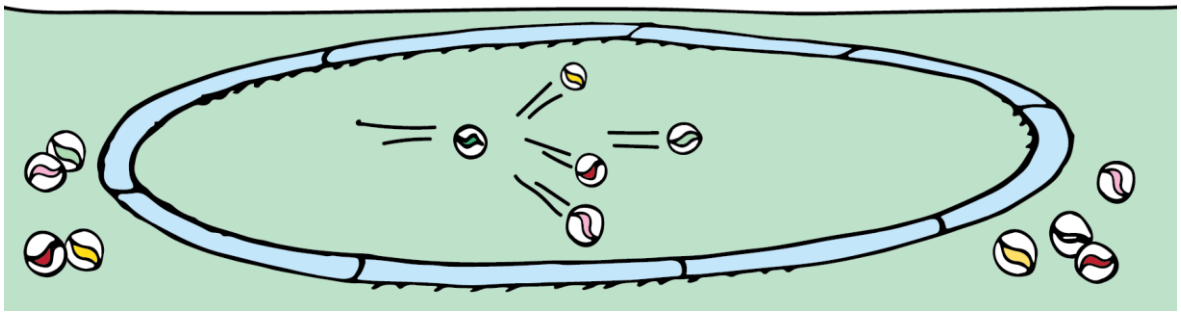
BANG!

Science in motion | Colossal Collisions | Activity B2



CHALLENGE

Using the marbles within your hula hoop, explore what happens to the marbles when they crash into each other.

Get into small groups – two students per group is best so you have lots of opportunity to learn.

See how many ways your marbles can crash. Observe closely.

- Are there any patterns you see emerging?
- What happens if one marble hits another moving marble head-on?
- What happens if one marble hits a glancing blow (side on) to a stationary or moving marble?

Write up a “Using Evidence” chart about what happens when marbles crash – see example below.

Things you’ll need
Hula hoop for each group
5 marbles for each group

Things to think about and discuss

Make a note of the different things you tried and what happened in the Observations / Patterns column of your chart below.

What happens to the energy of a moving marble when it hits another?

How could you further test or check your ideas?

Discuss and record what you think caused your observation or pattern in the next column (there is an example below).

Do your observations help you answer the Big Question: what happens when marbles crash? Fill in that column if you can.

Scientists often collaborate and share findings. Visit 2 or 3 other groups and share the things you tried, what you observed and what you think was the cause of the observation or pattern. You may like to add some of their ideas to your chart too.

Do your observations relate to a similar thing you have noticed in life around you?

Recording findings

What happens when marbles crash?			
Activity	**Observations / Patterns**	**What do we think was the cause of this observation or pattern?**	**How does this help us answer the big question?**
Bang!			

Teacher support material

For further activities and curriculum support:

Science in motion (Waka Kotahi Education Portal)