

**Pilgrim Federation EYFS & Key Stage 1 Curriculum Coverage Ideas & Resources for the Learning Theme:
Machines, Inventions & Transport**

Machines & Inventions									
EYFS	Science	Art & Design	Computing	D&T	Geography	History	Music	PE	Other links/ideas
Continuous provision will be in place throughout the learning theme based on PLODS (possible Lines of development)	<p><u>The Natural World ELG</u> Explore the natural world around them, making observations and drawing pictures of animals</p> <p>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.</p>	<p><u>Creating with Materials ELG</u> Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form, and function;</p> <p>Share their creations, explaining the process they have used; -</p> <p>Make use of props and materials when role playing characters in narratives and stories</p>	<p>Use technology to support learning understanding .</p> <p>How to program to make technological equipment work.</p> <p>Recognise use of technology outside of school – computerisation and robotics e.g.</p> <p>Work of Cynthia Breazel.</p> <p>Store and retrieve information.</p>	<p>Design – consider aesthetics and functionality.</p> <p>Make – use a range of tools safely and effectively.</p> <p>Evaluate – test against criteria for purpose of design and judge.</p> <p>Adapt as necessary.</p> <p>Construct a vehicle https://teachers.thenational.academy/lessons/construct-a-vehicle-6hgp6e?from_query=transport</p>	<p><u>People Culture and Communities ELG</u> Explain some similarities and differences between life in this country and life in other countries, drawing on knowledge from stories, non-fiction texts and – when appropriate – maps</p> <p>Machine and inventions that have changed our landscape e.g. machines to destroy (deforestation)</p>	<p><u>Past and Present ELG</u> Talk about the lives of the people around them and their roles in society;</p> <p>Know some similarities and differences between things in the past and now, drawing on their experiences and what has been read in class;</p>	<p><u>See also Charanga Schemes of work</u></p> <p><u>Being Imaginative and Expressive ELG</u> Sing a range of well-known nursery rhymes and songs; Perform songs, rhymes, poems and stories with others, and – when appropriate try to move in time with music.</p> <p>Use voice creatively.</p>	<p><u>See also RealPE Schemes of work.</u></p> <p><u>Gross Motor Skills ELG</u> Negotiate space and obstacles safely, with consideration for themselves and others; Demonstrate strength, balance and coordination when playing; Move energetically, such as running, jumping, dancing, hopping, skipping and climbing.</p>	<p>Trip to Thursford to see the traction engines.</p> <p>Hethell engineering visit</p> <p>KS1 STEM events</p> <p>British Transport Museum visit?</p> <p>CBeebies – Maddie do you know? A series about how machines work and how things are made.</p>

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Machines & Inventions

EYFS (cont.)	Science (cont.)	Art & Design (cont.)	Computing (cont.)	D&T (cont.)	Geography (cont.)	History (cont.)	Music (cont.)	PE (cont.)	Other links/ideas (cont.)
	<p>Linked to D&T the invention of new machines for different purposes with movable parts.</p> <p>Materials & their properties.</p> <p>Looking at what types of materials machines are made from and explore why they are made that way.</p>	<p>Use drawing, painting, sculpting to express ideas.</p> <p>Use a range of media to represent and make.</p> <p>To develop a wide range of techniques to express texture, colour, shape, form, Pattern and space.</p> <p>Range of artists and their work, comparing and describing, linking to own work.</p>			<p>Machines to create – earthwork machines and other machines/ vehicles used to build.</p> <p>How machines have removed geographical features or created them – e.g. sea defences.</p>	<p>Understand the past through settings, characters and events encountered in books read in class and storytelling;</p> <p>Lives of significant Britain’s – Joseph Swan and the light bulb.</p> <p>William Fox Talbot – photography from negatives.</p>	<p>Play tuned and untuned instruments.</p> <p>Experiment with and combine interrelated dimensions of music.</p> <p>Listen to a range of music recorded and live.</p>	<p>Master basic movement.</p> <p>Participate in team games.</p> <p>Perform dances and sequences using patterns of movement.</p> <p>This could be topic linked if desired.</p>	

Machines & Inventions

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		Focuses could include – Leonardo Da Vinci’s drawings and works on inventions e.g. helicopters.	Links to philosophy and the idea of computers taking over the world ‘I am robot’ issue.			<p>Trevithick the steam engine.</p> <p>National and international events of significance.</p> <p>The great exhibition and inventions begun therein.</p> <p>Abraham Darby and the birth of the industrial revolution in Britain.</p> <p>Thomas Telford etc.</p> <p>How has transport made the world more connected?</p>	Recorded music and ways of hearing it linked to technology outside of school – development of musical technology, record players, and cassettes ways of recording and playing back sound.		<p>https://www.bbc.co.uk/cbeebies/shows/itz-and-bob</p> <p>CBeebies – Catie’s Amazing Machines</p> <p>Types of transport (EYFS)</p> <p>https://teachers.thenational.academy/lessons/transport-model-60wpat?from_query=transport</p> <p>https://teachers.thenational.academy/units/transport-0359?from_query=transport</p>

Machines & Inventions

EYFS (cont.)	Science (cont.)	Art & Design (cont.)	Computing (cont.)	D&T (cont.)	Geography (cont.)	History (cont.)	Music (cont.)	PE (cont.)	Other links/ideas (cont.)
						<p>https://teachers.thenational.academy/lessons/how-has-improved-transport-made-the-world-more-connected-part-1-c5j68r?from_query=transport</p> <p>https://teachers.thenational.academy/lessons/how-has-improved-transport-made-the-world-more-connected-part-2-cmv34t?from_query=transport</p>	<p>Focuses could include comparing a work recorded in diff ways for comparison of sound.</p> <p>Music from machines – techno music synthesised music e.g. Jean Michel Jarre, Jeff Wayne’s war of the worlds.</p>		<p>Glitter Germs – how to use a washing machine https://teachers.thenational.academy/lessons/glitter-germs-c9j3at?from_query=machine</p> <p>Explain how something works (EYFS) https://teachers.thenational.academy/lessons/to-explain-how-something-works-cmrkee?from_query=inventions</p>

Transport

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Continuous provision will be in place throughout the learning theme based on PLODS (possible Lines of development)	<p><u>The Natural World ELG</u> Explore the natural world around them, making observations and drawing pictures of animals</p> <p>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.</p>	<p><u>Creating with Materials ELG</u> Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form, and function;</p> <p>Share their creations, explaining the process they have used; -</p>	<p>Use programmable equipment e.g. bee bots</p> <p>Use software programs.</p> <p>Program and debug.</p> <p>Simple programming using basic control.</p> <p>code.org (hour of code)</p>	<p>Designing and building with moving parts – vehicle models.</p> <p>Design, make, evaluate, and amend/adapt.</p> <p>Design and build a car or other type of transport.</p> <p>Paper aeroplanes</p> <p>Hot air balloons</p> <p>Gyrocopters</p>	<p><u>People Culture and Communities ELG</u> Explain some similarities and differences between life in this country and life in other countries, drawing on knowledge from stories, non-fiction texts and – when appropriate – maps</p> <p>Maps and atlases – finding and naming places and contrasting localities.</p>	<p><u>Past and Present ELG</u> Talk about the lives of the people around them and their roles in society;</p> <p>Know some similarities and differences between things in the past and now, drawing on their experiences and what has been read in class;</p>	<p><u>See also Charanga Schemes of work</u></p> <p><u>Being Imaginative and Expressive ELG</u> Sing a range of well-known nursery rhymes and songs;</p> <p>Perform songs, rhymes, poems and stories with others, and – when appropriate try to move in time with music</p>	<p><u>See also RealPE Schemes of work.</u></p> <p><u>Gross Motor Skills ELG</u> Negotiate space and obstacles safely, with consideration for themselves and others;</p> <p>Demonstrate strength, balance and coordination when playing;</p>	<p>Visit transport museum</p> <p>Poppy line railway - steam and diesel engines.</p> <p>Norwich aviation museum</p> <p>CBeebies – Catie’s Amazing Machines</p> <p>CBeebies – Maddie’s do you know?</p>

Transport

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	<p>Designing investigations – testing and evaluating – concluding and asking further questions (secondary investigations)</p> <p>This could be done through investigating forces and motion (no longer compulsory at this key stage but still relevant), linked to movement of different types of vehicles.</p>	<p>Make use of props and materials when role playing characters in narratives and stories. Use a wide range of techniques.</p> <p>Draw and paint using own ideas.</p> <p>Be exposed to significant works and artists.</p> <p>Example artists and works:</p>			<p>Using transport around the world including unique transport specific to particular locations e.g. Venetian Gondolas.</p> <p>Around the world in 80 days by Jules Verne could be a spring board.</p>	<p>Understand the past through settings, characters and events encountered in books read in class and storytelling;</p> <p>The lives of significant Britain’s and key historical events home and abroad.</p> <p>Development of vehicles and transport first flight, records and impressive achievements e.g. sailing round the world solo.</p>	<p>Use their voices expressively and creatively by singing songs and speaking chants and rhymes.</p> <p>Play tuned and untuned instruments musically.</p> <p>Listen with concentration and understanding to a range of high-quality live and recorded music.</p>	<p>Move energetically, such as running, jumping, dancing, hopping, skipping and climbing.</p> <p>Team games, small and large apparatus, body control work.</p> <p>This can be linked to transport stories.</p>	

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	<p>Basic physics concepts e.g. flight and sailing – gravity sinking and floating etc.</p> <p>Everyday materials can be explored through design projects for vehicles such as amphibious vehicles, bridge building to take vehicles etc.</p> <p>How are seeds transported? – animals/wind</p>	<p>JWM Turner (train on bridge painting)</p> <p>Fitzwilliam (arrival/depart ure St. Pancras)</p> <p>Art techniques – beyond individual artist’s styles examples could be sculpture with moving parts</p>			<p>Can children plot a route on a simple map – for example how they get to school or the route to get to Grandma’s house.</p> <p>How would they get from home to Norwich?</p> <p>Where is the nearest...? Airport Hospital Beach Shop</p>	<p>Significant Britain’s such as Stephenson (Stephenson’s rocket). Trevithick – inventor of the steam engine.</p> <p>Development of transport over time locally and nationally – steam railways, from horses to cars etc.</p>	<p>Experiment with, create, select and combine sounds.</p> <p>Using the inter-related dimensions of music.</p> <p>Topic linked songs and musical pieces can be used if appropriate depth available within them.</p> <p>skills</p>		<p>Travel & Transport</p> <p>https://www.bbc.co.uk/teach/class-clips-video/history-geography-ks1-travel-transport-index/zxjsydm</p> <p>https://www.hamilton-trust.org.uk/topics/key-stage-1-topics/changes-within-living-memory/transport/</p>

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							<p>Example: Pitch and tone could be explored through a 'car noise choir' using voice to represent known sounds – listening</p>		<p>https://www.twinkl.co.uk/resources/planit-history-primary-teaching-resources/planit-history-primary-teaching-resources-ks1/planit-history-primary-teaching-resources-ks1-travel-and-transport</p>

Machines, Inventions & Transport

Possible links to English:	Possible Links to Maths:
<p>https://www.booksfortopics.com/transport</p> <p>Fiction:</p> <p>Runaway Train – Benedict Blathwayt Mr Gumpy's Motor Car – John Birmingham Get Off My Train – John Birmingham Naughty Bus - Jan and Jerry Oke Mrs Armitage on Wheels - Quentin Blake All Aboard for the Bobo Road - Stephen Davies & Christopher Corr Emma Jane's Aeroplane - Katie Haworth & Daniel Rieley The Hundred Decker Bus - Mike Smith Cycle City - Alison Farrell On The Train (Shine a Light) - Carron Brown & Bee Johnson Iggy Peck Series – Andrea Beaty We Catch the Bus – Katie Abey On the Way Home – Jill Murphy Duck in the Truck – Jez Alborough The Train Ride – June Crebbin</p> <p>Non-Fiction:</p> <p>Amelia Earhart: Little People, Big Dreams: 3 Paperback – 8 Sept. 2016 by Isabel Sanchez Vegara All Kinds of Cars - Carl Johanson William Bee's Wonderful World of Tractors and Farm Machines - William Bee My First Book of Transport – Collins Look Inside Things That Go – Jones Lloyd</p> <p>Poetry:</p> <p>Choo Choo Clickerty Clack – Margaret Mayo Dig Dig Digging Emergency!</p>	<p>Measure and scale (when using maps)</p> <p>The Hundred Decker Bus – Mike Smith - Number</p>

<p>Zoom Rocket Zoom The Smeds and The Smoos – Julia Donaldson The Food Train The Train - Svebbing</p> <p>Song: The Wheels on the Bus</p>	
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