

# Revision 2

Chemistry - Key Stage 3

Chemical Reactions

Mrs Gibbs



## Fill in the missing words!

1. Neutralisation happens when an \_\_\_\_\_ reacts with an \_\_\_\_\_.
2. The products of a neutralisation reaction are a \_\_\_\_\_ and \_\_\_\_\_.
3. The general word equation to show neutralisation is:  
\_\_\_\_\_ + \_\_\_\_\_ → \_\_\_\_\_ + \_\_\_\_\_
4. An example of a neutralisation reaction in real life is using \_\_\_\_\_ to treat \_\_\_\_\_.

Word bank: antacids, alkali (x2), salt (x2), water (x2), indigestion, acid (x2)



## Match the salt to the acid

**Hydrochloric acid**

**Sulfuric acid**

**Nitric acid**

**Nitrate**

**Sulfate**

**Chloride**



# Independent task

1. Name the salts formed when:

a) Hydrochloric acid is reacted with lithium hydroxide: \_\_\_\_\_

b) Sulfuric acid is reacted with sodium hydroxide: \_\_\_\_\_

2. Complete the word equations for these neutralisation reactions:

a) Hydrochloric acid + potassium hydroxide → \_\_\_\_\_ chloride + \_\_\_\_\_

b) Sulfuric acid + \_\_\_\_\_ hydroxide → calcium \_\_\_\_\_ + water

c) \_\_\_\_\_ + lithium hydroxide → \_\_\_\_\_ nitrate + water

3. Write the word equation for when magnesium hydroxide is added to hydrochloric acid

4. Write the word equation for when sodium hydroxide is added to sulfuric acid.

5. Write the word equation for when zinc hydroxide is added to nitric acid



# Independent task

Which experiments are reproducible?

1)

Student	Volume of alkali (cm <sup>3</sup> )
Mary	12.2
Luke	12.4
Tarun	12.2

2)

Student	Temperature (°C)
Mary	72
Luke	79
Tarun	70

3)

Student	Time (s)
Mary	22.2
Luke	18.8
Tarun	27.5

4)

Student	Speed (m/s)
Mary	4.71
Luke	4.69
Tarun	4.73



# Independent task

**Hypothesis:** : 12 g antacid tablets are needed to neutralise 30 cm<sup>3</sup> of hydrochloric acid.

**Results:** Mass of tablets needed to neutralise 30 cm<sup>3</sup> of hydrochloric acid: **9.8 g**

## 1. Write a conclusion for these results.

Hints:

Does the result match the hypothesis?

How much more/less than the hypothesis was the result?

Can you offer an explanation?

## 2. Another student needed 6.7 g of tablets to neutralise the same volume of acid. Are the results reproducible? Explain your answer.

