HOW TO MAKE A PULLEY

- Objectives:

To realise how a pulley works.

To appreciate the importance of pulleys for humans.

- Introduction.

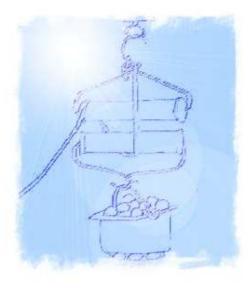
In this activity, children will make a single pulley and a double pulley. They will realise that using a pulley saves effort when lifting heavy objects.

You will need:

- Yoghurt pots
- Marbles
- Thread reels
- String
- Wire
- Pliers
- Eye hook

Procedures.

- 1. Take some wire and push it through the hole of the reel. Cut it with the pliers and twist the wire. Remember that we need it to finish in a hook. When you have done this, hang it from the eye hook that you have fixed previously on a high place (you can fix it to the roof, shelves or even hold it with your hand).
- 2. Now, you have to make a handle for the yoghurt pot with the wire. Then, loop the string over the pulley and tie it to the yoghurt pot. Place some marbles in the yoghurt pot.
- 3. Finally, pull down the string and you will see how easily you can lift the marbles.



Once children have realised that pulleys help us lift heavy objects with little effort, we will make a double pulley.

Step number 1 is the same as in the single pulley, but now we need two reels with the hook. One goes to the eye hook and the other will go to the handle of the yoghurt pot.

- 2. Take one end of the string and tie it to the top of the wire, as you can see in the picture. Loop the string under the lower pulley and back it up over the top of the other pulley.
- 3. Ask pupils whether they think that it will be easier now. Then, put the marbles in the yoghurt pot and hang it on the hook of the lower pulley.

4. Pull down the string and you will see that it is easier than before.

You can try lifting different objects!

