



The Moorlands Primary Federation Science Plan



School: Bishop Rawle **Class:** Year 2
Termly Learning Plan: Squash, Bend, Twist and Stretch **Term:**

Unit Overview:

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.

STEAM (Science, technology, Engineering, Art, Maths)

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

Learning Sequence & Objectives	Working scientifically skills	Resources
FLEXIBLE ME	Observe closely. Use observations and ideas to suggest answers to questions. Gather and record data to help in answering questions.	PE lesson

<p>EYFS: Talk about the differences between materials and changes they notice.</p> <p>L.O. Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</p>		
<p>SQUASH ME, BEND ME, TWIST ME, STRETCH ME</p> <p>EYFS: Explore materials with similar and/or different properties</p> <p>L.O. Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</p>	<p>Observe closely. Perform simple tests. Use observations and ideas to suggest answers to questions. Gather and record data to help in answering questions.</p>	<p><u>Possible resources:</u> Squash me: Half-filled balloons, Blu Tac, bath sponges, cushions, Flump sweets, playdough Bend me: Pipe cleaners, florist wire Twist me: Fabric, rope, playdough Stretch me: Elastic, fabric, playdough, socks, tights</p>
<p>SORT ME</p> <p>EYFS: Talk about the differences between materials and changes they notice.</p> <p>L.O. Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</p> <p>AT HOME</p> <p>L.O. Find out how the shapes of solid objects made from some materials can be changed by</p>	<p>Identify and classify.</p>	<p>Collection of objects from activity 2 PowerPoint Slides 6 and 7</p> <p>PowerPoint Slide 8</p>

<p>squashing, bending, twisting and stretching.</p>		
<p>BALLOON SHAPES</p> <p>EYFS: Talk about the differences between materials and changes they notice.</p> <p>L.O. Find out how the shapes of solids objects made from some materials can be changed by squashing, bending, twisting and stretching.</p>	<p>Perform simple tests.</p>	<p>PowerPoint Slide 9 Balloons</p>
<p>STRETCHY SOCKS</p> <p>EYFS: Talk about the differences between materials and changes they notice.</p> <p>L.O. Find out how the shapes of solids objects made from some materials can be changed by squashing, bending, twisting and stretching.</p>	<p>Perform simple tests.</p>	
<p>STRETCH AND SQUASH FLYING MOUSE</p> <p>EYFS: Talk about the differences between materials and changes they notice.</p> <p>LO: Find out how the shapes of solids objects made from some materials can be changed by</p>	<p>Observe closely. Perform simple tests. Use observations and ideas to suggest answers to questions. Gather and record data to help in answering questions.</p>	<p>Selection of favourite books and characters Playdough, Plasticine or clay for modelling</p> <p>Activity Resources 3.1 and 3.2 Plastic milk cartons – 1 and 2 litre Card for making mouse PowerPoint Slide 5</p>

squashing, bending, twisting and stretching.

Cross curricular links

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.

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

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.

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?

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

Vocabulary

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 / pull / push / squash / squeeze / stretch

Christian Distinctiveness

Uniqueness