Science 9 - Mr. Tash



Before I start and before I ask my teacher	I have
☐ Put on PPE (Goggles, Lab Coat, Gloves)	
Read the entire lab thoroughly, for understanding.	
Have all equipment neccessary to complete the lab	
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Read the lab again, before asking.

Calcium in Water

Find Out ACTIVITY

In this activity, you will observe a chemical reaction between calcium metal and water.

Safety









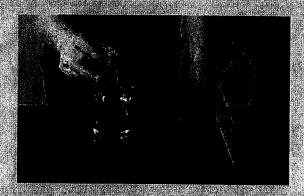
- Be careful around open flames.
- Tie back long hair.

Materials

- two 400 mL beakers
- two medium-sized test tubes
- water
- calcium metal
- paper towel
- test tube clamp or tongs
- candle and lighter or matches
- wooden splints
- phenolphthalein indicator solution

What to Do

- Place about 300 mL of water in a 400 mL beaker. Fill a test tube with water and place it upside down in the beaker. Keep out the air as much as possible.
- 2. Make sure your hands are dry. Obtain a few pieces of calcium metal directly from your teacher, who will place them on a piece of paper towel.



- Observe the calcium and then drop it into the water. Cover the calcium with the test tube to catch the gas that is produced.
- 4. As soon as the test tube is filled with gas, lift it out of the water. Be careful to keep the mouth of the test tube pointed down.
- 5. Hold the test tube with a test tube clamp. Using the candle and a wooden splint, test to see whether the gas produced is hydrogen (flaming splint will cause a "pop") or oxygen (glowing splint will reignite).
- 6. Using a clean beaker and test tube repeat the experiment from the beginning. This time add 5 drops of phenolphthalein indicator solution to the water in the beaker before adding calcium.
- Clean up and put away the equipment you have used.

What Did You Find Out?

- 1. What changes (state, colour, shape of solid, formation of gas) did you observe during the chemical reaction?
- 2. What is the likely identity of the gas that was produced?