



Progression in knowledge

National Curriculum statements in red are from other linked topics.

Forces

Early learning goal	<p>Communication and Language - Listening, Attention and Understanding</p> <ul style="list-style-type: none"> ● Make comments about what they have heard and ask questions to clarify their understanding. <p>Personal, Social and Emotional Development - Managing Self</p> <ul style="list-style-type: none"> ● Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices. <p>Understanding the World - The Natural World</p> <ul style="list-style-type: none"> ● Explore the natural world around them, making observations and drawing pictures of animals and plants. ● Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class. ● Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter
Year 1	
Year 2	<ul style="list-style-type: none"> ● Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching (Y2 Uses of everyday materials)
Year 3	<ul style="list-style-type: none"> ● Compare how things move on different surfaces. ● Notice that some forces need contact between two objects, but magnetic forces can act at a distance. ● Observe how magnets attract or repel each other and attract some materials and not others. ● Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials. ● Describe magnets as having two poles. ● Predict whether two magnets will attract or repel each other, depending on which poles are facing.
Year 4	

Year 5	<ul style="list-style-type: none"> ● Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object. ● Identify the effects of air resistance, water resistance and friction that act between moving surfaces. ● Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.
Year 6	
KS3	<ul style="list-style-type: none"> ● Magnetic fields by plotting with compass, representation by field lines ● Earth's magnetism, compass and navigation ● Forces as pushes or pulls, arising from the interaction between two objects. ● Using force arrows in diagrams, adding forces in one dimension, balanced and unbalanced forces. ● Moment as the turning effect of a force. ● Forces: associated with deforming objects; stretching and squashing – springs; with rubbing and friction between surfaces, with pushing things out of the way; resistance to motion of air and water. ● Forces measured in Newtons, measurements of stretch or compression as force is changed.