



Name:
Class: 7
Neutralization

Subject: Science
Topic : 17

Acids and Bases are two different kinds of chemicals.

Acids:

- ❖ Acids have a sour taste.
 - **Lemon** juice tastes sour because it contains **citric acid**.
 - **Milk** turns sour when it spoils because **lactic acid** is formed.
- ❖ Acids can be mild(weak) or strong.



- ❖ Mild acids are acids found in some fruits, seeds and natural substances.
 - Tamarind and lemon are used to clean copper vessels because they contain acid.
 - The acid dissolves the green coating of basic copper carbonate present on the surface of a tarnished copper vessel and makes it shiny again.
- ❖ Strong acids can be dangerous.

❖ Acids are corrosive(ನಾಶಕಾರಿ).

- ❖
 - When lemon juice, tomato, apple juice and vinegar spill on the floor, it creates dull (white) spots. Because these substances contain acids.

Bases:

- ❖ Bases are also mild and strong.
- ❖ Weak bases can be found in substances like baking soda, window cleaner etc.



- ❖ Baking soda, also known as sodium bicarbonate, is widely used in baking.
- ❖ This is because it has leavening properties, meaning it causes dough to rise by producing carbon dioxide.





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At 4 'o' clock Nithya came back from her school.

Nithya: Amma, what did you prepare for snacks?

Mother: I prepared churmuri for you, come and have it.

Nithya: It is very tasty and also very spicy.

Mother: Do not eat too much. You will get acidity.

Nithya: I liked it so much. I will eat more. Don't worry, nothing will happen to me.



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After two hours

Nithya: Amma my stomach is hurting.

Mother: Drink this baking soda water. You will feel better.

They went to the doctor. He prescribed antacid (milk of magnesia). After having that she felt good.

Do you know why the doctor gave the antacid to Nithya?

Our stomach contains hydrochloric acid (HCl) which helps us to digest food. But too much acid in the stomach causes indigestion. Sometimes indigestion is painful. To relieve indigestion, we take an antacid. Antacid contains a base (ತಟಸ್ಥಗೊಳಿಸು) that neutralizes the effect of excessive acid.



+





Acid

+

Base

Neutralization



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1. Watch the video (ssvk.in - topic 17) and answer the following questions. And also read page number 55 (Neutralization in everyday life) in chapter “Acids, Bases and Salts”.

I. Why do we apply baking soda solution on bee sting?

II. What can we apply when wasp sting on us? And why?

2. Ram was suffering from acidity. Is it advisable to give him orange juice in this situation and why?
3. When soil becomes too basic, plants do not grow well in it. To improve its quality, what must be added to the soil?
4. The wastes of many factories contain acids. Why is it considered necessary to neutralize them before allowing the wasted to flow into water bodies?



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5. While playing in a park, a child was stung by a wasp. Some people suggested applying the paste of baking soda while others suggested lemon juice as remedy. Which remedy do you think is appropriate and why?

Let's do it

Blowing up a balloon with lemon juice.

Materials required

A small plastic bottles
Lemon juice
Baking soda
Balloons

Instructions

Stretch the balloon a bit first, this just makes it easier to inflate.

Procedure

- Fill your bottle about one quarter full with lemon juice.
- Use a funnel to put the baking soda into the neck of the balloon.
- Place the balloon over the top of the bottle.
- When you are ready tip the balloon up so the baking soda drops into the lemon juice.

Write your observation.