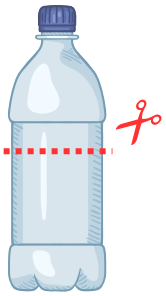
FILTRATION

We've explored the various benefits that habitats across the coast afford us, now let's explore on of these benefits for ourselves!

You will need:

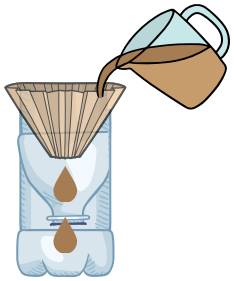
- 2L Bottle
- Scissors
- Coffee filter/ material
- Sand
- Gravel
- Bark
- Dirty Water

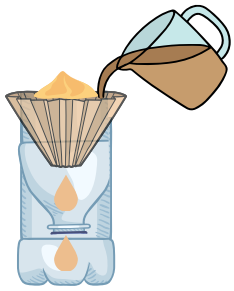


Step 1:Cut the bottle slightly above 1/2 way from the top into two pieces.

Step 2: Flip the top of the bottle upside down and slide into the bottom half of the bottle.

Step 3: Line the inside of the bottle top with the coffee filter or material and pour through your dirty water.





Step 4: Replace the filter/ material and repeat this, but adding either sand/ gravel or bark in addition to the filter/ material. Record the clarity of the water after each run.

Top Tip!
If using material, ensure it has been cleaned before re-using, to make sure there is no left over residue from previous experiments that could affect your work!

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Demonstration Explanation: Filtration is the process of separating the various components of a mixture consisting of solids within a liquid. The mixture is passed through a filter of some sort that allows the liquid to pass, whilst capturing the solids held within.

Oysters are fantastic filterers, passing seawater through their gills, and capturing the solid particles within that water. If the particles are edible, the oyster will digest them to get nutrients, if not, then the oyster releases what is known as 'pseudofeces', which is waste that has not been digested, like grit. The oyster binds its pseudofeces in mucus before spitting it out and having it settle on the seabed, and as it is now denser than the surrounding seawater it sinks to the seabed.