

NAME: \_\_\_\_\_

**PLASTICS**

1. Fill in the gaps with the following words:

natural	polymers
carbon	insulators
trees	chain
composition	recycled
biodegradable	natural gas

cheap
expensive
versatile

Plastics are materials formed by \_\_\_\_\_. The polymers in plastics are made from long \_\_\_\_\_ of \_\_\_\_\_ atoms. They can be \_\_\_\_\_ plastics (from plants, \_\_\_\_\_ or animals) or synthetic plastics (from crude oil, \_\_\_\_\_ or coal).

The properties of plastics depend on their type and \_\_\_\_\_. They are \_\_\_\_\_ to produce, \_\_\_\_\_ and durable.

Plastics are good \_\_\_\_\_ which makes them safe to use for casing electrical equipment. The majority of plastics are not yet \_\_\_\_\_ but some of them can be \_\_\_\_\_, although the process is difficult and \_\_\_\_\_.

2. Indicate the formation technique used to manufacture the following plastic materials:



milk bottle



bucket

housing for a  
household  
appliance

pipes



Basketball



Plastic tablecloth

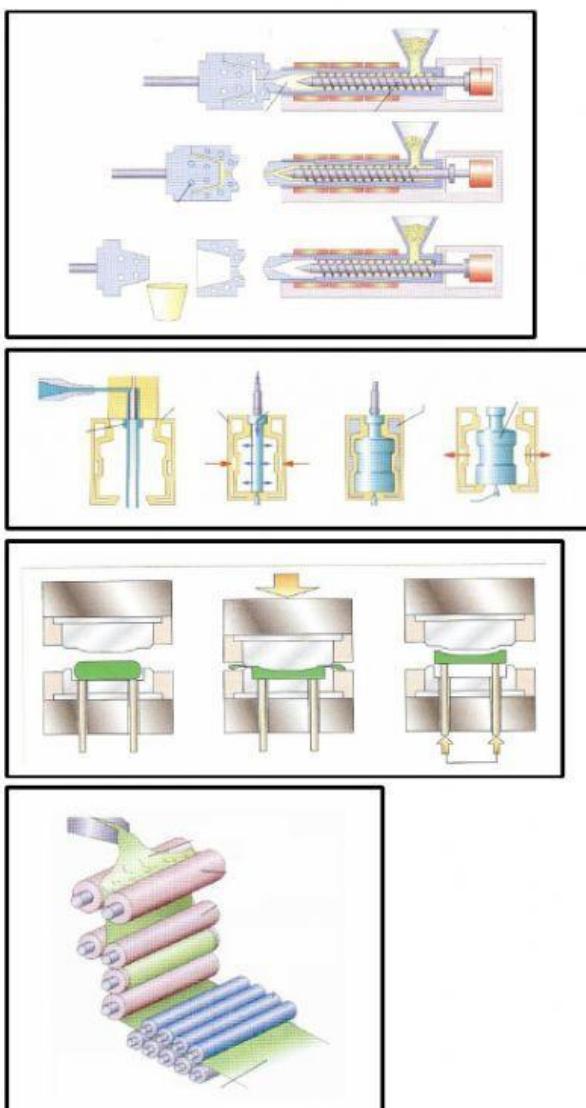


Light switch



Yogurt pot

3. What is the name of these formation techniques to shape plastics?



4. Match the descriptions with the plastic forming techniques:

Vacuum forming	A thermosetting plastic powder is pressed into shape and heated in a mould.
Extrusion	A sheet of polystyrene is heated and then shaped to a mold by sucking out the air between the plastic and the mold.
Injection moulding	Nylon granules are melted and then forced through a die into a continuous stream to form a pipe
Compression moulding	Polythene granules are fed into a heated cylinder and then pushed into a mold. When the material has cooled we extract it from the mould.
Blow moulding	Air is blown into an extruded section of plastic. The air expands and it forces plastic to the sides of the mould.

5. Fill in the gaps with the following words:

heat	elastomers	thermoplastic
soft	sulphur	strongly
thermostable	thermoplastics	weakly

We can classify plastics into three groups: \_\_\_\_\_, thermostables and elastomers.

A \_\_\_\_\_ may be repeatedly heated and cooled. After heating, the plastic become \_\_\_\_\_ and can be formed into different shapes. They are made up of \_\_\_\_\_ linked chains.

\_\_\_\_\_ plastics retain shape when cooled and cannot be reshaped or recycled.

These plastics can withstand \_\_\_\_\_ better than thermoplastics. They are made up of \_\_\_\_\_ linked chains.

\_\_\_\_\_ have a special ability to return to the original shape, after the force has been removed. They are made by vulcanisation, mixing \_\_\_\_\_ and rubber.

6. True or false?

- a. Plastics have a high density.
- b. Plastics materials are rustproof, which is a great advantage over other materials.
- c. Concrete is good for making columns.
- d. We extract stone from quarries.
- e. Concrete is a mixture of gravel, cement, sand and water.
- f. Reinforced concrete is concrete with wood bars inside it.
- g. Plaster is a good sound insulator.
- h. Ceramic is made from concrete.