



Otterbourne CE Primary School – DT

Curriculum Map, Progression and Golden Threads

Skills to know and remember

	Textiles	Food	Structures
	Autumn Term	Spring Term	Summer Term
Year R	Through continuous provision: Structures: Junk modelling in Creative Area and Inside/Outside Construction. Making greeting cards, houses etc. Develop use of range of fastenings to ensure children have competency in joining. Textiles: Funky Fingers threading tasks including beads, pipe cleaners, laces in holes. Threaded Christmas tree card. Food: Porridge, cheesy stars, chapati	Through continuous provision: Structures: Junk modelling in Creative Area and Inside/Outside Construction. Develop use of range of fastenings to ensure children have competency in joining. Use tools on woodwork bench, tinker with nuts and bolts. Textiles: Funky Fingers threading tasks including beads, pipe cleaners, laces in holes. Staple/ hole punch/ use treasury tags/ split pins/ sliding Easter cards Difference between masking tape and sellotape.	Through continuous provision: Structures: Junk modelling in Creative Area and Inside/Outside Construction. Develop use of range of fastenings to ensure children have competency in joining. Create moving caterpillars using a range of fastenings. Textiles: Funky Fingers threading tasks including beads, pipe cleaners, laces in holes. Bug textile collage. Food: Sandwiches at Shawford Platform 1 café, following healthy plate principles
Assessment	Progress towards a more fluent style of moving, with developing control and grace. Develop their small motor skills so that they can use a range of tools competently, safely and confidently. Use their core muscle strength to achieve a good posture when sitting at a table or sitting on the floor. Explore, use and refine a variety of artistic effects to express their ideas and feelings. Create collaboratively, sharing ideas, resources and skills.		Use a range of small tools, including scissors, paintbrushes and cutlery. 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.
Year 1	Textiles: Christmas Decoration Get started as early as needed. Design: design purposeful, functional, appealing products for themselves and other users based on design criteria. Generate, develop, model and communicate their ideas through talking, drawing, templates and mock-ups. Make: select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]. Select from and use a wide range of materials and textiles, according to their characteristics	Structures: Playground design Make: select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] and select from and use a wide range of materials and components, including construction materials according to their characteristics Evaluate: explore and evaluate their own product and make simple modifications. Technical knowledge: build structures, exploring how they can be made stronger, stiffer and more stable.	Food: fruit kebabs Link to science – grow strawberries and raspberries Use the basic principles of a healthy and varied diet to prepare dishes and understand where food comes from. Make: Select from and use a range of tools and equipment to safely perform practical tasks such as marking out, cutting, joining, finishing, peeling, cutting etc

Assessment Knowledge Skills	To design a decoration based on a theme. To join two pieces of fabric with a running stitch.	To know that an A-Frame and a square structure have a stable base. To modify a design to make their base more stable. Select from and use a variety of tools and materials to make a playground structure stable.	To understand where fruit comes from (country and plant). To use a knife to cut fruit safely to make a fruit kebab.
Year 2	Food: Crumble ***pick apples from orchard link to science trees*** Use the basic principles of a healthy and varied diet to prepare dishes. Understand where food comes from. Make: Select from and use a range of tools and equipment to safely perform practical tasks such as marking out, cutting, joining, finishing, peeling, cutting etc Evaluate their product throughout by discussing how well it works in relation to the purpose and the user and whether it meets design criteria.	Mechanisms: Ship Builder day Make: select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]. Select from and use a wide range of materials and components. Evaluate: evaluate their ideas and products against design criteria Technical knowledge: build structures, exploring how they can be made stronger, stiffer and more stable. Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.	Mechanisms: Fire Engine Design: design purposeful, functional, appealing products for themselves and other users based on design criteria. Generate, develop, model and communicate their ideas through talking, drawing, templates and mock-ups. Make: select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]. Select from and use a wide range of materials and components. Technical knowledge: build structures, exploring how they can be made stronger, stiffer and more stable. Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.
Assessment Knowledge Skills	To use knives and peelers safely to peel and cut apples. To be able to identify how their product can taste better.	To explain how their different mechanisms work (assessment task) To make a structure with working levers and sliders.	To explain how a fixed axel and moving wheel work (assessment task) To use finishing techniques such as painting and fixing to replicate a fire engine model. To measure and cut accurately.
Year 3/4 Cycle A	Photo Frames (a Christmas present for parents) Design: use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups. Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes.	Mechanisms – Fairy Tale Engineering (Levers and linkages) **link to science** Make: select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] accurately Evaluate: evaluate their ideas and products against their own design criteria and consider the views of others to improve their work Technical knowledge: apply their understanding of how to strengthen, stiffen and reinforce more complex structures.	Food – Healthy and varied diet Create an Italian themed salad Understand and apply the principles of a healthy and varied diet. Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. Understand seasonality, and know where and how a variety of ingredients are grown and processed. Design: Generate realistic ideas and their own design criteria through discussion, focusing on the needs of the user.

	Make: select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] accurately Technical knowledge: apply their understanding of how to strengthen, stiffen and reinforce more complex structures.	Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]	Generate and clarify realistic ideas through discussion with peers and adults to develop design criteria for an appealing product for a particular user and purpose. Evaluate: Investigate a range of products relevant to the project including materials, construction techniques, components and ingredients. Understand how a key event/individual has influenced the development of the chosen product.
Assessment Knowledge Skills	To know how to make their photo frame stable. To use a hack saw and bench hook to cut spar frame safely.	To understand how levers and linkages work (assessment task of cause and effect) To join levers to their poster so that they move smoothly.	To know what salad vegetables are in season. To know the categories of the healthy eating plate. To select ingredients according to their taste and sensory characteristics.
Year 3/4 Cycle B	Textiles – Bag a Story Design: use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups. Generate, develop, model and communicate their ideas through discussion, annotated sketches, prototypes and pattern pieces. Make: select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. Select from and use a wider range of materials and components, including different textiles according to their functional properties and aesthetic qualities		Electrical systems – Recycled Torches **Link to science electricity and light & dark** Design: use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups. Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams Make: select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. Select from and use a wider range of materials and components, including construction materials, according to their functional properties and aesthetic qualities Evaluate: investigate and analyse a range of existing products. Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work Technical knowledge: apply their understanding of how to strengthen, stiffen and reinforce more complex structures. Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]
Assessment Knowledge Skills	To produce annotated sketches of their purse design considering the materials and pattern. To use running stitch for decoration and over stitch to join two pieces of fabric together.		To know how to create a working circuit that lights up a bulb. To create a working switch. To select materials that much the purpose.
Year 5/6 Cycle A		Electrical Systems – Minotaur Alarm	Food – WW2 Carrot & Potato Cakes

		Design: use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups. Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design. Make: select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. Select from and use a wider range of materials and components, according to their functional properties and aesthetic qualities Technical knowledge: understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]. Apply their understanding of computing to program, monitor and control their products.	https://the1940sexperiment.com/2011/10/26/potato-and-carrot-pancakes/ Understand and apply the principles of a healthy and varied diet. Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. Design: Generate innovative ideas by carrying out research including surveys, interviews, questionnaires and discussion with peers and adults to develop a design brief and criteria for a design specification. Explore a range of initial ideas, and make design decisions to develop a final product linked to user and purpose. Formulate step-by-step plans;, using relevant technical and sensory vocabulary Use a range of tools, utensils and equipment to make products that are accurately assembled and well finished. Work within the constraints of time, resources and cost. Understand about seasonality in relation to food products and the source of different food products. Make, decorate and present the food product appropriately for the intended user and purpose. Evaluate: Investigate, analyse and evaluate products linked to their final product and record the evaluations using e.g. tables/graphs/charts such as star diagrams. Test and critically evaluate the quality and manufacture of the final product with reference back to the design brief and design specification, taking into account the views of others when identifying improvements.
Assessment Knowledge Skills		To know how to create a working circuit with a switch, buzzer and a bulb To design their alarm using a cross-sectional. (Builds on from given cross-sectional torch design)	To create step-by-step instructions in their individual pancake recipe To design our rating criteria for tasting seasonal products. To use food evaluations to inform recipe designs.
Year 5/6 Cycle B	Textiles – Space Themed Wall Hanging Design: use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups. Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces		Structures – Gibbet frames Make: select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately and select from and use a wider range of materials and components, including construction materials, according to their functional properties and aesthetic qualities Evaluate: evaluate their ideas and products against their own design criteria and consider the views of others to improve their

	Make: select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. Select from and use a wider range of materials and components, including paper and textiles, according to their functional properties and aesthetic qualities		work. Understand how key events and individuals in design and technology have helped shape the world Technical knowledge: apply their understanding of how to strengthen, stiffen and reinforce more complex structures. Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]
Assessment Knowledge Skills	To use blanket stitch to join two pieces of fabric together. To sew on a button. To use three different types of stitches to enhance the appearance of the finished puppet.		To know how to build stable structure (assessment task) To measure, cut and assembly accurately. To evaluate the effectiveness of their frames and make suggestions for how to improve.

DT Golden Threads

	Design	Make	Evaluate
EYFS	Make, evaluate and improve products against their own criteria and talk about what they have done. Select from a range of materials, new and recycled, to achieve desired outcome. Experience simple cutting, shaping and joining skills e.g. using knives, scissors, glue, paper fasteners and masking tape etc. Experience common fruit, vegetables and food products, undertaking sensory activities of appearance, taste and smell.		
Year 1&2	Design a functional and appealing product for a chosen user and purpose based on simple design criteria. Generate, develop, model and communicate their ideas as appropriate through talking, drawing, templates, mock-ups and information and communication technology, explaining what they could make.	Select from and use a range of tools and equipment to safely perform practical tasks such as marking out, cutting, joining, finishing, peeling, cutting etc Select from and use textiles according to their characteristics, exploring different joining and finishing techniques.	Explore and evaluate a range of existing products relevant to the project being undertaken. Evaluate their product throughout by discussing how well it works in relation to the purpose and the user and whether it meets design criteria.
Year 3&4	Generate realistic ideas and their own design criteria through discussion, focusing on the needs of the user. Generate and clarify realistic ideas through discussion with peers and adults to develop design criteria for an appealing product for a particular user and purpose. Produce annotated sketches, prototypes, final product sketches and pattern pieces.	Plan and order the main stages of making and use relevant technical and sensory vocabulary appropriately. Select and use a range of appropriate tools, utensils and equipment with some accuracy e.g. cutting, joining and finishing. Select materials or ingredients according to their functional characteristics e.g. strength, aesthetic qualities e.g. pattern and in food, the sensory characteristics of ingredients.	Investigate a range of products relevant to the project including materials, construction techniques, components and ingredients. Test and make ongoing evaluations of their product against the original design criteria and with the intended user, taking into account others' views. Understand how a key event/individual has influenced the development of the chosen product.
Year 5&6	Generate innovative ideas by carrying out research including surveys, interviews, questionnaires and discussion with peers and adults to develop a design brief and criteria for a design specification. Develop, model and communicate design ideas for a functional, appealing products through talking, drawing, templates, mock-ups and prototypes and, where appropriate, computer-aided design. Explore a range of initial ideas, and make design decisions to develop a final product linked to user and purpose.	Formulate step-by-step plans and, if appropriate, allocate tasks within a team; producing detailed lists of equipment and fabrics relevant to their tasks, using relevant technical and sensory vocabulary Select from and use a range of tools, utensils and equipment to make products that are accurately assembled and well finished. Work within the constraints of time, resources and cost. Understand about seasonality in relation to food products and the source of different food products. Make, decorate and present the food product appropriately for the intended user and purpose.	Investigate, analyse and evaluate products linked to their final product and record the evaluations using e.g. tables/graphs/charts such as star diagrams. Test and critically evaluate the quality and manufacture of the final product with reference back to the design brief and design specification, taking into account the views of others when identifying improvements. Understand how key chefs have influenced eating habits to promote varied and healthy diets and investigate famous manufacturing and engineering companies relevant to the project.