

<p><b>Knowledge Objectives:</b>                  *How things move - objects move in different ways (roll, slide, bounce etc.)                  *Forces change how things move by pushing and pulling.                  *Pushing and pulling sometimes slows things down, speeds them up or makes it change direction.                  *Bigger pushes and pulls have bigger effects.                  *Forces change shapes - by squashing, bending, twisting and stretching</p>		<p><b>Skills Objectives:</b>                  *Observing closely and describe what see.                  *Ask simple questions about the world around them - linked with forces.                  *Carry out simple tests.                  *Compare differences and changes.                  *Describe the effect of changing things - force.                  *Record results on a simple tables.</p>		
<p><b>Prior Learning:</b> Vocab through play - push, pull, roll, slide, bounce.</p>				
<p><b>Safety in Science/Risk Assessment</b> - refer to the following cards in staff share - Forces cards 22 &amp; 24</p>				
<p><b>Key Vocabulary:</b> Push, pull, force, bounce, roll, slide, slower, quicker, direction, speed, effects, squash, bend, twist, stretch, elastic, change. Observe, describe, question, test, investigate, compare, differences, table, results, measure,</p>				
<p><b>Activities/Learning Journey:</b></p>		<p><b>Building Block Topic</b></p>		
<p>1. How Things Move.                  Objects move in different ways: they roll, slide, bounce etc.</p> <p>Whole class or group 'problem!                  Make a toy box that only contains the very best bouncing balls, rolling cars and sliding blocks.</p> <p>How can we do this?                  How do we find out which toys can go in the box?                  Share ideas and Tchr collate them. Photo evidence, can children explain why they are in the box.                  E.g. these balls bounced the highest when we dropped them.                  These cars rolled the furthest when we pushed them with one hand.</p>	<p>2. Forces change how things move.                  We can change the way an object moves by pushing or pulling them. Sometimes pushing and pulling slows things down, sometimes it speeds them up and sometimes it makes it change direction.</p> <p>Show children a marble run (PM has one) and challenge them to find out how they could make a marble move down a run really slowly. Pose an investigation question such as; How does the material affect how fast a ball rolls down a slope?                  See photo e.gs of marble runs. Record with photos for children to add an explanation to.....of how they made the marble roll slowly.</p>	<p>3&amp;4. Making forces bigger.                  Bigger pushes and pulls have bigger effects. (They change how things move).</p> <p>Investigations; choose 2                  *How does the length/steepness of a slope affect how far a ball/car/tin will roll to the end?                  Was it a push or a pull that made it go further?</p> <p>*How does how hard/long I press a pop up toy for affect how high it jumps?</p> <p>*On what surface do objects roll the best on? Is it the same for sliding?</p>	<p>5&amp;6. Forces change shapes.                  Sometimes when an object is pushed, pulled or twisted it changes shape.                  Investigations; choose 2                  *Which material would be best for a teddy bungee cord? (elastic bands, ladies tights,(different denier?) sheering elastic, rubber balloons, lycra fabric)</p> <p>*Which sock is the most elastic/stretchy?                  *Which play dough recipe (PM has several) needs the greatest push to squash it?                  *How does the height an egg is dropped from affect how big the splat pattern is? (You could use wet tissue paper balls)</p>	<p>7. Assessment:                  Can you find/think of 4 things that we need to push to make move and 4 things that we need to pull?                  (E.g.: zip, shoe laces, toy car, door bell, shopping trolley, scissors, swing, gloves, door, PE bag string, dog lead, fishing rod).                  After the child has drawn 8 pictures and labelled them. Select 1 or 2 (depending on ability) and pose the question:                  Why do we need to push/pull this object? (E.g. to make it go faster, To make it go further, to make it roll along.....etc.)                  Choose an appropriate object that allows the child to demonstrate their knowledge of forces.                  If able to child to record their response in an explanatory sentence.</p>
<p><b>GDS/Challenges;</b> Demand more detail in explanations - cause and effect (e.g. the car went further <i>because</i>.....) using appropriate vocabulary. Be able to make suggestions when planning investigations together. More accurate scientific vocabulary being used to describe and explain.</p>				

**Key outcome/Assessment Opportunity; See session 7**

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