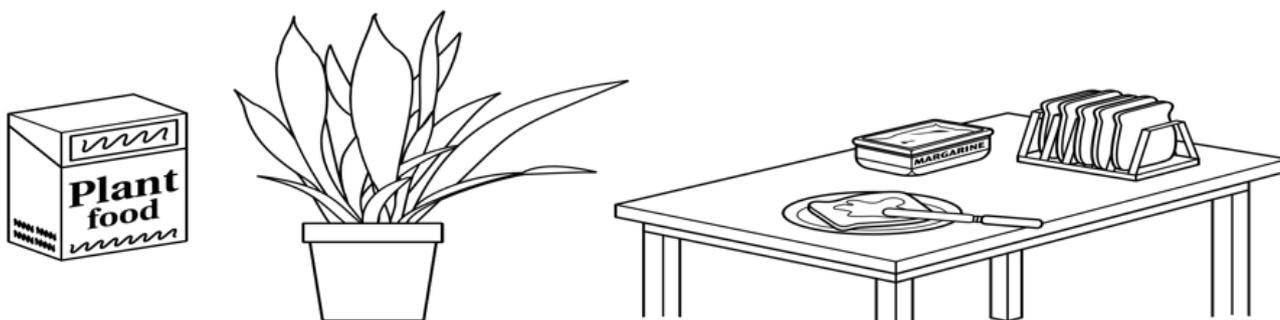


Hydrogen - literacy task

A common and useful gas

Hydrogen is a very useful chemical, and it is very common. Most of the Sun is made of hydrogen. Hydrogen is also part of most of the chemicals that make up your body. In fact, astronomers think that 90% of the universe is made of hydrogen!

Hydrogen can be used to make fertilisers. It can also be used to convert vegetable oil into margarine, and to make other chemicals such as hydrochloric acid (needed to make electronic equipment). Liquid hydrogen can be used as a rocket fuel, and it can even be used to generate electricity for spacecraft.



You have seen how hydrogen can be made by reacting a metal with an acid. However, this is not how hydrogen is made in industry. Many different chemicals contain hydrogen, and hydrogen can be obtained by splitting these chemicals in different ways.

The gas that you burn in a Bunsen burner is called natural gas, and the chemical name for it is methane. Methane is made up of hydrogen and carbon. Methane can be made to react with steam, and one of the products of the reaction is hydrogen.

Water is another chemical that includes hydrogen. If electricity is passed through water, it splits up to form hydrogen and oxygen gases. Water can also be made to react with red hot iron, and hydrogen is one of the products of the reaction.

Questions

- ① Name two chemicals which contain hydrogen.
- ② Describe how hydrogen can be made from other chemicals.
- ③ It is thought that hydrogen can be used to replace petrol as fuel for cars. Explain why you think this is a good idea or not.
- ④ Research what a fuel cell is and what the role of hydrogen is.