

Hey! I have some questions I need you to find answers for before we start the experiment today.

1. What's the liquid that doesn't have a taste or smell but takes colour of anything it's placed in. It has no smell, but feels so good to play with.
2. You're right! What is the chemical name for water?
3. What's the chemical formula of water.
4. How are the atoms in the chemical formula joined together?
5. Can we break those connections?

AIM

To find out if we can break the bonds between the Hydrogens and Oxygen in the water molecules.

THINGS YOU'LL NEED

Distilled water
Tap water
2 silver-colored push pins
9V battery
Small, clear plastic container
2 test tubes
Stopwatch
Baking soda
Table salt
Lemon
Dishwashing detergent

PROCEDURE

1. Insert the two push pins at the bottom of your clear plastic container so that they point up inside the container. Space them after measuring the width your battery so as the two pins are at the two terminals of the battery.
2. Now place the battery at the bottom of the container so that the two terminals align with the pins we inserted. You can use some other items like books etc to balance your container over the terminals.
3. Now it's time to fill the container with the distilled water.
4. Now add some baking soda to your apparatus and hold both the test tubes over the push-pins to collect the gas that's evolved.
5. You can now add tap water and see the difference in both the scenarios. What happens before you add your baking soda to the tap water?

Note your observations and find information based on your output from the experiment.

You can also change this solution and add other things like lemon juice, table salt, detergent powder, dish soap etc.

You need to take safety precautions before you get started with this experiment. Try to wear laboratory glasses, gloves, rubber shoes.