

# Kinetic Energy Activity



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This simple experiment demonstrates how energy is transferred from one object to another. Kinetic energy is energy that is in motion.

## You Will Need

- A ruler with a groove down the middle of it
- Some marbles



## What To Do

1. Put the ruler on a flat, level surface. Test it out with one marble to make sure it doesn't roll down the ruler. If your marble rolls away then your table is slanting, so find a different surface that's level.
2. Line up three marbles in the middle of your ruler and one marble at the end of the ruler.
3. You might need to give the end marble(s) a good flick, not too strong that your marbles fall off the table, but not too weak, so this could take a bit of practising!
4. What do you think will happen when you flick the marble at the end? Will the marbles in the middle roll away? Only one of the marbles will roll away!
5. Now try this with different numbers of marbles. For example, shooting 2 marbles at 3 in the middle. The number of marbles that you flick equals the number of marbles that roll away.

## What's Happening?

The rolling marble only transfers its energy to the marble it collides with, that transfers its energy to the next marble and so on. So one marble means one marble's energy gets transferred, two marbles means two marbles' energy and so on.