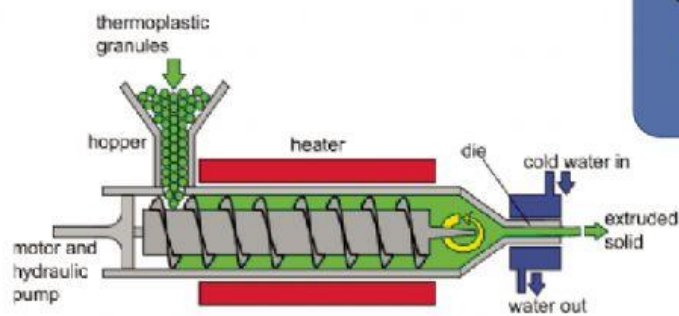




How are these made?



# Extrusion



## Clues to Extrusion:

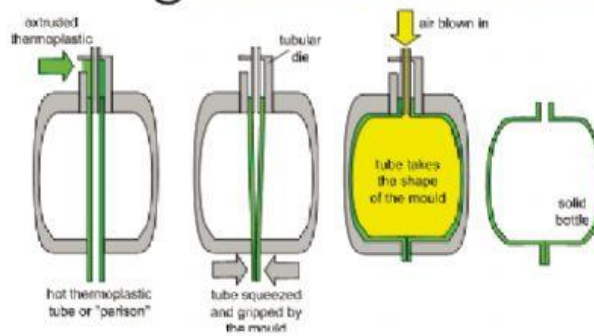
Long regular shape  
Can be tube/bar  
Shapes are linear

1. A motor turns a thread which feeds granules of plastic through a heater.
2. The granules melt into a liquid which is forced through a die, forming a long 'tube like' shape.
3. The extrusion is then cooled and forms a solid shape.
4. The shape of the die determines the shape of the tube.



# Blow Moulding

<http://www.youtube.com/watch?v=oR0gMKN58kY>



## Clues to Blow Moulding:

Shut Line  
Sprue Mark  
Closed neck/hollow shape

1. Mould is opened into it's two halves.  
A hollow tube of polymer known as the parison is heated.
2. The parison is lower into the mould.
3. Mould is clamped shut, leaving only a small hole for the air hose.
4. Air is forced into the mould at high pressure. The plastic is forced to the mould sides and cools.

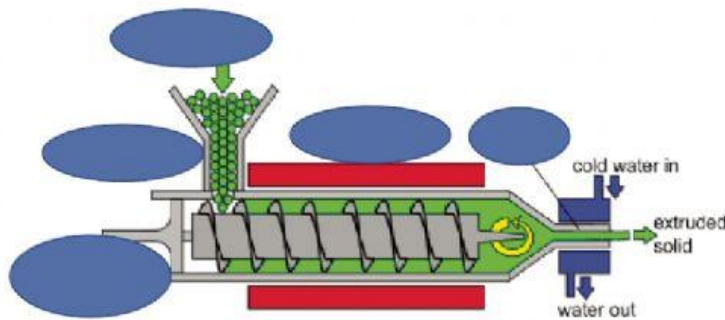
## *Activity 2:*

- Work in Group
- Set the steps in the correct sequence.
- label the shape and choose the correct properties of the objects made by injection moulding method in the blue box.
- Timing 15mins.

# Extrusion

## Clues to Extrusion:

Long regular shape  
Shut lines  
Can be tube/bar  
Sprue mark  
Shapes are linear  
Lots of detailed features  
Complex shape



1

The shape of the die determines the shape of the tube.

2

The granules melt into a liquid which is forced through a die, forming a long 'tube like' shape.

3

A motor turns a thread which feeds granules of plastic through a heater.

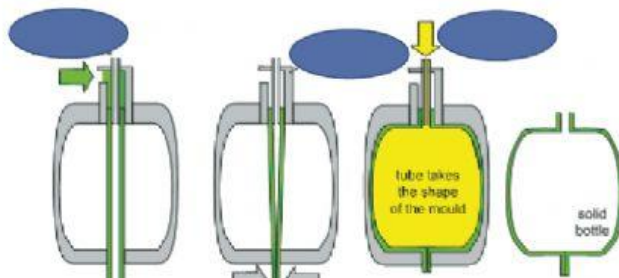
4

The extrusion is then cooled and forms a solid shape.

# Blow Moulding

## Clues to Blow Moulding:

Shut Line  
Shapes are linear  
Sprue mark  
Lots of detailed features  
Closed neck/hollow shape  
Complex shape



Mould is opened into it's two halves.

Air is forced into the mould at high pressure. The plastic is forced to the mould sides and cools.

A hollow tube of polymer known as the parison is heated.

Mould is clamped shut, leaving only a small hole for the air hose.

The parison is lower into the mould.