x)

Write the products in the box where



	Chlorine	Bromine	Iodine
Potassium chloride			
Potassium bromide			
Potassium iodide			

