

# Make a Pulley

## You Will Need:

- pencil
- sticky tape
- string
- empty ribbon or thread spool
- small plastic cup, such as a yoghurt cup
- hole punch
- scissors
- small objects that will fit inside the cup
- ruler (optional)

## Questions

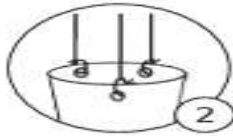
How does the pulley work?

Where are pulleys used?

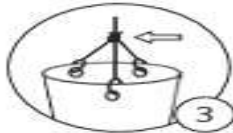
What improvements could you make to your pulley?



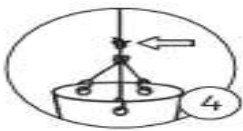
1 Punch three evenly spaced holes in the cup. If you don't have a hole punch, ask an adult to use scissors to make the holes. The cup will be your bucket for lifting objects.



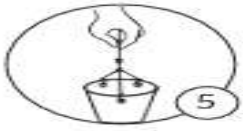
2 Cut three pieces of string, each about 10cm long. Tie one to each hole in the cup.



3 Tie the three loose ends of the string together.



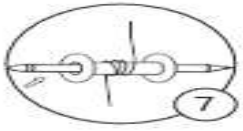
4 Cut another piece of string, about 30cm long. Tie one end around the knot that joins the three small pieces of string.



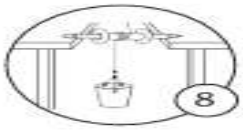
5 Hold on to the loose end of the string.



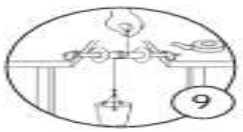
6 Wrap the long piece of string around the spool.



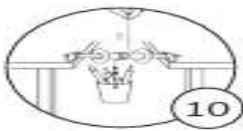
7 Push the pencil through the hole in the middle of the spool.



8 Choose a high place to put your pulley, such as between two tables or bookcases.



9 Holding on to the loose end of string so that your spool doesn't unwind, tape the ends of the pencil to the surface where you wish to mount your pulley.



10 Test your pulley by putting objects in the cup to raise and lower.