

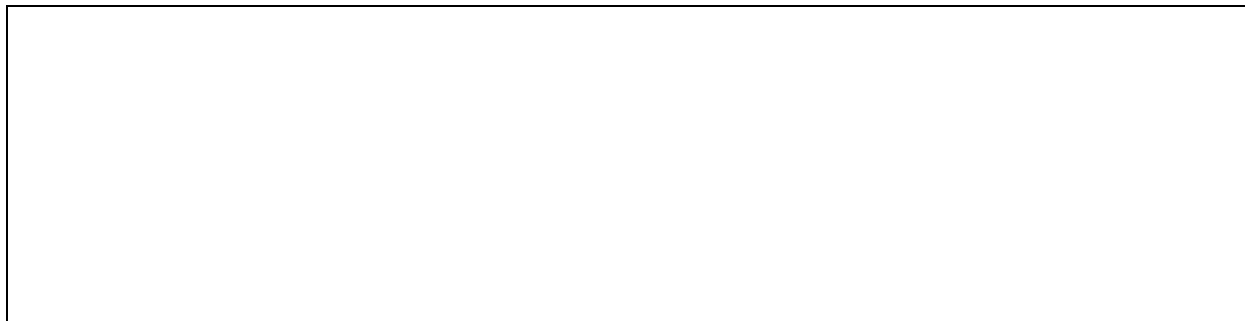
Colliding marbles

This task is about the transfer of energy.

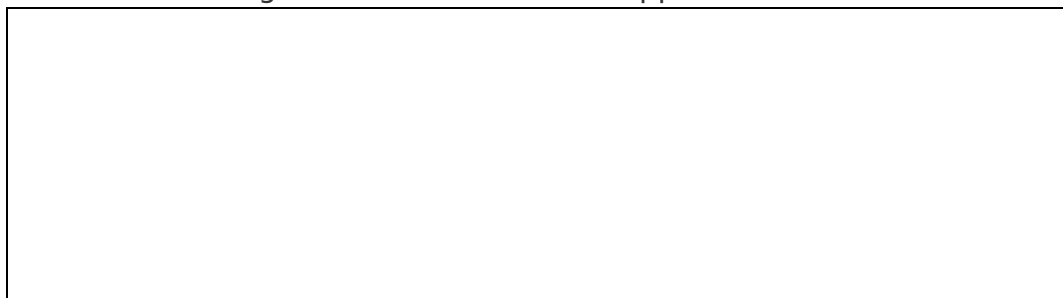
- a) Use the two large marbles to do the following.
Roll one of the large marbles into the other large marble which is sitting still (see diagram).



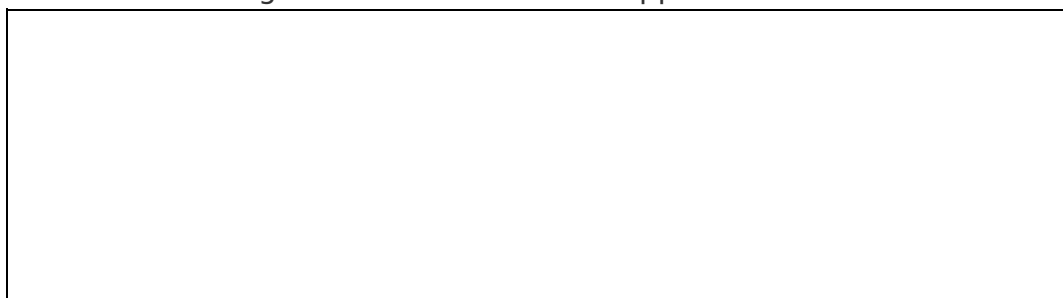
Draw a diagram similar to the one above to show what happens.



- b) i) Now roll a **smaller** marble into a **larger** marble which is sitting still.
Either draw a diagram or describe what happens.



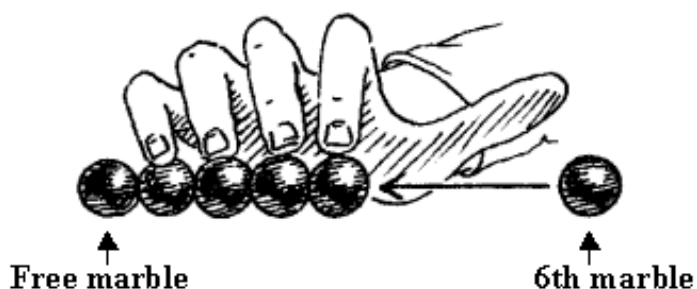
- ii) Now roll a **larger** marble into a **smaller** marble which is sitting still.
Either draw a diagram or describe what happens.



- iii) Write a general summary sentence to show what you have found out.

c) Investigate

On a flat surface (or in the fold of the newspaper) put 5 marbles close to each other. Hold 4 marbles together in a line with your fingers, leave one marble free on the end. Roll the sixth marble to hit the first marble held by your fingers. Try this a few times.



- i) Describe what happens to the free marble on the end of the line.

- ii) Explain what happens to the energy of the sixth marble as it hit the others.
