

St. Benedict's Primary School
Design and Technology
KNOWLEDGE AND SKILLS BUILDER

Design and Technology element from the National Curriculum – EVALUATE

Phase	Context for learning	Knowledge and Skills
EYFS	Reception Topic Space Autumn 2 Big Question What can you see in space? Context –Building a model rocket - can the design be improved? Exploring and using media and materials	Skills Design carefully, thinking about why your design is being built Knowledge Think about how you can improve your design
KEY STAGE 1	Year 1 Spring 1 ILP Superheroes Big Question – What is a superhero? Context – Mask making Programmes of Study Explore and evaluate a range of existing products.	Skills Describe the similarities and differences between two products. Knowledge Two products can be compared by looking at a set of criteria and scoring both products against each one.
	Year 1 Summer 2 ILP Dinosaur Planet Standalone lesson Big Question– Context – Clay models Programmes of Study Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work	Skills Talk about their own and each other's work, identifying strengths or weaknesses and offering support. Knowledge A strength is a good quality of a piece of work. A weakness is an area that could be improved.
	Year 2 Autumn 2 ILP Land Ahoy Big Question– How is an explorer different to a pirate? Context – Display the models they have made in their Maritime museum and evaluate all the models/artefacts they have made. Programmes of Study Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work	Skills Explain how closely their finished products meet their design criteria and say what they could do better in the future. Knowledge Finished products can be compared with design criteria to see how closely they match. Improvements can then be planned.
	Year 2 Spring 2 ILP Towers, Tunnels and Turrets Big Question– What was life like inside a castle? Context – Evaluating our structures Programmes of Study Evaluate their ideas and products against design criteria.	Skills Explain how closely their finished products meet their design criteria and say what they could do better in the future. Knowledge Finished products can be compared with design criteria to see how closely they match. Improvements can then be planned.
	Year 2 Spring 2 ILP Towers, Tunnels and Turrets Big Question– What was life like inside a castle?	Skills Explain why a designer or inventor is important.

	<p>Context – Listen to an account of the celebrated and significant engineer, Isambard Kingdom Brunel, looking at some of the amazing structures he created</p> <p>Programmes of Study</p> <p>Explore and evaluate a range of existing products.</p>	<p>Knowledge Many key individuals have helped to shape the world. These include engineers, scientists, designers, inventors and many other people in important roles.</p>
<p>LOWER KEY STAGE 2</p>	<p>Year 3 Spring 2 ILP Mighty Metals</p> <p>Big Question – How do different forces effect metals?</p> <p>Context – Express task: Evaluating their design for Iron Man’s companion, reflecting upon how successful they were.</p> <p>Programmes of Study</p> <p>Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p>	<p>Skills Suggest improvements to their products and describe how to implement them, beginning to take the views of others into account.</p> <p>Knowledge Asking questions can help others to evaluate their products, such as asking them whether the selected materials achieved the purpose of the model.</p>
	<p>Year 3 Summer 1 ILP Scrumdiddlyumptious!</p> <p>Big Question -</p> <p>Context – Inventing a smoothie: Reflect upon success of smoothie</p> <p>Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p>	<p>Skills Suggest improvements to their products and describe how to implement them, beginning to take the views of others into account.</p> <p>Knowledge Asking questions can help others to evaluate their products, such as asking them whether the selected materials achieved the purpose of the model.</p>
	<p>Year 3 Summer 2 ILP Tribal Tales</p> <p>Big Question - What is a tribe?</p> <p>Context –Evaluating monument/structure constructed</p> <p>Programmes of Study</p> <p>Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p>	<p>Skills Suggest improvements to their products and describe how to implement them, beginning to take the views of others into account.</p> <p>Knowledge Asking questions can help others to evaluate their products, such as asking them whether the selected materials achieved the purpose of the model.</p>
	<p>Year 3 Standalone lesson</p> <p>Big Question –</p> <p>Context –</p> <p>Programmes of Study</p> <p>Understand how key events and individuals in design and technology have helped shape the world</p>	<p>Skill Describe how key events in design and technology have shaped the world.</p> <p>Knowledge Key inventions in design and technology have changed the way people live.</p>
	<p>Year 4 Autumn 1 ILP I Am Warrior</p> <p>Big Question – Why were the Romans so successful?</p> <p>Context – Sort items into two groups: Roman and non-Roman origins.</p> <p>Programmes of Study</p> <p>Investigate and analyse a range of existing products.</p>	<p>Skills Investigate and identify the design features of a familiar product.</p> <p>Knowledge Design features are the aspects of a product's design that the designer would like to emphasise, such as the use of a particular material or feature that makes the product easier to use or more durable.</p>
	<p>Year 4 Autumn 2 ILP Potions</p> <p>Big Question – What is the difference between a solid, liquid and gas?</p> <p>Context – Investigating a range of everyday items that contain gases.</p>	<p>Skills Investigate and identify the design features of a familiar product.</p>

<p>Programmes of Study Investigate and analyse a range of existing products.</p>		<p>Knowledge Design features are the aspects of a product's design that the designer would like to emphasise, such as the use of a particular material or feature that makes the product easier to use or more durable.</p>
<p>Year 4 Autumn 2 ILP Potions Big Question – What is the difference between a solid, liquid and gas? Context – Evaluating the frozen treats they created Programmes of Study Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p>		<p>Skills Identify what has worked well and what aspects of their products could be improved, acting on their own suggestions and those of others when making improvements. Knowledge Evaluation can be done by considering whether the product does what it was designed to do, whether it has an attractive appearance, what changes were made during the making process and why the changes were made. Evaluation also includes suggesting improvements and explaining why they should be made.</p>
<p>Year 4 Spring 1 ILP Traders and Raiders Big Question – Where did the Anglo Saxons settle and why? Context – Evaluate the success of the trade fair Programmes of Study Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p>		<p>Skills Identify what has worked well and what aspects of their products could be improved, acting on their own suggestions and those of others when making improvements. Knowledge Evaluation can be done by considering whether the product does what it was designed to do, whether it has an attractive appearance, what changes were made during the making process and why the changes were made. Evaluation also includes suggesting improvements and explaining why they should be made.</p>
<p>Year 4 Spring 2 ILP Burps, Bottoms and Bile Big Question – How does the body digest food? Context- Finding tooth friendly alternative snacks Programmes of Study Investigate and analyse a range of existing products</p>		<p>Skills Create and complete a comparison table to compare two or more products. Knowledge A comparison table can be used to compare products by listing specific criteria on which each product can be judged or scored</p>
<p>Year 4 Spring 2 ILP Burps, Bottoms and Bile Big Question – How does the body digest food? Context- Test the model of the digestive system Programmes of Study Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p>		<p>Skills Identify what has worked well and what aspects of their products could be improved, acting on their own suggestions and those of others when making improvements. Knowledge Evaluation can be done by considering whether the product does what it was designed to do, whether it has an attractive appearance, what changes were made during the making process and why the changes were made. Evaluation also includes suggesting improvements and explaining why they should be made.</p>
<p>Year 4 Spring 2 ILP Burps, Bottoms and Bile Big Question – How does the body digest food? Context- Suggest improvements for the digestive system model Programmes of Study Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p>		<p>Skills Identify what has worked well and what aspects of their products could be improved, acting on their own suggestions and those of others when making improvements. Knowledge Evaluation can be done by considering whether the product does what it was designed to do, whether it has an attractive appearance, what changes were made during the making process and why the changes</p>

		were made. Evaluation also includes suggesting improvements and explaining why they should be made.
	<p>Year 4 Summer 1 ILP Misty Mountain Sierra Big Question- What are the features of a mountain? Context – Review 3D model mountain, reflecting on the accuracy and scale of their designs. Programmes of Study Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p>	<p>Skills Identify what has worked well and what aspects of their products could be improved, acting on their own suggestions and those of others when making improvements. Knowledge Evaluation can be done by considering whether the product does what it was designed to do, whether it has an attractive appearance, what changes were made during the making process and why the changes were made. Evaluation also includes suggesting improvements and explaining why they should be made.</p>
	<p>Year 4 Summer 2 ILP Blue Abyss Big Question - Context – Investigate the materials that Cornelius Drebbel used and how the first submarines worked. Programmes of Study Understand how key events and individuals in design and technology have helped shape the world.</p>	<p>Skills Explain how and why a significant designer or inventor shaped the world. Knowledge Significant designers and inventors can shape the world.</p>
	<p>Year 4 Summer 2 ILP Blue Abyss Big Question - Context – Make a model submarine Programmes of Study Investigate and analyse a range of existing products.</p>	<p>Skills Investigate and identify the design features of a familiar product. Knowledge Design features are the aspects of a product's design that the designer would like to emphasise, such as the use of a particular material or feature that makes the product easier to use or more durable.</p>
	<p>Year 4 Summer 2 ILP Blue Abyss Big Question - Context – Innovate task 3D Art Exhibition: Test sea creature to see if it glows in the dark Programmes of Study Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p>	<p>Skills Identify what has worked well and what aspects of their products could be improved, acting on their own suggestions and those of others when making improvements. Knowledge Evaluation can be done by considering whether the product does what it was designed to do, whether it has an attractive appearance, what changes were made during the making process and why the changes were made. Evaluation also includes suggesting improvements and explaining why they should be made.</p>
UPPER KEY STAGE 2	<p>Year 5 Autumn 1 ILP Stargazers Big Question: What happens when there is no gravity? Context – Rocket launch: Check out a range of rocket launchers and rocket kits. Programmes of Study Investigate and analyse a range of existing products.</p>	<p>Skills Explain how the design of a product has been influenced by the culture or society in which it was designed or made. Knowledge Culture is the language, inventions, ideas and art of a group of people. A society is all the people in a community or group. Culture affects the design of some products. For example, knives and forks are used in the western world, whereas chopsticks are used mainly in China and Japan. The design of products needs to take into account the culture of the target</p>

		audience. For example, colours might mean very different things in different cultures.
	<p>Year 5 Autumn 1 ILP Stargazers Big Question: What happens when there is no gravity? Context – Rocket launch: Test rocket prototype to ensure is working correctly Programmes of Study Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p>	<p>Skills Test and evaluate products against a detailed design specification and make adaptations as they develop the product. Knowledge Testing a product against the design criteria will highlight anything that needs improvement or redesign. Changes are often made to a design during manufacture.</p>
	<p>Year 5 Autumn 1 ILP Stargazers Big Question: What happens when there is no gravity? Context – Rocket launch: Evaluate rocket and consider improvements Programmes of Study Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.</p>	<p>Skills Test and evaluate products against a detailed design specification and make adaptations as they develop the product. Knowledge Testing a product against the design criteria will highlight anything that needs improvement or redesign. Changes are often made to a design during manufacture.</p>
	<p>Year 5 Standalone lesson Big Question - Context – Compare Tudor homes and evaluate against existing designs. Describe the social influence of Designer William Morris and architect Richard Norman Shaw. Programmes of Study Understand how key events and individuals in design and technology have helped shape the world</p>	<p>Skills Describe the social influence of a significant designer or inventor. Knowledge Many new designs and inventions influenced society. For example, labour-saving devices in the home reduced the amount of housework, which was traditionally done by women. This enabled them to have jobs.</p>
	<p>Year 6 Standalone lesson Big Question - Context – Programmes of Study Understand how key events and individuals in design and technology have helped shape the world</p>	<p>Skills Present a detailed account of the significance of a favourite designer or inventor. Knowledge The significance of a designer or inventor can be measured in various ways. Their work may benefit society in health, transport, communication, education, the built environment or technology. It may enhance culture in different areas, such as fashion, ceramics or computer games.</p>
	<p>Year 6 Standalone lesson A Child's War Big Question - Context – Create a detailed comparative report about two or more products or inventions. Programmes of Study Investigate and analyse a range of existing products</p>	<p>Skill Analyse how an invention or product has significantly changed or improved people's lives. Knowledge People's lives have been improved in countless ways due to new inventions and designs. For example, the Morrison shelter, designed by John Baker in 1941, was an indoor air-raid shelter used in over half a million homes during the Second World War. It saved the lives of many people caught in bombing raids.</p>
	<p>Year 6 Standalone lesson Gallery Rebels Big Question -</p>	<p>Skill Demonstrate modifications made to a product as a result of ongoing evaluation by themselves and to others.</p>

	<p>Context – Evaluate and modify their sculptures Programmes of Study Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work</p>	<p>Knowledge Design is an iterative process, meaning alterations and improvements are made continually throughout the manufacturing process. Evaluating a product while it's being manufactured, and explaining these evaluations to others, can help to refine it.</p>
--	--	--