

# Making Plastic Bottles

## Your assignment

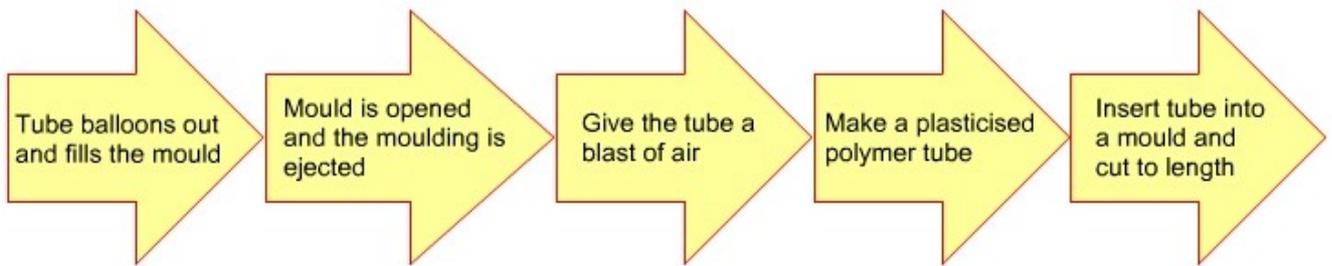
In this exercise, you will investigate how plastic bottles are manufactured and then describe the manufacturing process.

You may research information in the plastics technology notes and animations section of the Multimedia D&T Education Plastics software package.

Answer the questions in the boxes below.

Write your name:
1. Name the class of plastics that soften when they are heated:
2. Name two polymers that are used to manufacture plastic bottles:
3. Name a manufacturing process that is used to mould polymers into bottles:
4. Name a machine that melts polymer pellets and forms the melted polymer into long cylinders, tubes or other sections:
5. What is the name of a short length of plasticised polymer tube that will be formed into plastic bottles?
6. What forces the plasticised polymer tube against the sides of a mould?
7. State how the plasticised polymer is hardened before it is removed from the mould:
8. State how a moulded product is removed from a mould:
9. Explain how a finished bottle can be tested for leaks without using liquids:
10. Name a polymer that leeches dangerous chemicals and so should not be used for food containers:

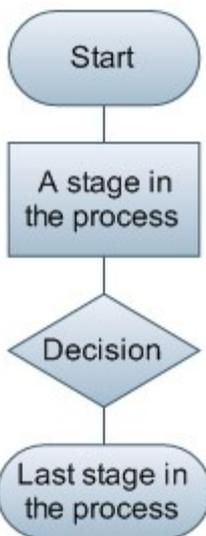
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The diagram above illustrates 5 stages in moulding a plastic bottle **but the stages are in the wrong order**.

Describe the correct order of stages of making a plastic bottle by moulding molten polymer.

Stage 1.
Stage 2.
Stage 3.
Stage 4.
Stage 5.



## Flow Diagram

Finally, on a separate piece of paper, draw a flow diagram of the stages of making a plastic bottle.

The shapes illustrated on the left are the shapes used to illustrate stages in a flow diagram.

Use the "Start" shape for the first stage of the process.

If you are not making any decisions in this flow diagram, you will not need to use the "Decision" shape.