

Trends and patterns in the reactivity series (CR7) – Revision Checklist

I can...	Lesson	Revised
Describe the reaction between metals and oxygen.	CR7 LE2	
Define oxidation in terms of gain of oxygen.	CR7 LE2	
Define reduction in terms of loss of oxygen.	CR7 LE2	
Identify oxidation and reduction in given reactions.	CR7 LE2	
Identify substances oxidised or reduced in terms of oxygen transfer.	CR7 LE2	
(HT) Define oxidation in terms of loss of electrons.	CR7 LE4	
(HT) Define reduction in terms of gain of electrons.	CR7 LE4	
(HT) Identify oxidation and reduction in terms of electron transfer.	CR7 LE4	
(HT) Identify oxidised and reduced species in symbol and half equations.	CR7 LE4	
(HT) Write ionic equations for displacement reactions.	CR7 LE4	
Define reactivity in terms of metal atoms forming positive ions.	CR7 LE1	
State what the reactivity series shows.	CR7 LE1	
Recall the order of potassium, sodium, lithium, calcium, magnesium, zinc, iron and copper in the reactivity series.	CR7 LE1	
Recognise that hydrogen and carbon are included in the reactivity series.	CR7 LE1	
Describe the reactions of potassium with water and dilute acids.	CR7 LE3	
Describe the reactions of sodium with water and dilute acids.	CR7 LE3	
Describe the reactions of lithium with water and dilute acids.	CR7 LE3	
Describe the reactions of calcium with water and dilute acids.	CR7 LE3	
Describe the reactions of magnesium with water and dilute acids.	CR7 LE3	
Describe the reactions of zinc with water and dilute acids.	CR7 LE3	
Describe the reactions of iron with water and dilute acids.	CR7 LE3	
Describe the reactions of copper with water and dilute acids.	CR7 LE3	
Explain how reactions with water and dilute acids show relative reactivity.	CR7 LE3	
Deduce an order of reactivity from experimental results.	CR7 LE1	
Explain displacement reactions using the reactivity series.	CR7 LE1	
Predict the outcome of displacement reactions.	CR7 LE1	
State why unreactive metals are found as native metals.	CR7 LE2	
Explain why most metals are found as compounds.	CR7 LE2	
Describe how metals less reactive than carbon are extracted from oxides.	CR7 LE2	
Define reduction in the context of metal extraction.	CR7 LE2	
Identify oxidation and reduction in extraction reactions.	CR7 LE2	
Interpret information about metal extraction processes.	CR7 LE2	
Describe the general reaction between acids and metals.	CR7 LE3	
Identify the products of metal and acid reactions.	CR7 LE3	
(HT) Explain metal and acid reactions as redox reactions.	CR7 LE4	
(HT) Identify oxidised and reduced species in metal and acid reactions.	CR7 LE4	
(HT) Apply knowledge to reactions of magnesium, zinc and iron with hydrochloric and sulfuric acids.	CR7 LE4	
Describe neutralisation reactions between acids and alkalis.	CR7 LE5	
Describe reactions between acids and bases.	CR7 LE5	
Describe reactions between acids and metal carbonates.	CR7 LE7	
Predict products of acid reactions with metals, bases, alkalis and carbonates.	CR7 LE7	
Identify the salt formed from a given acid.	CR7 LE7	
Identify the salt formed from a given base, alkali or carbonate.	CR7 LE7	
Deduce the formula of a salt from the formulae of common ions.	CR7 LE7	
Describe how to make a soluble salt from an acid and an insoluble solid.	CR7 LE6	
Describe filtration in the preparation of salts.	CR7 LE6	

Describe crystallisation in the preparation of salts.	CR7 LE6	
Describe how to produce a pure, dry sample of a named soluble salt.	CR7 LE6	
State what ions acids produce in aqueous solution.	CR7 LE8	
State what ions alkalis produce in aqueous solution.	CR7 LE8	
Describe the pH scale.	CR7 LE8	
Identify neutral solutions using the pH scale.	CR7 LE8	
Identify acidic and alkaline solutions using pH values.	CR7 LE8	
Describe how universal indicator is used to measure approximate pH.	CR7 LE8	
Describe how a pH probe is used to measure pH.	CR7 LE8	
Describe neutralisation in terms of reacting ions.	CR7 LE8	
Represent neutralisation using an ionic equation.	CR7 LE8	
(HT) Define a strong acid and give examples.	CR7 LE9	
(HT) Define a weak acid and give examples.	CR7 LE9	
(HT) Compare strong and weak acids in terms of ionisation.	CR7 LE9	
(HT) Compare dilute and concentrated acids in terms of amount of substance.	CR7 LE9	
(HT) Explain the relationship between acid strength and pH for equal concentrations.	CR7 LE9	
(HT) Explain how hydrogen ion concentration changes as pH changes.	CR7 LE9	
(HT) Describe neutrality in terms of hydrogen ion concentration.	CR7 LE9	
(HT) Describe relative acidity using pH values.	CR7 LE9	