Pilgrim Federation Curriculum Coverage Ideas and Resources for the Learning Theme: Machines and Inventions

EYFS	
Continuous provision will be in place throughout the learning theme based on PLODS (Possible Lines Of Development)	
Art & Design	**Computing**
Creating with Materials ELG Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form, and function. Share their creations, explaining the process they have used. Make use of props and materials when role playing characters in narratives and stories Focuses could include – Leonardo Da Vinci's drawings and works on inventions e.g. helicopters.	Use technology to support learning understanding. How to program to make technological equipment work. Recognise use of technology outside of school – computerisation and robotics e.g. Work of Cynthia Breazel. Store and retrieve information. Links to philosophy and the idea of computers taking over the world 'I am robot' issue.
Design & Technology	**Geography**
Design – consider ascetics and functionality. Make – use a range of tools safely and effectively. Evaluate – test against criteria for purpose of design and judge. Adapt as necessary. Construct a vehicle https://teachers.thenational.academy/lessons/construct-a-vehicle-6hgp6e?from_query=transport	**People Culture and Communities ELG** 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 Machine and inventions that have changed our landscape e.g. machines to destroy (deforestation, demolition vehicles etc.). Machines to create – earthwork machines and other machines/ vehicles used to build. How machines have removed geographical features or created them – e.g. sea defences.

History	Music
Past and Present ELG Talk about the lives of the people around them and their roles in society; Know some similarities and differences between things in the past and now, drawing on their experiences and what has been read in class. Understand the past through settings, characters and events encountered in books read in class and storytelling. Lives of significant Britain's – Joseph Swan and the light bulb. William Fox Talbot – photography from negatives. Trevithick the steam engine. National and international events of significance. The great exhibition and inventions begun therein. Abraham Darby and the birth of the industrial revolution in Britain. Thomas Telford etc. How has transport made the world more connected? https://teachers.thenational.academy/lessons/how-has-improved-transport-made-the-world-more-connected-part-1-c5j68r?from_query=transport https://teachers.thenational.academy/lessons/how-has-improved-transport-made-the-world-more-connected-part-2-cmv34t?from_query=transport	**See also Charanga Schemes of work** **Being Imaginative and Expressive ELG** 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. Use voice creatively. Play tuned and untuned instruments. Experiment with and combine interrelated dimensions of music. Listen to a range of music recorded and live. 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. Focuses could include comparing a work recorded in diff ways for comparison of sound. Music from machines – techno music synthesised music e.g. Jean Michel Jarre, Jeff Wayne's war of the worlds.

Physical Education	Science
See also RealPE Schemes of work. **Gross Motor Skills ELG** 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. Master basic movement. Participate in team games. Perform dances and sequences using patterns of movement. This could be topic linked if desired.	**The Natural World ELG** Explore the natural world around them, making observations and drawing pictures of animals 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.

English	Maths
https://www.booksfortopics.com/transport **Fiction**: Runaway Train – Benedict Blathwayt Mr Gumpy's Motor Car – John Birningham Get Off My Train – John Birningham 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 **Non-Fiction:** Amelia Earhart: Little People, Big Dreams by Isabel Sachez 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 **Poetry**: Choo Choo Clickerty Clack – Margaret Mayo Dig Dig Digging Emergency! Zoom Rocket Zoom The Smeds and The Smoos – Julia Donaldson	Measure and scale (when using maps) The Hundred Decker Bus – Mike Smith - Number

The Food Train The Train - Svebbing **Song**: The Wheels on the Bus	

Courageous Advocacy	Developing Spirituality
Should robots be used more to help? How have machines and inventions made the world a better place? Link to our bodies – machines that help us stay fit. Raise money for defib kits Raise money/recycle computers which can be sent to countries where they struggle to have access to technology. Raising awareness of recycling materials that can be re-used… such as items in computers and, mobile phones look at the issue of child labour especially in developing countries where children make a living through scouring rubbish dumps for metals.	Being thankful for the things that we have that help us in our daily lives but show an awareness of those that don't and are at a disadvantage. Begin to show an awareness of the effects of modern technology e.g. pollution. Show an awareness of how modern technology has saved lives and be thankful for the people who have invented things such as vaccines, x-ray machines, incubators.

Other Ideas
Trip to Thursford to see the traction engines. Hethell engineering visit KS1 STEM events British Transport Museum visit? CBeebies – Maddie do you know? A series about how machines work and how things are made. https://www.bbc.co.uk/cbeebies/shows/bitz-and-bob CBeebies – Catie's Amazing Machines Types of transport (EYFS) https://teachers.thenational.academy/lessons/transport-model-60wpat?from_query=transport https://teachers.thenational.academy/units/transport-0359?from_query=transport Glitter Germs – how to use a washing machine https://teachers.thenational.academy/lessons/glitter-germs-c9j3at?from_query=machines

Explain how something works (EYFS)
https://teachers.thenational.academy/lessons/to-explain-how-something-works-cmrkee?from_query=inventions