Welcome to A Level Chemistry

In this session you will be working in small groups, carrying out a precise method of measuring that is used in chemistry.

Learning objectives:

Explanation

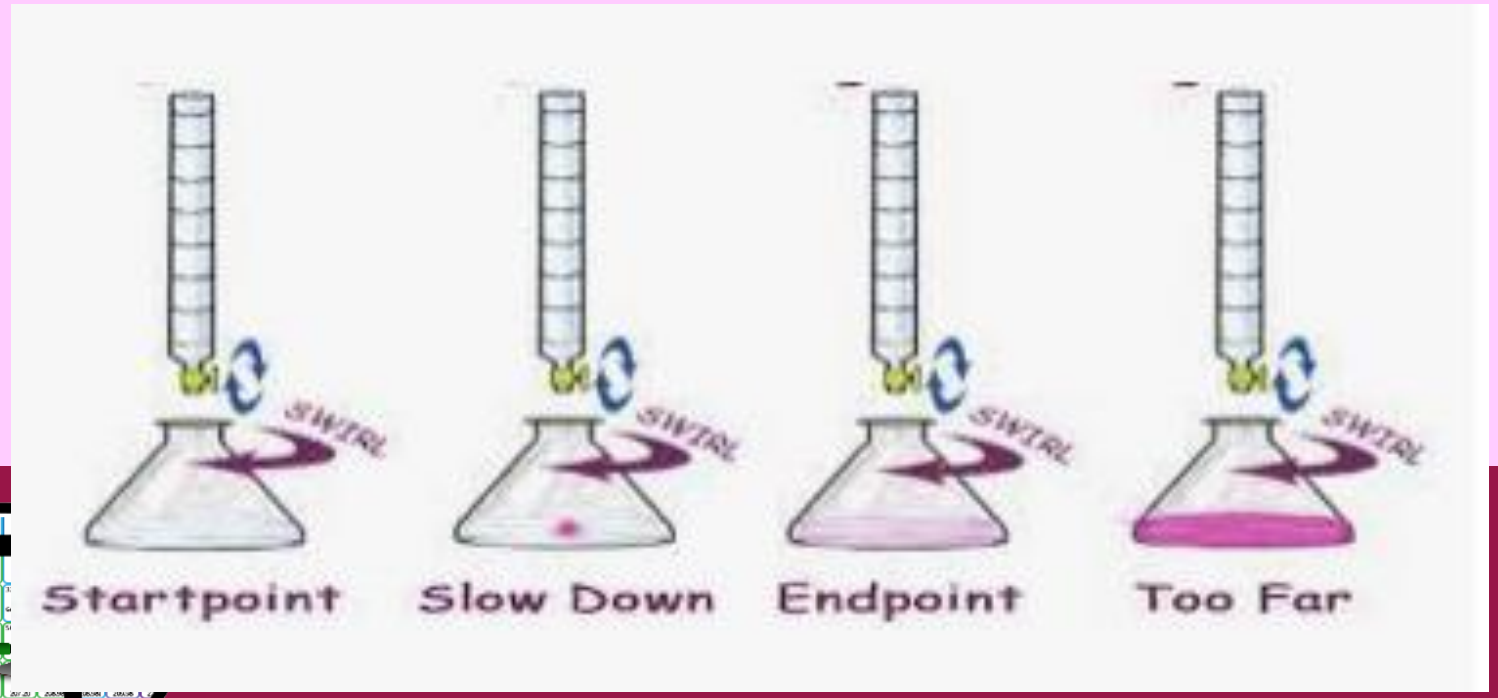
You may have looked at titrations to deduce the concentration of acids or bases.
Today you are going to use a titration to find out which sweet is the most sour.

The sweets that have the sourest taste have higher levels of acids to trigger the sour areas of the taste buds

Learning objectives:

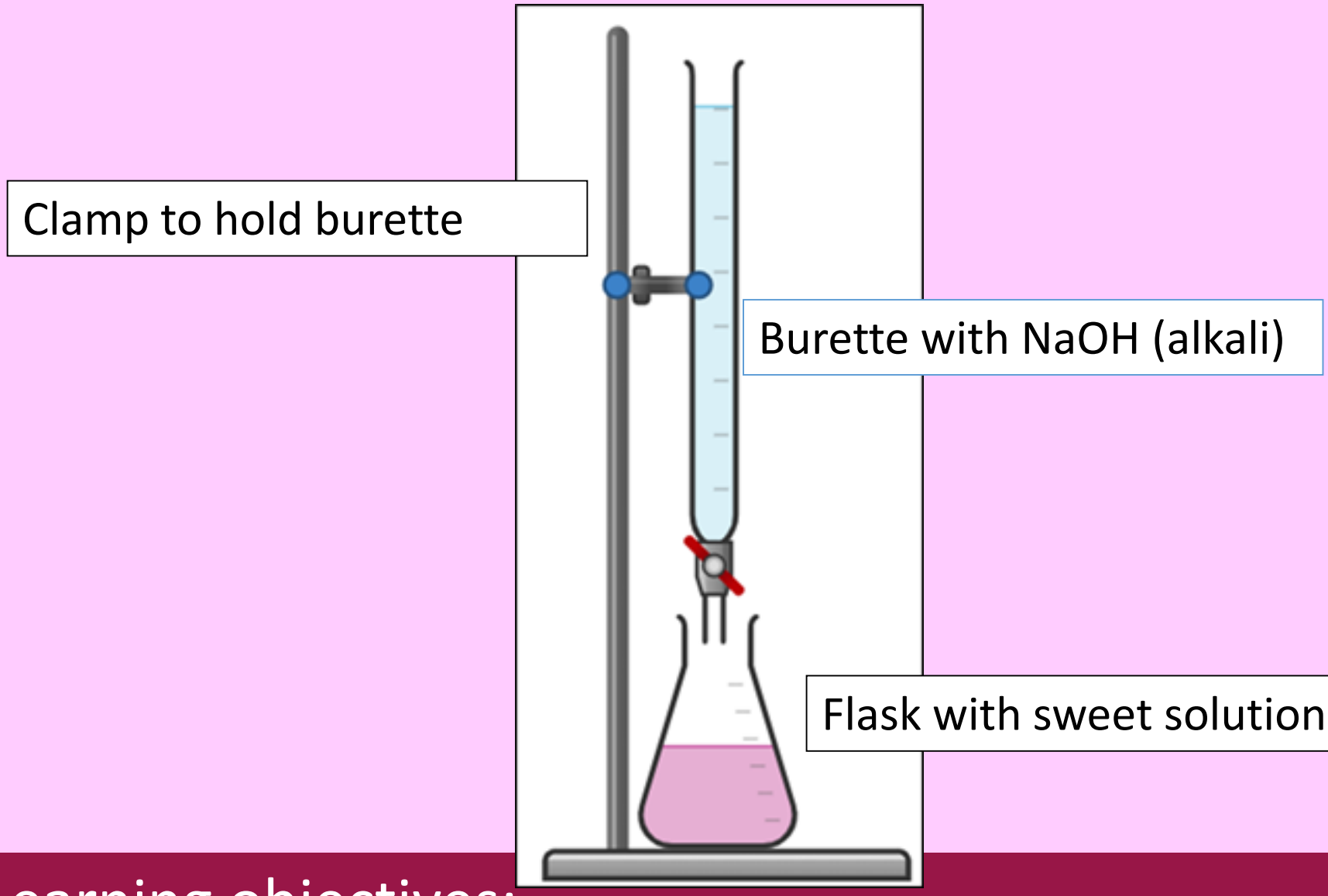
Explanation

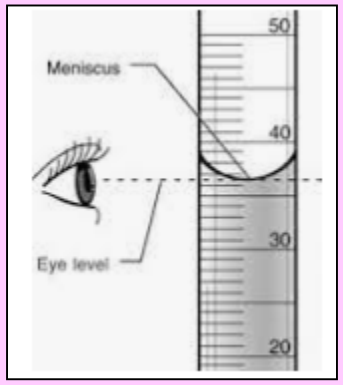
Titrations are carried out to get precise results.
How can you be precise with your equipment and technique.



You will work in groups of 2

We will collect group results to compare with each other.





Learning objectives:

Practical

Time Limit

Procedure: Complete the following to determine the "sourness" of each candy.

1) Take 3 sweets from one brand- same colour if possible. Cut each one in half and record the mass.
2) Add sweets to the conical flask
3) Fill flask with 50cm^3 of deionized water.
4) Place the flask in the water bath, for 2 minutes.
5) Stir the sweets around in the water for at least 30 seconds. Remove the sweets from the water.
6) Add in 3-4 drops of phenolphthalein indicator into the flask.
7) Record the initial volume of the NaOH in the burette in the data table below.
7) Slowly add the NaOH from the burette into the flask until the indicator changes into a ***permanent faint*** pink color.

Learning objectives:

Checking Progress

Calculations: Use the formula below to determine the strength of the acid in the candy (M_A).

$M_AV_A = M_BV_B$

HINT: The V_A for each will be 50 mL

Candy Data Table: Fill the data table in with the data for each.

Sample Letter	*Sweet (Brand of Sweet and colour)*	*Initial Volume of (NaOH) (in burette)*	*Final Volume of (NaOH) (in burette)*	*Volume of (NaOH) used*	*Molarity of acid in the candy*
A					
B					
C					

Learning objectives: