

Page 32

1. (a) Winston used universal indicator to test hydrochloric acid. What colour did the indicator turn?
 - Red.
2. (b) What pH value would the hydrochloric acid likely have?
 - Around 1-2.
3. (c) Why did the mixture fizz when Winston added magnesium carbonate to hydrochloric acid?
 - Carbon dioxide gas was produced.
4. (d) Why did the fizzing stop when more magnesium carbonate was added?
 - All the acid had been neutralised.
5. (e) When magnesium carbonate reacts with hydrochloric acid, what are the two products?
 - Magnesium chloride and carbon dioxide.
6. (f) Why is hydrochloric acid needed in the stomach?
 - It helps digest food and kills bacteria.

Page 34

1. (a) What are the names of two fossil fuels?
 - Coal and oil.
2. (b) Complete the word equation for the reaction between sulphur and oxygen:
 - Sulphur + Oxygen → Sulphur dioxide.
3. (c) What effect does an alkali have on the pH of an acidic lake?
 - It increases the pH, making the lake less acidic.
4. (d) When calcium hydroxide reacts with sulphuric acid, what is the name of the salt formed?
 - Calcium sulphate.
5. (e) Why are leaves important for tree growth?
 - Leaves are needed for photosynthesis to produce food for the tree.

6. (f) What effect does acid rain have on buildings made of limestone?

- It reacts with the limestone, causing erosion and damage.

Page 36

1. (a) Give the name of one acidic liquid tested by Ramy.

- Lemonade.

2. (b) Give the name of one neutral liquid tested by Ramy.

- Water.

3. (c) Ramy dissolved some bicarbonate of soda in distilled water, producing an alkaline solution. What colour would the indicator turn?

- Blue.

4. (d) Ramy added lemon juice to the bicarbonate of soda solution. How could he tell that a gas was produced?

- Bubbles formed in the solution.

5. (e) What is the name of the reaction between an acid and an alkali?

- Neutralisation.



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