Acid and Base Reactions – Year 9 Chemistry Worksheet

Multiple Choice Questions

1. What is produced when an acid reacts with a base?
A. Salt and water
B. Oxygen and water
C. Carbon dioxide and salt
D. Hydrogen gas

2. Which of the following is a common indicator used to test acids and bases?
A. Sand
B. Litmus
C. Sodium chloride
D. Magnesium

3. Acids have a pH that is:
A. Exactly 7
B. Greater than 7
C. Less than 7
D. Always 14

4. When hydrochloric acid reacts with sodium hydroxide, the salt formed is:
A. Sodium carbonate
B. Sodium chloride
C. Sodium sulfate
D. Sodium nitrate

5. A base feels _____ when touched.
A. Rough
B. Slippery
C. Grainy
D. Sticky

Matching Questions

Match Column A to Column B.

Column A
1. Acid
2. Base
3. Neutralization
4. Indicator
5. pH 7

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Column B
A. Turns red litmus blue
B. Produces H^+ ions in solution
C. pH less than 7
D. Substance that changes colour in acids/bases
E. Reaction of acid + base → salt + water
F. Neutral

Fill in the Blank Questions

1. An acid reacts with a base to produce _____ and _____.

2. A solution with a pH less than 7 is called an _____.

3. A base releases _____ ions (OH^-) in water.

4. Litmus paper turns _____ in acids.

5. The reaction between hydrochloric acid and sodium hydroxide forms _____ and water.

Short Answer Questions (1–2 word answers)

1. What ion do acids produce in water? _____

2. What ion do bases produce in water? _____

3. What is the name of the reaction between an acid and a base? _____

4. What substance is formed (besides salt) in all acid–base reactions? _____

5. What is the pH value of a neutral substance? _____

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