

North Mundham Primary School Subject Area: Design Technology

Curriculum Map

Food Technology Mechanisms Structures Textiles

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Year	Autumn	Spring	Summer
R	Throughout the year the children explore Design and Tech through making models using a range of recyclable materials, card and fabrics as part of their make and do curriculum. They will plan before making and cut, stick and join. Children have an introduction to woodwork including using hammers, saws and screwdrivers. Children begin to learn about food technology and hygiene, identifying, choosing and using simple tools safely. Children will make simple plans with adults verbally.		
1	Chop, Slice and Mash! Children will learn about sources of food and the preparatory skills of peeling, tearing, slicing, chopping, mashing and grating. Children will use knowledge and techniques to design and make a tortilla wrap pizza according to specific design criteria. Skills: carry out a practical task safely, select tools, create a simple design, evaluate their own and other's work, measure and weigh food items, select ingredients, describe importance of materials/items, sort foods into groups based on their origins, know if foods are plant or animal based describe importance of products.	Taxi! Children about wheels, axles and chassis and how they work together to make a vehicle move. Skills: 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.	Shade and Shelter Children will learn about the purpose of shelters and their materials, name and describe shelters and design and make shelter prototypes. Children then design and build a play den as a group and evaluate their completed product. Skills: Construct simple structures, models or other products using a range of materials, design to a 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, use and begin to explain choices of materials, talk about their own and each other's work, identifying strengths or weaknesses and offering support.
2	Remarkable Recipes Children will learn about sources of food and tools used for food preparation. Children will discover why some foods are cooked and learn to read a simple recipe. Children choose and make a new school pudding that fulfils specific design criteria. Skills: Work safely and hygienically, generate and communicate ideas using a range of methods, Identify the origin of some common foods, prepare ingredients using different methods, apply knowledge of healthy varied	Beach Huts and Bathing Children will learn about making and strengthening structures, including different ways of joining materials to make a bathing hut. Skills: Generate and communicate their ideas through a range of different methods; explore how to improve structure stability, select and explain tool choice, evaluate and suggest improvements, chose components and materials and manipulate them,	Cut, stitch and join Children will learn about fabric home products and the significant British brand Cath Kidston. They learn about sewing patterns and using a running stitch and embellishments before making a sewn bag tag. Skills: Add decorative embellishments, Choose components and materials and say how to manipulate them, Compare products and brands. Explain how products could be improved, explain improvements to their designs, explain why a designer or inventor is important, generate and communicate their ideas, Select

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	diets to create a simple healthy meal, explain importance of designer/inventor	·	tools and explain choices, use different methods of joining fabrics.
3	Cook well, eat well. Children learn about food groups and the Eatwell guide. They learn about methods of cooking and explore these by cooking potatoes and ratatouille. The children choose and make a wrap filling according to specific design criteria. Skills: prepare and cook a simple dish, identify main food groups, identify and name food from different places, use appliances with supervision, develop design criteria to inform a design, suggest improvements and know how to implement, acknowledge suggestions for improvement, describe key design events that have shaped the world	Making it Move! Children learn about cam mechanisms. They experiment with different shaped cams before designing, making and evaluating a child's automaton toy. Skills: explain how products benefit users, explore and use mechanisms in models, develop a design criteria to inform a design, use tools to cut and join, suggest improvements and know how to implement, acknowledge suggestions for improvement, plan and explain material choice.	Greenhouse Children learn about the purpose, structure and design features of greenhouses, and compare the work of two significant greenhouse designers. They learn techniques to strengthen structures and use tools safely. They use their learning to design and construct a mini greenhouse. Skills: explain how products benefit users, use appliances with supervision, develop design criteria to inform a design, create frames with diagonal struts later for support, use tools to cut and join, suggest improvements and know how to implement, acknowledge suggestions for improvement, plan and explain material choice, explain similarities and differences between designers.
4	Fresh Food, Good Food. Children learn about food decay and preservation. They discover key inventions in food preservation and packaging, then make examples. The children prepare, package and evaluate a healthy snack. Skills: Explain how and why a significant designer or inventor shaped the world, use chemical products under supervision, annotate sketches to communicate ideas, create shells/frames and be able to strengthen, identify what has worked well and improve designs, choose materials by understanding characteristics, identify and use cooking techniques, design and explain a healthy snack, identify and name foods produced in different places.	Functional and fancy fabrics. Children learn about home furnishings and the significant designer William Morris. They learn techniques for decorating fabric, including block printing, hemming and embroidery and use them to design and make a fabric sample. Skills: investigate/identify design features of familiar products, annotate sketches to communicate ideas, select, name and use tools when supervised, identify what has worked well and improve designs, hand sew using running stitch, choose materials by understanding characteristics, print decorative patterns on fabric, compare two products in a table, explain how and why a significant designer or inventor shaped the world.	Tomb Builders Children learn about simple machines, including wheels, axles, inclined planes, pulleys and levers, exploring how they helped ancient builders to lift and move heavy loads. Skills: investigate/identify design features of familiar products, use and explore mechanisms, annotate sketches to communicate ideas, select, name and use tools when supervised, identify what has worked well and improve designs,



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Architecture Moving Mechanisms Eat the seasons Children learn about pneumatic systems. They experiment Children learn about the meaning and benefits of seasonal Children about how architectural style and technology has with pneumatics before designing, making and evaluating eating, including food preparation and cooking techniques. developed over time and then use this knowledge to a pneumatic machine that performs a useful function. Skills: Use an increasing range of preparation and cooking design a building with specific features. Skills: Explain how product designs are influenced by techniques to cook a sweet or savoury dish, evaluate Skills: Build a framework using materials to support culture or society, explain functionality and purpose of meals and consider their contribution in a healthy diet, mechanisms, describe the influence of a designer or safety features of products, use mechanical systems in describe what seasonality means and explain some of the inventor, explain how the design of a product has been their products, such as pneumatics, build a framework reasons why it is beneficial. influenced by the culture or society, select and combine using a range of materials to support mechanisms, materials with precision, test and evaluate products name/select increasingly appropriate tools for a task and against a detailed design specification and adapt, use use safely, test and evaluate products against design pattern pieces and computer-aided design packages to specification, make adaptations as they develop the design a product. product, select and combine materials with precision. survey users in a range of focus groups and compare results. Food for life **Engineer** Make, Do and Mend Children learn about processed food and healthy food Children learn about remarkable engineers and significant Children learn a range of simple sewing stitches, including choices. They make bread and pasta sauces and learn bridges, learning to identify features, such as beams, ways of recycling and repurposing old clothes and about the benefits of whole foods. They plan and make arches and trusses. They complete a bridge-building materials. meals as part of a healthy daily menu, and evaluate their Skills: Analyse how an invention or product has engineering challenge to create a bridge prototype. Skills: significantly changed or improved people's lives. Choose completed products. Skills: Analyse how an invention or product has Analyse how an invention or product has significantly the best materials for a task, saying why, compare and significantly changed or improved people's lives, select changed or improved people's lives, choose the best report about two or more products or inventions. Pin and appropriate tools and use safely and precisely, materials for a task, showing an understanding of their tack fabrics in preparation for sewing, select appropriate demonstrate modifications made to a product as a result working characteristics, tools for a task and use safely and precisely. Use different of ongoing evaluation by themselves and to others, create a detailed comparative report about two or more methods of fastening for function and decoration. Follow a recipe that requires a variety of techniques and products or inventions, source the necessary ingredients independently, plan a modify a product as a result of ongoing evaluation by healthy daily diet, justifying why each meal contributes themselves and to others, develop design criteria for a towards a balanced diet, explain how organic produce is functional and appealing product that is fit for purpose, grown, Create a detailed comparative report about two communicating ideas clearly in a range of ways, present a or more products or inventions. 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.



Curriculum Map

SKILL AREAS:

Explore and compare:	Name and explore products
Products	Compare same product
	Compare brands
	Consider improvements to products
	Know benefits of products
	Identify design features of familiar products
	Compare two products in a table
	Explain impact of culture and society on products
	Complete surveys
	Evaluate products and consider impact
	Analyse product impact
	Create a comparative report
Explore and compare:	Explain designer/inventor significance
Designers/Inventors	Describe how design events shaped the world
Designers/inventors	Explain similarities and differences between designers
	Explain how designers shaped/influences the world
	Describe designer influences
	Present detailed accounts about designers
Design	Simple Designing
	Generate ideas
	Communicate ideas
	Use a range of design methods
	Develop design criteria
	Annotate design sketches
	Use CAD to design products
	Communicate ideas in a range of ways



Curriculum Map

	North Mundham Filmary School Curricu	idili Map
Tools	Select simple tools	Tools:
	Measure and weigh	Year 2: paper and pva, scissors
	Explain tool choice	Year 3: Glue guns, lolly sticks,
	Use tools to cut and join	
	Select, name and accurately use tools with supervision	
	Select increasingly appropriate tools	
	Select tools, use precisely and safely	
Materials	Explore materials	
	Select materials/ingredients	
	Describe materials	
	Prepare materials/ingredients	
	Manipulate materials	
	Use different methods to join materials/fabrics	
	Plan and explain own material choice	
	Choose materials based on characteristics	
	Combine with precision	
Build	Construct simply	
	Improve stability	
	Build frames with supports	
	Create shells/frames and strengthen	
	Build frameworks to support mechanisms	
	Select, make, explain most appropriate framework for product	
	Add embellishments	
	Print patterns and use stitches	
	Pin and tack in prep	
	Use fastening methods	
	Prepare and cook using ingredients	
	Develop prep and cooking techniques	
	Identify and use cooking techniques	
	Plan a diet/meal	
	Follow a recipe	
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Curriculum Map

	Use simple wheels/axles
	Use and explore mechanisms
	Adapt as developing
	Use mechanical systems
Safety	Follow rules given
	Consider hygiene
	Use appliances with supervision
	Use chemical products with supervision
	Functionality and purpose of safety features
Evaluate	Evaluate own work
	Suggest improvements
	Explain improvements
	Make improvements
	Reflect and improve designs
	Test and evaluate against spec
	Show modifications and explain