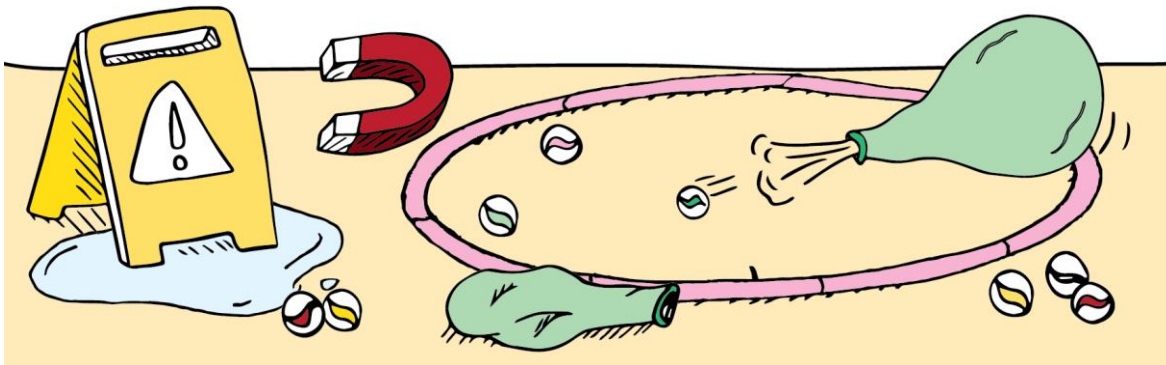


MARVELOUS MARBLES: TO MOVE OR NOT TO MOVE

Science in motion | Gravity and friction | Activity A1



CHALLENGE 1

Using the resources provided, find as many ways as possible to

- make the marbles move inside the hula hoop or rope circle.
- or to prevent them from moving inside the hula hoop or rope circle.

Things to think about and discuss

What things do you notice? Look closely. Answer clearly.

Are there any specialist words we could use?

What do those words mean?

Does the same thing happen every time? Test this again.

Based on the evidence of your exploring, what makes a marble move?

Based on the evidence of your exploring, what makes it stop?

Why do you think that the marbles change direction, speed up or slow down?

Things you'll need

Marbles – various sizes

Balloons

Double sided tape

Damp surface

String

Carpet

Spring pegs

Smooth surface

Hula hoop or rope to make a circle on the floor.

CHALLENGE 2

Using the suggested resources, find as many ways as possible to:

- a) Speed up your marbles.
- b) Slow down the marbles.
- c) Change the direction a marble is moving in.

Things to think about

What things do you notice? Is there a pattern?

What are the similarities or differences?

Based on the evidence of your exploring, why do the marbles change direction, speed up or slow down?

Have you noticed these things in real life? Where?

Teacher support material

For further activities and curriculum support:

[Science in motion \(Waka Kotahi Education Portal\)](#)