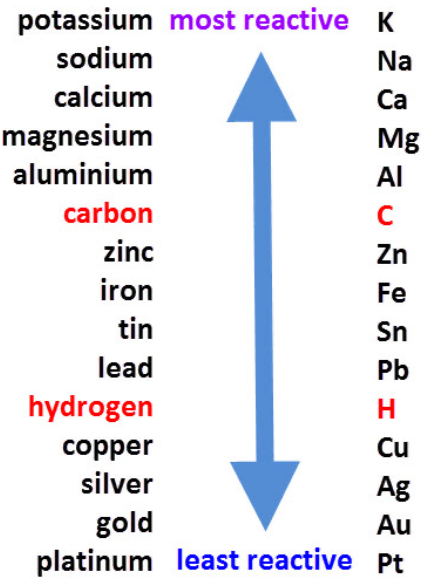
Displacement Reactions



Part A

Can you complete the following displacement reactions, for each write down the TWO products formed. 🌶

If you can, leave a small gap for each one, so you can add the second part Underneath

Example

Copper into Silver Nitrate → Silver Metal and Copper Nitrate

1. Iron into Silver Nitrate
2. Potassium into Silver Nitrate
3. Calcium into Tin Nitrate

4. Zinc into Tin Chloride
5. Magnesium into Copper Sulphate
6. Lead into Copper Nitrate

7. Lead into Iron Chloride
8. Sodium into Potassium Sulphate
9. Silver into Tin Nitrate

substance	Name
Cl	Chloride ion
Br	Bromide ion
O	Oxide ion
CO_3	Carbonate ion
OH	Hydroxide ion
SO_4	Sulfate ion
NO_3	Nitrate ion

Part B

Can you use the symbols to write out the reactions above again in symbol form? 🌶🌶

Example

$$Cu + AgNO_3 \rightarrow Ag + CuNO_3$$

Part C

Explainer Questions

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10. Explain why when an iron nail is placed into copper sulphate solution, the copper sulphate solution changes colour and copper appears on the surface of the nail.
11. Explain what happens when another iron nail is placed into aluminium nitrate solution.

Bonus Questions

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12. Hydrogen and Carbon aren't metals. Can you find out what they are and why they are included in the reactivity series?

13. Using the answer above, can you suggest why copper pipes are better than lead pipes for carrying water to our homes?