

## STEM 3 Year Curriculum Map

		Chemical Sciences	Biological Sciences	Chemical Sciences	Physical Sciences	Physical Sciences	Chemical Sciences	Biological Sciences
		Environmental Science	Environmental Science	Environmental Science	Environmental Science	Environmental Science	Environmental Science	Environmental Science
		EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Cycle 1	Class 1	<p><b><u>(Nursery ) Project 1: Rope Bridge Task:</u></b> Design and make a model of a rope bridge that hangs between two cliffs.</p>	<p><b><u>Project 1: Giant Panda Enclosure Task:</u></b> Design and make a model of a zoo enclosure for a giant panda.</p>	<p><b><u>Project 1: Crazy Kites Task:</u></b> Design and make a crazy kite that will fly on a windy day.</p>	<p><b><u>Project 1: Magnet Maze Game Task:</u></b> Design and make a maze to move a metal object through using a magnet</p>	<p><b><u>Project 1: Simple Thermometer Task:</u></b> Design and make a simple thermometer using a glass bottle</p>	<p><b><u>Project 1: Egg Menu Task:</u></b> Design and make a breakfast menu for a café, featuring all the ways an egg can be cooked</p>	<p><b><u>Project 1: Antarctic Memes Task:</u></b> Design and make a series of memes using images of animals that live in Antarctica</p>
		<p>S: Knowledge of balance</p> <p>T: Designing a rope bridge</p> <p>E: Using science and maths to make a rope bridge</p> <p>M: Counting and Measuring</p>	<p>S: Knowledge of habitats (for pandas)</p> <p>T: Designing a giant panda enclosure</p> <p>E: Using science and maths to make a giant panda enclosure</p> <p>M: Measuring</p>	<p>S: Knowledge of different types of materials to see which has the best aerodynamics (the way objects move through air)</p> <p>T: Designing the kite.</p> <p>E: Using science and maths to make the kite.</p>	<p>S: Knowledge of magnets- different poles and forces</p> <p>T: Designing the maze.</p> <p>E: Using science and maths to make the maze.</p> <p>M: Measuring the materials (cardboard and tape). Measuring the size of the</p>	<p>S: Knowledge of how thermometers work</p> <p>T: Designing a simple thermometer.</p> <p>E: Using science and maths to make a simple thermometer.</p> <p>M: Measuring materials</p>	<p>S: Knowledge of irreversible changes</p> <p>T: Designing an egg menu using Publisher/ Word</p> <p>E: Using science and maths to make an egg menu.</p> <p>M: knowledge space, size and dimensions to create a menu</p>	<p>S: Knowledge of animals that live in Antarctica</p> <p>T: Designing an Antarctic meme.</p> <p>E: Using science and maths to make an Antarctic meme</p> <p>M: Counting and time</p>

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				M: Knowledge of 2D shapes, measuring the materials (cereal box, cellophane, string and tape). Measuring the size of the crazy kite (size of an A4 piece of paper).	final maze (40cm x 40cm).			
Class 2	<p><b><u>(Nursery) Project 2: Pirate Ship</u></b>  <b><u>Task:</u></b>            Design and make a pirate ship that floats in water.</p>	<p><b><u>Project 2: Owl Mask</u></b>  <b><u>Task:</u></b>            Design and make an owl mask with binocular vision</p>	<p><b><u>Project 2: Cardboard car</u></b>  <b><u>Task:</u></b>            Design and make a cardboard toy car that is powered by a balloon</p>	<p><b><u>Project 2: Marble Run</u></b>  <b><u>Task:</u></b>            Design and make a vertical marble run that will make the marble travel the slowest</p>	<p><b><u>Project 2: Winter Hat</u></b>  <b><u>Task:</u></b>            Design and make a hat to keep your head warm in the winter</p>	<p><b><u>Project 2: Gas- powered Boat</u></b>  <b><u>Task:</u></b>            Design and make a gas powered boat</p>	<p><b><u>Project 2: Migration Card</u></b>  <b><u>Task:</u></b>            Design and make a fictitious migration card for a bird that migrates to and lands in the United Kingdom.</p>	
		S: Knowledge of different materials  T: Designing a pirate ship  E: Using science and maths to make a pirate ship	S: Knowledge of owls  T: Designing an owl mask  E: Using science and maths to make an owl mask  M: Measuring	S: Knowledge of different materials, forces and energy.  T: Designing the cardboard car.  E: Using science and maths to make the car.	S: Knowledge of friction  T: Designing the marble run.  E: Using science and maths to make the marble run.	S: Knowledge of insulators and different materials  T: Designing a winter hat  E: Using science and maths to make a winter hat.	S: Knowledge of chemical reactions (creating gas)  T: Designing a gas-powered boat.  E: Using science and maths to	S: Knowledge of animals and migration  T: Designing a migration card  E: Using science and maths to make a migration card

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		M: Counting and Measuring		M: Measuring the materials (cardboard tubes and tape). Measuring the size of the car so that it can hold a figurine inside.	M: Measuring the materials (cardboard and newspaper and fabrics).	M: Measuring materials	make a gas-powered boat.  M: Measuring materials	M: Measuring
		Chemical Sciences	Biological Sciences	Chemical Sciences	Physical Sciences	Physical Sciences	Chemical Sciences	Biological Sciences
		Environmental Science	Environmental Science	Environmental Science	Environmental Science	Environmental Science	Environmental Science	Environmental Science
		EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Class 1	<b>(Reception)</b> <b>Project 1:</b> <b><u>Wellington Boots</u></b> <b>Task:</b> Design and make Wellington boots that keep your feet dry while jumping in puddles	<b>Project 1:</b> <b>Day and Night Storyboard</b> <b>Task:</b> Design and make a story board that has a day and night scene	<b>Project 1:</b> <b>Mine Pit Model</b> <b>Task:</b> Design and make a model of a mine pit using yellow playdough	<b>Project 1:</b> <b>Make a rock</b> <b>Task:</b> Create a rock that replicates a sedimentary rock	<b>Project 1:</b> <b>Paper mache globe</b> <b>Task:</b> Design and make a globe of the world, with an axis it can spin on and a stand for it to be places on.	<b>Project 1:</b> <b>Alien Planet</b> <b>Task:</b> Design and make an alien from one of the planets in our solar system and create an audio recording of the alien describing its planet.	<b>Project 1:</b> <b>DIY Seismograph</b> <b>Task:</b> Design and make a simple seismograph that measures shaking from an earthquake
		S: Knowledge of different materials  T: Designing Wellington boots	S: Knowledge of how the Earth rotates to get day and night  T: Designing a day and night storyboard	S: Knowledge of natural resources and mine pits  T: Designing a mine pit model.	S: Knowledge of what is needed to make a sedimentary rock.  T: Designing the rock- choose the	S: Knowledge of planets (Earth)  T: Designing a globe	S: Knowledge of planets and the solar system  T: Designing an alien planet.	S: Knowledge of earthquakes  T: Designing a DIY Seismograph.  E: Using science and maths to

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		E: Using science and maths to make Wellington boots  M: Measuring	E: Using science and maths to make a day and night storyboard  M: Measuring	E: Using science and maths to make a mine pit model.  M: Counting	materials (ingredients).  E: Using science and maths to make the rock.  M: Measuring the quantity of materials. Measuring the size of the final rock.	E: Using science and maths to make a globe.  M: Measuring materials	E: Using science and maths to make an alien planet  M: Measuring materials	make a DIY Seismograph  M: Measuring
	Class 2	<b><u>(Reception)</u></b> <b><u>Project 2: Summer Sand Castle</u></b> <b><u>Task:</u></b> Design and make a sandcastle that could be made at the beach on a hot summer day	<b><u>Project 2: Constellations</u></b> <b><u>Task:</u></b> Design and make three star constellations	<b><u>Project 2: A working Well</u></b> <b><u>Task:</u></b> Design and make a model of a working well to source water	<b><u>Project 2: Soil Erosion Demonstrator</u></b> <b><u>Task:</u></b> Create a soil erosion demonstrator using recycled plastic bottles	<b><u>Project 2: Earth Cookies</u></b> <b><u>Task:</u></b> Design and make some cookies that resemble the oceans and continents of planet earth	<b><u>Project 2: Night and Day Time -lapse video</u></b> <b><u>Task:</u></b> Design and make a time-lapse video showing the sky turning from day to night	<b><u>Project 2: Flood Garden Raft</u></b> <b><u>Task:</u></b> Design and make a model floating garden that could survive a sudden flash flood
		S: Knowledge of weather  T: Designing a summer sandcastle  E: Using science and maths to	S: Knowledge of constellations  T: Designing constellations  E: Using science and maths to	S: Knowledge of where water comes from.  T: Designing a working well.  E: Using science and maths to	S: Knowledge of soil erosion  T: Designing the soil erosion demonstrator.  E: Using science and maths to	S: Knowledge of planets (Earth)  T: Designing Earth cookies  E: Using science and maths to	S: Knowledge of planets and the solar system  T: Designing an alien planet.  E: Using science and maths to	S: Knowledge of plants  T: Designing a flood garden raft.  E: Using science and maths to

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		make a summer sandcastle  M: Measuring and counting	make constellations  M: Counting and Measuring	make a working well  M: Measuring the materials (Cardboard, water (ml) and rope).	make the demonstrator.  M: Measuring the materials (soil, wood chips, water and string)	make Earth cookies.  M: Measuring materials	make an alien planet  M: Measuring materials	make a flood garden raft  M: Measuring
		Chemical Sciences	Biological Sciences	Chemical Sciences	Physical Sciences	Physical Sciences	Chemical Sciences	Biological Sciences
		Environmental Science	Environmental Science	Environmental Science	Environmental Science	Environmental Science	Environmental Science	Environmental Science
		EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Cycle 2	Class 1	<b><u>Project 3: Mud Hut</u></b> <b><u>Task:</u></b> <u>Design and make a model of a mud hut-style house</u>	<b><u>Project 3: Hermit Crab Home</u></b> <b><u>Task:</u></b> <u>Design and make a home for a hermitcrab that caters for its needs</u>	<b><u>Project 3: Baking Biscuits</u></b> <b><u>Task:</u></b> <u>Design and make a simple biscuits by mixing materials together.</u>	<b><u>Project 3: Simple Newton's Cradle</u></b> <b><u>Task:</u></b> <u>Design and make a simple Newton's cradle to show how forces travel</u>	<b><u>Project 3: How to video: Create fire</u></b> <b><u>Task:</u></b> <u>Design and make a simple how to video explaining how to start a fire using just friction and sticks</u>	<b><u>Project 3: Plastic Bag Fusing</u></b> <b><u>Task:</u></b> <u>Design and make a product using fused plastic bags.</u>	<b><u>Project 3: 3D Desert viewer</u></b> <b><u>Task:</u></b> <u>Make a stereoscope viewer and view images of the desert environment in 3D</u>
	Class 2	<b><u>Project 4: Plastic Poncho</u></b> <b><u>Task:</u></b> <u>Design and make a poncho that keeps you</u>	<b><u>Project 4: Triple Salad</u></b> <b><u>Task:</u></b> <u>Design and make a salad using three different ingredients</u>	<b><u>Project 4: Parachute Drop</u></b> <b><u>Task:</u></b> <u>Design and make a parachute that will drop</u>	<b><u>Project 4: Hoverboard model</u></b> <b><u>Task:</u></b> <u>Design and make a hoverborad model using the science of</u>	<b><u>Project 4: Invisible Ink</u></b> <b><u>Task:</u></b> <u>Design and make an invisible ink picture about heat</u>	<b><u>Project 4: Create an 'ice-Cream Float' flavour</u></b> <b><u>Task:</u></b> <u>Design and make a new ice cream float drink</u>	<b><u>Project 4: Yeast Challenge</u></b> <b><u>Task:</u></b> <u>Create a method to make bread dough rise the quickest.</u>

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		<u>dry when it's raining.</u>		<u>carefully to the ground</u>	<u>magnetic repulsion</u>		<u>flavour by combining ice cream and soft drink</u>	
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		Chemical Sciences	Biological Sciences	Chemical Sciences	Physical Sciences	Physical Sciences	Chemical Sciences	Biological Sciences
		Environmental Science	Environmental Science	Environmental Science	Environmental Science	Environmental Science	Environmental Science	Environmental Science
		EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Class 1	<b><u>Project 3: Umbrella Task:</u></b> <u>Design and make an umbrella that keeps you dry when it's raining</u>	<b><u>Project 3: Snow Globe Task:</u></b> <u>Design and make a snow globe in a jar</u>	<b><u>Project 3: Material Box Task:</u></b> <u>Design and make a collection box to display various materials found in your local environment</u>	<b><u>Project 3: DIY sunglasses Task:</u></b> <u>Design and make a pair of sunglasses</u>	<b><u>Project 3: Earth Layer Model Task:</u></b> <u>Design and make a model to clearly show the layers of planet Earth</u>	<b><u>Project 3: Constellation Viewer Task:</u></b> <u>Design and make a constellation viewer that shows six constellations found in the solar system</u>	<b><u>Project 3: Earthquake Task:</u></b> <u>Create a shake table and design and make buildings to place on top that can withstand an earthquake.</u>
	Class 2	<b><u>Project 4: Sleeping masks Task:</u></b> <u>Design and make a set of sleeping</u>	<b><u>Project 4: Model Tree House Task:</u></b> <u>Design and make a model tree house</u>	<b><u>Project 4: Rainwater Tank Task:</u></b> <u>Design and make a rainwater tank</u>	<b><u>Project 4: 24 Hours in the life of... Task:</u></b> <u>Create a short story about 24 hours in the</u>	<b><u>Project 4: Volcano Village Task:</u></b> <u>Design and make a model volcano village</u>	<b><u>Project 4: Solar Power Tower Task:</u></b> <u>Design and make a tower that will use</u>	<b><u>Project 4: Tectonic plate Jigsaw Task:</u></b> <u>Design and make a jigsaw puzzle of a</u>

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		<u>masks that let you sleep in darkness during the day.</u>	sitting in a tree	<u>that collects clean water</u>	<u>life of a character and act it out to create a film</u>	<u>to show the effects of lava flow on surrounding areas.</u>	<u>the sun to power a pinwheel connected to the top</u>	<u>map of the world's tectonic plates</u>
		Chemical Sciences	Biological Sciences	Chemical Sciences	Physical Sciences	Physical Sciences	Chemical Sciences	Biological Sciences
		Environmental Science	Environmental Science	Environmental Science	Environmental Science	Environmental Science	Environmental Science	Environmental Science
		EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Cycle 3	Class 1	<b><u>Project 5: Newspaper Hat</u></b> <b><u>Task:</u></b> <u>Design and make a broad brimmed hat for each group member using newspaper.</u>	<b><u>Project 5: Bird Table Model</u></b> <b><u>Task:</u></b> <u>Design and make a model bird table to make sure birds get enough food over the winter.</u>	<b><u>Project 5: Indonesian Stilt House</u></b> <b><u>Task:</u></b> <u>Design and make an Indonesian stilt house that can survive a flood</u>	<b><u>Project 5: Blow a Boat Task:</u></b> <u>Design and make a sail for a boat that can only be moved by blowing through a straw</u>	<b><u>Project 5: Solar Toastie Maker</u></b> <b><u>Task:</u></b> <u>Design and make a solar toastie maker big enough to fit a slice of bread</u>	<b><u>Project 5: Soluble Crystal Designs</u></b> <b><u>Task:</u></b> <u>Design and make a pattern, word or object by growing crystals</u>	<b><u>Project 5: Greenhouse Effect in a Bottle</u></b> <b><u>Task:</u></b> <u>Design and make a small-scale greenhouse effect in a bottle.</u>
	Class 2	<b><u>Project 6: Ice Cube Igloo</u></b> <b><u>Task:</u></b> <u>Design and make a small igloo using ice cubes.</u>	<b><u>Project 6: Human Movement Video</u></b> <b><u>Task:</u></b> <u>Design and make a video that names</u>	<b><u>Project 6: 3D glasses</u></b> <b><u>Task:</u></b> <u>Design and make a set of glasses that can view images in 3D</u>	<b><u>Project 6: Obstacle Course</u></b> <b><u>Task:</u></b> <u>Design and make an obstacle course with</u>	<b><u>Project 6: Cooking pan</u></b> <b><u>Task:</u></b> <u>Design and make a pan that could be used for</u>	<b><u>Project 6: Hot Air Balloon</u></b> <b><u>Task:</u></b> <u>Design and make a small hot air balloon.</u>	<b><u>Project 6: News Story about a Natterjack Toad</u></b> <b><u>Task:</u></b> <u>Design and make a short news story</u>

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			and demonstrates different types of human movement		three stations that involve bouncing, throwing and rolling a ball.	cooking at a campsite		about the amazing hibernation ability to the natterjack toad
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		Chemical Sciences	Biological Sciences	Chemical Sciences	Physical Sciences	Physical Sciences	Chemical Sciences	Biological Sciences
		Environmental Science	Environmental Science	Environmental Science	Environmental Science	Environmental Science	Environmental Science	Environmental Science
		EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Class 1	<b>Project 5: Spring Flowerpots Task:</b> <u>Design and make a set of flowerpots that show different types of flowers during spring.</u>	<b>Project 5: Miniature Zen Garden Task:</b> <u>Design and make a miniature Zen garden</u>	<b>Project 5: Shoebox Solar Oven Task:</b> <u>Design and make a shoebox oven that can melt an ice cube</u>	<b>Project 5: Parasol Task:</b> <u>Design and make an umbrella that blocks out the sunlight instead of the rain</u>	<b>Project 5: Earthquake Maker Task:</b> <u>Create a model of an earthquake using cardboard sheets and sand</u>	<b>Project 5: Comic Book Character Task:</b> <u>Design and make a comic book character whose powers are obtained from the sun</u>	<b>Project 5: Drought-tolerant Garden Task:</b>
	Class 2	<b>Project 6: Water Slides Task:</b> <u>Design and make a water slide that carries two people</u>	<b>Project 6: National Park Task:</b> <u>Design and make a model of a national park using air dry clay</u>	<b>Project 6: Waterwise Video Task:</b> <u>Design and make a waterwise video to teach</u>	<b>Project 6: Earth, Moon &amp; Sun Mobile Task:</b> <u>Design and make a mobile that shows the relative sizes of</u>	<b>Project 6: Disaster-proof Building Task:</b> <u>Design and make a structure that is safe from</u>	<b>Project 6: Solar System Mobile Task:</b> <u>Design and make a mobile of the solar system, using</u>	<b>Project 6: Flood-proof Home Task:</b> <u>Design and make a model house that can withstand</u>



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		<u>figures safely down the slide and into a small pool.</u>		<u>younger children how to save water</u>	<u>Earth, the moon and the sun, and the relative distances they are from each other</u>	<u>wind, foods and earthquakes.</u>	<u>accurate relative sizes.</u>	<u>rising flood waters.</u>
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