

Pippins Primary School Curriculum Overview



Subject: D.T.

Year 1	Autumn 1	Spring 1	Summer 1
	Topic: Shade and Shelter	Topic: Taxi	Topic: Chop, Slice and Mash
	Concept: Investigating shelters	Concept: Investigating wheels, axles and chassis	Concept: Investigating sources of food
	Skills and knowledge <ul style="list-style-type: none"> • Construct simple structures, models or other products using a range of materials. • Create a design to meet simple design criteria. • Describe the similarities and differences between two products. • Follow the rules to keep safe during a practical task. • Name and explore a range of everyday products and describe how they are used. • Select and use a range of materials, beginning to explain their choices. • Talk about their own and each other's work, identifying strengths or weaknesses and offering support. 	Skills and Knowledge <ul style="list-style-type: none"> • Create a design to meet simple design criteria. • Describe the similarities and differences between two products. • Name and explore a range of everyday products and describe how they are used. • Talk about their own and each other's work, identifying strengths or weaknesses and offering support. • Use wheels and axles to make a simple moving model. 	Skills and Knowledge <ul style="list-style-type: none"> • Create a design to meet simple design criteria. • Follow the rules to keep safe during a practical task. • Measure and weigh food items using non-standard measures, such as spoons and cups. • Select healthy ingredients for a fruit or vegetable salad. • Sort foods into groups by whether they are from an animal or plant source. • Talk about their own and each other's work, identifying strengths or weaknesses and offering support. • Explain why hand washing and cleanliness are important.
	Outcomes: To construct simple structures or model made from a range of materials.	Outcomes: To use wheels and axles to make a simple moving model.	Outcomes: To design and make salads and sandwiches

Year 2	Autumn 1	Spring 1	Summer 1
	Topic: Remarkable recipes	Topic: Beach hut	Topic: Cut, stitch and join (puppets)
	Concept: Investigating sources of food	Concept: Investigating beach huts	Concept: Everyday fabric products.
	<p>Skills and Knowledge</p> <ul style="list-style-type: none"> • Create a design to meet simple design criteria. • Follow the rules to keep safe during a practical task. • Measure and weigh food items using non-standard measures, such as spoons and cups. • Select healthy ingredients for a fruit or vegetable salad. • Select the appropriate tool for a simple practical task. • Sort foods into groups by whether they are from an animal or plant source. • Talk about their own and each other's work, identifying strengths or weaknesses and offering support. • Explain why hand washing and cleanliness are important. 	<p>Skills and Knowledge</p> <ul style="list-style-type: none"> • Choose appropriate components and materials and suggest ways of manipulating them to achieve the desired effect. • Explain how closely their finished products meet their design criteria and say what they could do better in the future. • Explore how a structure can be made stronger, stiffer and more stable. • Generate and communicate their ideas through a range of different methods. 	<p>Skills and Knowledge</p> <ul style="list-style-type: none"> • Add simple decorative embellishments, such as buttons, prints, sequins and appliqué. • Choose appropriate components and materials and suggest ways of manipulating them to achieve the desired effect. • Compare different or the same products from the same or different brands. • Explain how an everyday product could be improved. • Explain how closely their finished products meet their design criteria and say what they could do better in the future. • Explain why a designer or inventor is important. • Generate and communicate their ideas through a range of different methods. • Select the appropriate tool for a task and explain their choice. • Use different methods of joining fabrics, including glue and running stitch.
	Outcomes: To design and make salads and sandwiches.	Outcomes: To make a beach hut.	Outcomes: Design and make a sewn bag tag for a school bag or lunchbox.

Year 3	Autumn 1	Spring 1	Summer 1
	Topic: Cook and eat well	Topic: Making it move	Topic: Greenhouse
	Concept: Healthy balanced diets.	Concept: Machines and mechanisms.	Concept: Greenhouse design.
	Skills and Knowledge <ul style="list-style-type: none"> Describe how key events in design and technology have shaped the world. Develop design criteria to inform a design. Identify and name foods that are produced in different places. Identify the main food groups (carbohydrates, protein, dairy, fruits and vegetables, fats and sugars). Prepare and cook a simple savoury dish. Suggest improvements to their products and describe how to implement them, beginning to take the views of others into account. Use appliances safely with adult supervision. Explain the importance and characteristics of a healthy, balanced diet. 	Skills and Knowledge <ul style="list-style-type: none"> Develop design criteria to inform a design. Explain how an existing product benefits the user. Explore and use a range of mechanisms (levers, sliders, axles, wheels and cams) in models or products. Plan which materials will be needed for a task and explain why. Suggest improvements to their products and describe how to implement them, beginning to take the views of others into account. Use tools safely for cutting and joining materials and components. Make working models with simple mechanisms or electrical circuits. 	Skills and Knowledge <ul style="list-style-type: none"> Create shell or frame structures using diagonal struts to strengthen them. Develop design criteria to inform a design. Explain how an existing product benefits the user. Explain the similarities and difference between the works of two designers. Plan which materials will be needed for a task and explain why. Suggest improvements to their products and describe how to implement them, beginning to take the views of others into account. Use tools safely for cutting and joining materials and components. Compare artists, architects and designers and identify significant characteristics of the same style of artwork, structures and products through time.
	Outcomes: To prepare and cook a simple savoury dish.	Outcomes: To design and make an automaton toy.	Outcomes: To design and construct a mini greenhouse.

Year 4	Autumn 1	Spring 1	Summer 1
	Topic: Warp and weft	Topic: Functional fancy fabrics	Topic: Tomb builders
	Concept: Textiles through time	Concept: Exploring fabrics	Concept: Identifying simple machines
	Skills and Knowledge <ul style="list-style-type: none"> • Compare and contrast artwork from different times and cultures. • Develop techniques through experimentation to create different types of art. • Give constructive feedback to others about ways to improve a piece of artwork. • Choose from a range of materials, showing an understanding of their different characteristics. 	Skills and Knowledge <ul style="list-style-type: none"> • Choose from a range of materials, showing an understanding of their different characteristics. • Create and complete a comparison table to compare two or more products. • Create detailed decorative patterns on fabric using printing techniques. • Explain how and why a significant designer or inventor shaped the world. • Hand sew a hem or seam using a running stitch. • 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. • Investigate and identify the design features of a familiar product. • Select name and use tools with supervision. • Use annotated sketches and exploded diagrams to test and communicate their ideas. • Represent the detailed patterns found in natural phenomena, such as water, weather or animal skins. • Use a range of stitches to add detail and texture to fabric or mixed media collages. 	Skills and Knowledge <ul style="list-style-type: none"> • Choose from a range of materials, showing an understanding of their different characteristics. • Explore and use a range of mechanisms (levers, axles, cams, gears and pulleys) in models or products. • 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.
	Outcomes: To weave a wall hanging.	Outcomes: To design and make a fabric sample.	Outcomes: To make a simple machine.

Year 5	Autumn 1	Spring 1	Summer 1
	Topic: Moving mechanisms	Topic: Eat the seasons	Topic: Architecture
	Concept: Exploring pneumatics	Concept: Seasonality	Concept: Architecture over time
	Skills and Knowledge: <ul style="list-style-type: none"> • Build a framework using a range of materials to support mechanisms. • Explain the functionality and purpose of safety features on a range of products. • Select and combine materials with precision. • Survey users in a range of focus groups and compare results. • Test and evaluate products against a detailed design specification and make adaptations as they develop the product. • Use mechanical systems in their products, such as pneumatics. 	Skills and Knowledge: <ul style="list-style-type: none"> • Describe what seasonality means and explain some of the reasons why it is beneficial. • Evaluate meals and consider if they contribute towards a balanced diet • Use an increasing range of preparation and cooking techniques. • Evaluate meals and consider if they contribute towards a balanced diet. 	Skills and Knowledge: <ul style="list-style-type: none"> • Build a framework using a range of materials to support mechanisms • Describe the social influence of a significant designer or inventor. • Explain how the design of a product has been influenced by the culture or society in which it was designed or made. • Select and combine materials with precision. • Test and evaluate products against a detailed design specification and make adaptations as they develop the product. • Use pattern pieces and computer-aided design packages to design a product. • Describe and discuss how different artists and cultures have used a range of visual elements in their work.
	Outcome: To build a pneumatic machine prototype.	Outcome: To make a seasonal soup.	Outcome: To build a framework using a range of materials to show support, stiffness and stability of a structure.

Year 6	Autumn 1	Spring 1	Summer 1
	Topic: Make do and mend	Topic: Engineer	Topic: Food for life
	Concept: Make Do and Mend campaign	Concept: Bridges and engineers	Concept: Exploring processed foods
	Skills and Knowledge: <ul style="list-style-type: none"> Analyse how an invention or product has significantly changed or improved people's lives. Choose the best materials for a task, showing an understanding of their working characteristics. Create a detailed comparative report about two or more products or inventions. Pin and tack fabrics in preparation for sewing and more complex pattern work. Select appropriate tools for a task and use them safely and precisely. Use different methods of fastening for function and decoration, including press studs, Velcro and buttons. 	Skills and Knowledge <ul style="list-style-type: none"> Analyse how an invention or product has significantly changed or improved people's lives. Choose the best materials for a task, showing an understanding of their working characteristics. Create a detailed comparative report about two or more products or inventions. Demonstrate modifications made to a product as a result of ongoing evaluation by themselves and to others. Develop design criteria for a functional and appealing product that is fit for purpose, communicating ideas clearly in a range of ways. Present a detailed account of the significance of a favourite designer or inventor. Select the most appropriate materials and frameworks for different structures, explaining what makes them strong. 	Skills and Knowledge <ul style="list-style-type: none"> Explain how an invention or product has significantly changed or improved people's lives. Create a detailed comparative report about two or more products or inventions. Demonstrate modifications made to a product as a result of ongoing evaluation by themselves and to others. Explain how organic produce is grown. Follow a recipe that requires a variety of techniques and source the necessary ingredients independently. Plan a healthy daily diet, justifying why each meal contributes towards a balanced diet.
	Outcome: To repair clothes and make a product from recycled materials.	Outcome: To design and make a prototype bridge.	Outcome: To design and make a healthy meal.