

9Fd – Displacement

1. Answer the following questions.

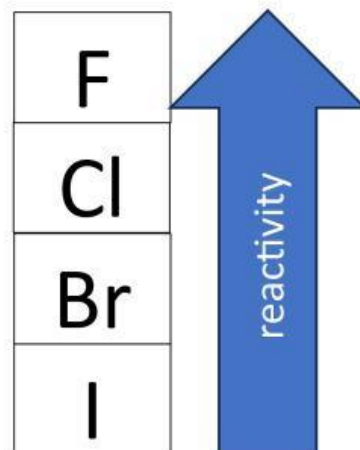
- a. Aluminium + Iron oxide $\rightarrow$ +
- b. State the type of reaction that occurs.

2. The diagram shows the reactivity series of the halogens.

- a. To extract bromine from sodium bromide, another halogen is used.
Suggest which halogen is used.

- b. Complete the equation for this reaction.

+ sodium bromide $\rightarrow$ bromine +



3. Four metals, W, X, Y and Z, were placed in solutions of the sulfates of these same four metals. They were observed to see whether a reaction took place. The results are shown in the table.

Metal sulfate solution	Metal W	Metal X	Metal Y	Metal Z
W sulfate		reaction	no reaction	reaction
X sulfate	no reaction		no reaction	no reaction
Y sulfate	reaction	reaction		reaction
Z sulfate	no reaction	reaction	no reaction	

Use the data to put the metals into a reactivity series, with the most reactive metals first.

Nickname:

Date:

Class

4. The table shows a 'confidence grid'. Choose "Yes" in one box for each statement in the table.

Statement	Definitely correct	Might be correct	Might be wrong	Definitely wrong
In a compound, less reactive metals always displace more reactive metals				
A spark is always needed to start a displacement reaction.				
Displacement reactions only work one way.				
Bromine is extracted from sea water using chlorine.				