



# Squash, Bend, Twist and Stretch



## About this topic

### SUMMARY:

In this unit, children explore how the shapes of objects can be changed by squashing, bending, twisting and stretching. In doing this they raise questions, perform simple tests, and gather and record data.

### UNITS

3.1: Squash, squeeze, bend and twist!

### ACTIVITY RESOURCES:

3.1: Flying Mouse 3.2: Straw Rocket

### ONLINE RESOURCES:

Teaching Slides (PowerPoint): Squash, Bend, Twist and Stretch

Interactive activity: Squash, Bend, Twist and Stretch

CPD video: Squash, Bend, Twist and Stretch

Pupil video: Squash, Bend, Twist and Stretch

Word mat: Squash, Bend, Twist and Stretch

Editable Planning: Squash, Bend, Twist and Stretch

Topic Test: Squash, Bend, Twist and Stretch

### Learning objectives:

This topic covers the following learning objectives:

- Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.

### Working scientifically skills:

This topic develops the following working scientifically skills:

- Observe closely.
- Perform simple tests.
- Identify and classify.
- Use observations and ideas to suggest answers to questions.
- Gather and record data to help in answering questions.



## CROSS CURRICULAR LINKS

This topic offers the following cross-curricular opportunities:

### English

- New words: Tenses, squash, squashing, squashed
- Following and/or writing instructions to make a mouse rocket.
- Predict what will happen next in a science activity.
- Write up a real event, e.g. testing rocket mice
- Reading non-fiction to research information about objects that can be squashed etc..
- Read: *Duck on a Bike* by David Shannon.

### Numeracy and Mathematics

- Estimating and comparing how much something can be stretched.

- Measuring distance that something has been stretched using standard measures.
- 2D and 3D shapes, e.g. rocket mice

### Art

- Make collages using materials that can be squashed, twisted, bent and stretched.
- Use dough or clay to make a sculpture using squash, twist, bend and stretch.

### PE

- Different kinds of movement.
- Moving different parts of the body.
- Improving movement skills, from gross motor to fine motor movements.

### Role Play

- Science laboratory – sorting, testing,
- Sort and test different cars or moving toys.

- How does a scooter work? Look at a bicycle – name the different parts, find different kinds of materials.
- Take apart a moving toy – which parts help to make it move?

## D & T

- Design different rocket mice and test them.
- Design and make something that uses different materials that can be bent, squashed, stretched or twisted.
- Follow a bread recipe to make a mini loaf twist.

## Computing / ICT

- Use a tablet to take photographs.
- Use a tablet for QR codes to find object that are squashed, twisted, bent or stretched.
- Use a digital microscope to view materials.



## STEAM (SCIENCE TECHNOLOGY ENGINEERING ART AND MATHS) OPPORTUNITIES

### Invite into class

- Primary Engineers or a STEM ambassador
- Baker to make bread or pizza dough with class
- Gymnast (maybe child from another class, to perform and show how body moves and bends)

### Visit

- A local car mechanic and garage
- A local park to use swings, slides etc.
- Local bakery where bread is baked on site



## SCIENTIFIC VOCABULARY: Move It

It is assumed that most children know, from their EYFS Stage experience, words such as squash, squeeze and direction, although they might not know how to write and spell them. You can download a Word Mat of essential vocabulary for this topic from *My Rising Stars*.

**bend:** to force something that is straight into a curve or an angle

**squash:** to push something together so that it changes shape, e.g., becomes flat

**stretch:** to pull something and make it longer

**twist** – to turn something that is still or standing

**Key words:** bend / dough / elastic / f / pull / push / squash / squeeze / stretch



## PREPARE THE CLASSROOM

### I am a scientist

- White laboratory coats (white shirts) for children to wear. You could limit these to, e.g., four to regulate the number of children using the area.
- Children's goggles or protective glasses to wear to help them take on the role of a scientist.
- Collection of wind-up toys
- Collection of toys that move
- Objects that can have their shape changed, e.g. sponges
- Materials that can have their shape changed, e.g. dough, silly putty
- Paper, card and scissors
- Camera