

Metals and Acids – C3

1	What is used to measure acid/ alkali strength	pH scale
2	What is an alkali?	Alkalis are bases that dissolve in water
3	What is a base?	A substance that neutralises an acid
4	What pH range are acids?	pH 1-6
5	What pH range are alkalis?	pH 8 -14
6	What is a chemical that changes colour in different pH?	indicator
7	What colour does universal indicator turn when added to acids?	Strong acid = Red Medium strong acid = Orange Weak acid = Yellow
8	What colour does universal indicator turn when added to alkalis?	Weak alkali = Blue Strong alkali = Purple
9	What colour does universal indicator turn when added to a neutral solution?	Green
10	What is the pH range of an acid?	1-6
11	What is the pH range of an alkaline solution?	8-14
12	What do we call the reaction between an acid and an alkali?	Neutralisation
13	What is the pH of a neutral solution?	7
14	Give an example of a strong acid?	Hydrochloric acid, Sulfuric acid, Nitric acid
15	What sorts of chemicals are bases?	Oxides and Hydroxides
16	Give 3 examples of alkalis?	soap, baking soda, toothpaste
17	Name 5 metals	Iron, gold, silver, magnesium, zinc, copper
18	Name 5 non metals	Oxygen, nitrogen, carbon, chlorine, fluorine, sulphur
19	What is a property?	The way something behaves, e.g. colour, magnetic
20	Give 3 properties of Metals	Shiny, good conductors of electricity and heat, malleable and ductile, and usually solid at room temperature.
21	Give 3 properties of Non-Metals	Dull, poor conductors of electricity and heat, brittle and usually solid or gaseous at room temperature

22	Where are non-metals found on the periodic table?	Right hand side
23	What is the general word equation for an acid + metal	Metal + acid \rightarrow Salt + Hydrogen
24	Name the salt formed by reacting a metal with Nitric acid	Nitrate
25	Name the salt formed by reacting a metal with Hydrochloric acid	Chloride
26	Name the salt formed by reacting a metal with Sulphuric acid	Sulphate
27	What is the general word equation for a metal + water	Metal + Water \rightarrow Metal Hydroxide + Hydrogen
28	What is the word equation for Lithium reacting with water?	Lithium + Water \rightarrow Lithium hydroxide + Hydrogen
29	What is the general word equation for an acid + metal	Metal + Oxygen \rightarrow Metal Oxide
30	Write a word equation for magnesium reacting with oxygen	Magnesium + Oxygen \rightarrow Magnesium Oxide
31	What is corrosion?	A reaction between a metal and oxygen. The metal weakens and becomes a metal oxide
32	What is rusting?	The corrosion of Iron
33	Write the word equation for the rusting of Iron	Iron + Oxygen \rightarrow Iron Oxide
34	What is the reactivity series?	A list of metals in order of how reactive they are
35	What is a displacement reaction?	Where a more reactive element takes the place of a less reactive element in a compound
36	What is a metal ore?	Rock containing a metal. Ores are usually metal oxides
37	Name 2 methods for extracting metals from ores	Reduction with carbon and Electrolysis
38	Which metals can be extracted from ores by reduction with carbon?	Metals less reactive than Carbon
39	When should electrolysis be used instead of reduction with Carbon?	When metals in the ore are more reactive than Carbon