WorksheetCloud: MEMORANDUM
Grade 9
Subject: Natural Sciences
Topic: Introduction to Acids and Bases

Activity 1

List all the different ways you can group these items.
Any Learner's answers are correct. There are many ways you can group these substances
Solids vs liquids
Foods vs non-foods
Acids and bases

Activity 2

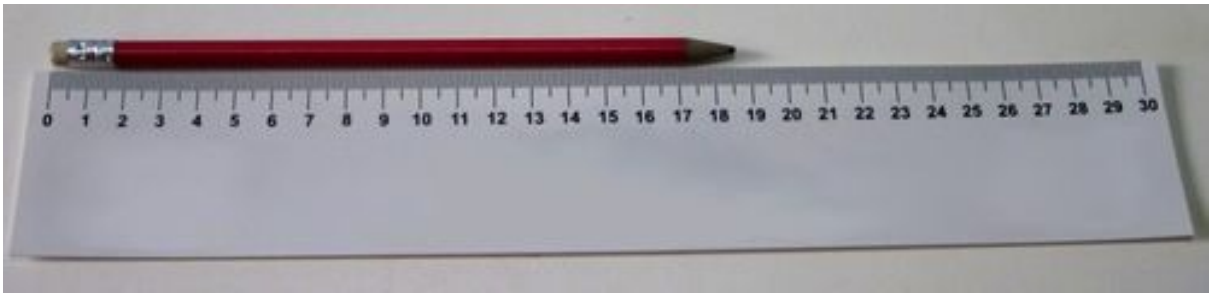
What would you measure with each of these instruments

	**Volume of liquid ml or cm^3**
	**Mass g**
	**Length/distance cm or m**
	**Temperature °C**
	**distance/length cm or mm**

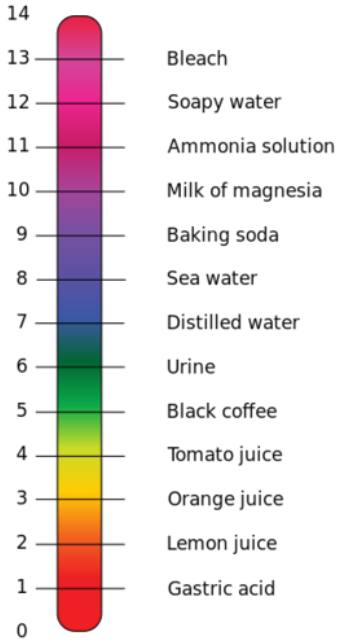
Activity 3

What is the measurement of this meancil?

10,5 cm



Activity 4

	Orange juice Vinegar Water Baking soda Bleach (jik) Citric acid - Vitamin C Cooking oil Soap Stomach acid Lemon juice Ammonia Solution table salt

4.1 Which of the substances in the table can you find on the pH scale above?

All except cooking oil
*** In chemistry, pH is a scale used to measure the relative acidity or basicity of an aqueous solution**

Vinegar
Vitamin C (found in tomatoes)
Table salt (sea water)

4.2 Write their names and approximate pH values in the table.

Name of substance	**Approximate pH**
Orange juice	3
Vinegar	4
Water	7
Baking soda	9
Bleach (jik)	13
Citric acid	4
Cooking oil	*****
Soap	12
Stomach	1
Lemon juice	2
Ammonia	11
Table salt solution	8

4.3 Sequence the above substances according to the colour change of the universal indicator, from the most acidic (darkest red) to the most basic (purple).

Stomach
Lemon juice
Orange juice
Citric acid
Vinegar
Water
Table salt
Baking soda
Ammonia
Soap
Bleach