YEAR 3

	EYFS	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6
FORCES AND MAGNETISM PHYSICS	**The three Prime ELGs of Communication & Language, PSED and Physical Development provide the foundations of which all other learning is built upon.** **Specific:** The Natural World ELG Explore the natural world around them, making observations 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.			Compare how things move on different surfaces. Notice that some forces need contact between 2 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 2 poles. Predict whether 2 magnets will attract or repel each other, depending on which poles are facing.		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.	

FORCES AND MAGNETISM
COMPOSITES

Compare how things move on different surfaces.
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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 2 poles. Predict whether 2 magnets will attract of repel each other, depending on which way the poles are facing.							
COMPONENTS							
	1	**2**	**3**	**4**	**5**	**6**	**End Point**
	What is force?	**How do different surfaces effect friction?**	**Which materials are magnetic?**	**Are all magnets the same strength?**	**What is a magnetic pole?**	**How can magnets be used in a game?**	**To use knowledge of force and magnets to create a magnetic board game.**
CONCEPTS **Link to concept map**	FORCES	FORCES	FORCES	FORCES	FORCES	FORCES	
SKILLS	Notice that some forces need contact between 2 objects. Using results to draw simple conclusions. Using straightforward scientific evidence to answer questions or to support their findings.	Compare how things move on different surfaces. Making systematic and careful observations.	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. Setting up simple practical enquiries, comparative and fair tests. Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables. Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.	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. Setting up simple practical enquiries, comparative and fair tests. Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables. Reporting on findings from enquiries, including oral and written explanations,	Describe magnets as having 2 poles. Predict whether 2 magnets will attract or repel each other, depending on which poles are facing.	Observe how magnets attract or repel each other and attract some materials and not others. Setting up simple practical enquiries, comparative and fair test. Asking relevant questions and using different types of scientific enquiries to answer them.	Understand magnets; How they attract, repel and have 2 poles and group them based on this.

				displays or presentations of results and conclusions.			
KNOWLEDGE Forces And Magnets Knowledge Organizer | Year 3 Science (twinkl.co.uk)	Understand what a force is and know that some forces need contact.	Understand the term friction and identify why materials effect friction.	Identify magnetic objects and understand why they are magnetic.	Understand magnets can be different strengths.	Understand there are 2 poles, what is different about them and if they attract or repel.	Plan a magnetic board game using prior knowledge and test their understanding of magnets attracting and repelling to create a functioning magnetic board game.	
LESSON LINK	MTP Term 1	MTP Term 1	MTP Term 1	MTP Term 1	MTP Term 1	MTP Term 1	
PROGRESSIVE VOCABULARY	force pull push	force friction surface	force magnet magnetic attract magnetic field	magnet attract repel force	pole north south attract repel	attract magnetic force applications	Articulate and recognise subject specific vocabulary
CURRICULUM EXPERIENCES	Children to use a variety of equipment to test out forces.					Children to create their own game using magnets.	
END POINT	Children to understand what a force is identify what effect a force has on an object.	Know what friction is and how different materials can affect friction.	Know what magnetism means and identify magnetic materials.	Know that magnets have varying strengths.	Understand and explain which magnets will attract and which will repel and identify the pole.	Choose magnet strength and pole to create a working magnetic game.	To use knowledge of force and magnets to create a magnetic board game.