Lesson 9 - Antacid Investigation - Planning

Chemistry - Key Stage 3

Chemical Reactions

Mrs Walsh

Antacids investigation: Variables

“Does the type of antacid affect the volume of acid that can be neutralised?”

- **Independent variable (the one that is changed by the scientist)**

  .....

- **Dependent variable (this is the outcome that is measured and recorded)**

  .....

- **Control variables (factors we must keep the same)**

  .....
  .....

Antacids investigation:
Method and risk assessment

“Does the type of antacid affect the volume of acid that can be neutralised?”

1. Fill .....
   .....
2. Weigh.....
   .....
3. Add.....
   .....
4. Stand .....
   .....
5. Open .....
   .....
6. Stop.....
   .....

Repeat all the steps above for .....
.....

“Does the type of antacid affect the volume of acid that can be neutralised?”

Stand the beaker on a white tile underneath the burette.	
Stop when the indicator turns green, showing a neutral solution and read the volume of acid from the burette.	
Repeat all the steps above using a different antacid, keeping the mass of antacid the same and the volume of water and universal indicator added the same.	
Fill the burette with hydrochloric acid to the 0cm^3 line. Wear goggles at all times to protect your eyes.	1
Add 3 drops of universal indicator to the beaker.	
Open the tap and add acid from the burette slowly, mixing all the time.	
Weigh out 1g of the first antacid and put it into a beaker. Add 5cm^3 water to the beaker and stir.	

“Does the type of antacid affect the volume of acid that can be neutralised?”

Risk Assessment

Hazard	Harm	Safety precaution
1M Hydrochloric acid is corrosive	Can ..... through tissue/skin	Use a ..... to transfer it to the burette. ..... it off immediately with plenty of ..... Wear ..... to protect the .....