Hydrogen peroxide is a compound that can be made to quickly decompose into the element oxygen and another compound, water. In this activity, you will decompose hydrogen peroxide by adding a catalyst, which is a chemical that helps speed up the process.

**Safety**



• Hydrogen peroxide solution is corrosive.

• Be careful around open flames.

• Tie back long hair

**Materials This is 1/3**

• liquid dish soap

• medium test tube in a test tube rack

• hydrogen peroxide (H2O2) solution

• candle and lighter

• scoopula

• potassium iodide (KI) crystals

• 2 wooden splints

**What to Do**

**1.** Put one drop of dish soap into the test tube.

**2.** Carefully pour hydrogen peroxide solution into the test tube until it is no more than 1/3 full.

**3.** Light a candle.

**4.** Use a scoopula to obtain about 1 mL (the size of a pea) of potassium iodide (KI) crystals and drop them into the test tube. You should see bubbles appear, making a foam as oxygen collects in the soapy water.

**5.** Light a wooden splint and blow it out, leaving a few embers glowing.

**6.** Place the glowing splint in the soap bubbles, keeping it above the solution. Observe and record observations.

**7.** Repeat steps 5 and 6 several times.

**8.** Clean up and put away the equipment you have used.

**What Did You Find Out? Please respond in full sentences.**

1. What happens to a glowing splint when it is placed in pure oxygen?

**2.** If you have practised the burning splint test for hydrogen in a previous investigation, compare the test for oxygen with the test for hydrogen, using a lit splint for both.

(a) How are the procedures different?

(b) How do the observations differ?

Find Out ACTIVITY

**3**. Did any errors occur in your lab? (Human error or equipment error?)