



Yorke Mead Primary School

DT Curriculum



Year 1		
Key Theme : Cooking and nutrition - Making bread		
Previous Learning To be reinforced	Core Learning Intentions Age Related	Extension Opportunities Next steps
Talk about things they have observed, similarities and differences. Experiment and explore. Think about uses and purposes.	Explore and investigate a range of bread products including taste, appearance, texture, smell. Explore the purpose of different bread products.	Able to compare different breads, predict their purpose and justify their similarities and differences.
Represent their own ideas, thoughts and feelings through design and technology. Communicate ideas orally.	Use the basic principles of a healthy diet to design their own bread product. Design – generate and communicate ideas in a plan	Can extend and link ideas of a balanced diet with other foods.
Practical task – safely use and explore a variety of materials, tools and techniques.	Make – mixing, kneading, shaping. Awareness of food safety / hygiene.	Links food safety and health.
Practical task – experiment with colour, design, texture, form and function.	Cooking – prepare dough for adult to cook. Understand where bread comes from and how and why it is baked to create the finished product.	Considers the implications of under or over baking the bread.

Year 1		
Key Theme : Textiles – peg dolls		
Previous Learning To be reinforced	Core Learning Intentions Age Related	Extension Opportunities Next steps
Talk about things they have observed, similarities and differences. Experiment and explore. Think about uses and purposes.	Explore and investigate a range of simple textile toys, including their features and construction and who they were made for. Explore different joining techniques - gluing and sewing	Compare different toys, predicting their design purpose and justifying reasons for their similarities and differences. Explain and justify advantages and disadvantages of different joining methods.
Represent their own ideas, thoughts and feelings through design and technology.	Design their own peg doll character, selecting from and using a range of materials according to their	Justifies design choices with reference to ideas such as form, texture, contrast



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Communicate ideas orally. Practical task – experiment with colour, design, texture, form and function.	characteristics. Communicate their ideas through drawing and talking.	
Practical task – safely use and explore a variety of materials, tools and techniques.	Make their peg character selecting from and using a range of tools and equipment to perform practical tasks of cutting, joining, finishing.	Considers advantages and disadvantages of tools and equipment, identifying limitations and other methods for performing practical tasks.
	Evaluate ideas and finished product against design criteria	Critically evaluate with specific detail.

Year 1		
Key Theme : Levers and sliders - Homes for mini-beasts		
Previous Learning To be reinforced	Core Learning Intentions Age Related	Extension Opportunities Next steps
Talk about things they have observed, similarities and differences. Experiment and explore. Think about uses and purposes.	Explore the use levers and sliders in a range of existing products.	Predict their construction and movement. Compare and contrast products with justifying advantages and disadvantages.
Represent their own ideas, thoughts and feelings through design and technology. Practical task – experiment with colour, design, texture, form and function. Communicate ideas orally.	Design their own appealing moving picture for a particular purpose, selecting from a range of materials. Develop and communicate their ideas through drawing and talking or a mock-up.	Explain and justify design choices.
Practical task – safely use and explore a variety of materials, tools and techniques.	Make their product using their design. Select from and use a range of tools equipment to perform practical tasks of cutting, joining, finishing.	Identify problems in the making process and adapt and amend their design accordingly.
	Share their work as they evaluate their and others finished work.	Offer thoughtful, specific, helpful criticism.



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Year 2		
Key Theme : Cooking and nutrition – healthy snacks (can be adapted to particular topics or occasions by changing the types of fruit or vegetables, or changing the target group, or focusing on a particular product e.g. salads, soups, fruit jelly, fruit yoghurt, fruit drinks, fruit or vegetable skewers.		
Previous Learning To be reinforced	Core Learning Intentions Age Related	Extension Opportunities Next steps
Yr 1 explore a range of existing food items using appropriate language	Explore, investigate and taste different foods and develop vocabulary to describe the appearance, taste, smell and texture and discover what children like best. Look at and classify foods on how and where they are grown. Look at different preparation requirements – washing, peeling etc.	Compare and contrast different foods, predicting how they may taste or be prepared based on prior learning and links.
Yr 1 design a dish using the basic principles of a healthy and varied diet. Communicate ideas.	Develop design ideas based on their research. Decide what they intend to design and make and who it is for using the basic principles of a healthy and varied diet. Consider how their choices will be prepared and presented to be appealing. Communicate their ideas through talking, drawing and labelling.	Justify design choices and relative emphasis on nutritional value, seasonality, taste and appearance.
Yr 1 prepare food using basic hygiene principles	Using their plan and design, make their snacks. Apply basic hygienic practices and to use basic tools and equipment effectively and safely.	Make links between hygiene and food safety and health
Yr 1 evaluate their ideas	Share their work and evaluate their design and finished product.	Critically evaluate with specific detail.



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Year 2		
Key Theme : Mechanisms and mechanical systems – levers and sliders		
Moving space pictures		
Previous Learning To be reinforced	Core Learning Intentions Age Related	Extension Opportunities Next steps
Y1 explore levers and sliders	Explore the use levers and pivots, wheel mechanism and sliders in a range of existing moving pictures	Predict movement and mechanism
Y1 design with a lever and slider	Design their own functional, appealing moving picture for a particular purpose, selecting from a range of materials. Develop and communicate their ideas through drawing and talking or a mock-up.	Design with multiple moving parts
Y1 make a picture using a lever or slider	Make their moving pictures using a range of appropriate tools, equipment and finishing techniques	Identify problems in the making process and adapt and amend their design accordingly.
Yr 1 evaluate their and others finished work.	Share their work as they evaluate their and others finished work.	Critically evaluate with specific detail.

Year 2		
Key Theme : Mechanisms and mechanical systems – wheels and axles		
Vehicles - Linked to Africa topic – make safari jeeps could link to colour mixing and camouflage		
Previous Learning To be reinforced	Core Learning Intentions Age Related	Extension Opportunities Next steps
Y1 investigate products with moving parts	Investigate and identify different vehicle features and functions. Explore wheels, axels and chassis and how they can be attached.	Critically evaluate different wheel and axel construction and movement.
Yr 1 Design a product for a particular purpose	Design own vehicle based on design criteria. Develop and communicate their ideas through talking and drawing.	



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Yr 1 select appropriate materials and tools to cut join and finish	Select appropriate materials and tools for construction. Make vehicles using a variety of materials, tools and equipment to cut, join and finish.	Identify and pre-empt problems in the making process and adapt and amend their design accordingly.
Yr 1 evaluate their ideas against design criteria.	Evaluate finished vehicles against design criteria.	

Year 3		
Key Theme : Cooking and nutrition - Sandwiches		
Previous Learning To be reinforced	Core Learning Intentions Age Related	Extension Opportunities Next steps
Yr 1 investigating types of bread Yr 2 exploring where and how food is grown	Explore the food pyramid and the principles of a varied and healthy diet. Investigate and taste different types of bread and ingredients.	
Yr 1 designing their own bread roll Yr 2 use the basic principles of a healthy and varied diet	Decide who and what they will make their sandwich for. Plan and design their own sandwich selecting appropriate ingredients. Model and communicate their ideas in an exploded diagram of their sandwich.	
Yr 2 preparation techniques for fruit and vegetables Yr 2 hygienic practices and using kitchen tools and equipment effectively and safely	Demonstrate an understanding of working safely with food. Prepare their sandwich using appropriate tools and techniques.	
	Evaluate their design and making process. Consider improvements.	



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Year 3		
Key Theme : Mechanisms and mechanical systems – pneumatics Linked to machines topic – make a pneumatic machine		
Previous Learning To be reinforced	Core Learning Intentions Age Related	Extension Opportunities Next steps
Yr 2 explore and investigate products with moving parts	Explore a range of familiar products that use air to make them work eg. Whistles, party blowers, bicycle pumps. Investigate what air does and how it has been used in the design of these products.	
	Experiment with different materials and different moving parts. Plan and design their own machine – developing, generating and communicating their ideas through discussion and annotated sketches.	
Yr 2 select a variety of materials, tools and equipment to cut join and finish.	Make their pneumatic machine selecting and using a range of tools and equipment. Select appropriate materials and components based on their functional properties and aesthetic qualities.	
	Evaluate against their own design criteria and consider improvements.	

Year 3		
Key Theme : Structures – packaging Linked to cheese topic (France)		
Previous Learning To be reinforced	Core Learning Intentions Age Related	Extension Opportunities Next steps
Yr 2 Investigate a range of existing products, including the structural qualities	Investigate and analyse a range of existing products exploring purpose and functionality, materials used and construction. Opportunity to explore nets of shapes and determine which shapes would be best	Link to printing and graphics on packaging, differentiating between statutory labelling and advertising.



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	for a variety of packaging. Explore the use of graphics on packaging and consider audience and purpose.	Linking packaging materials and impact of their manufacture and waste on the environment.
Yr 2 Design a structural product fit for purpose	Design their own packaging box fit for a particular purpose, considering functionality and appeal – link to cheese topic. Selecting from a range of materials according to their functional properties and aesthetic qualities. Develop and communicate their ideas through discussion, annotated sketches and prototypes.	
Yr 2 Select appropriate materials, tools and equipment to cut, join and finish.	Construct and decorate their own packaging, selecting from a range of tools and equipment to cut, shape, join and finish accurately.	
	Reflect on design and making process. Evaluate their own finished product against the design criteria and consider the views of others to improve their work.	

Year 4

Key Theme : Cooking and Nutrition – vegetarian filo parcels (samosas)

Linked to RE Sikhism

Previous Learning To be reinforced	Core Learning Intentions Age Related	Extension Opportunities Next steps
Yr 3 explore the principles of a varied and healthy diet.	Explore and understand what seasonality is – look at what UK foods are at their best at this time of year and why foods are available all year round (focusing on vegetables). Understand the importance of fresh vegetables as part of a healthy diet. Research samosas – what they are, how they are made and where they originate from. Explore different vegetables by touch, taste, smell, sight.	



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Yr 3 Plan and design a food item selecting appropriate ingredients	Decide who and what they will make their samosa for. Plan and design their own vegetable filo parcel selecting appropriate ingredients such as seasonal vegetables. Model and communicate their ideas in an exploded diagram of their parcel.	
Yr 3 working safely with food	Demonstrate an understanding of working safely with food. Prepare and cook their vegetable parcel using appropriate tools and techniques. Chop, grate, weigh and mix ingredients accurately using appropriate equipment safely.	
	Evaluate their parcels against their design criteria. Identify any areas for improvement or changes they would wish to make following tasting.	

Year 4		
Key Theme : Build complex structures - Musical instruments		
Previous Learning To be reinforced	Core Learning Intentions Age Related	Extension Opportunities Next steps
Yr 3 exploring the functionality and design of a range of existing products. Yr 4 link to science unit on sound	Research musical instruments and explore and analyse how different types of sounds can be made using different techniques (hitting, plucking, blowing, scraping, shaking). Explore how the properties of materials will affect the sound made.	Able to predict the type of sounds made using different techniques
	Plan and design their own musical instrument considering purpose and selecting appropriate materials based on their acoustic properties. Generate, develop and communicate their ideas through discussion and annotated diagrams.	To design an instrument that has changes in pitch



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Yr 3 Construct and decorate a structure, selecting from a range of tools and equipment to cut, shape, join and finish accurately.	Select and use a range of tools and equipment to strengthen, stiffen and reinforce their instrument as appropriate, performing cutting, shaping, joining and finishing accurately.	
Yr 3 – Evaluating a structure against design criteria	Perform their instruments. Evaluate their idea and finished product against their own design criteria and consider improvements.	

Year 4		
Key Theme : Light-up landmark / lightbox		
Previous Learning To be reinforced	Core Learning Intentions Age Related	Extension Opportunities Next steps
	Investigate a range of light up products, explore the different components and how they are designed to suit a particular purpose.	Predict the circuit and components used in products.
Yr 4 – link to science unit on electricity – creating a circuit - investigating and making switches	Design their own light up product fit for purpose, including a switch to suit their design, from a range of suitable materials. Generate, develop and communicate their ideas through discussion and annotated diagrams.	Develop circuit design exploring concepts such as series or parallel circuits with multiple components and predicting outcomes.
Yr 4 – link to science unit on electricity – creating a circuit - investigating and making switches	Understand and use an electrical system with bulb, wire, batteries and switch (link to science unit) to make their product using a range of tools and equipment accurately. Construct their landmark from a range of appropriate tools and equipment.	Develop finishing and decorating techniques to enhance quality of finished product.
Yr 3 – Evaluating a structure against design criteria	Evaluate their idea and finished product against their own design criteria and consider improvements.	



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Year 5		
Key Theme : Mars Rovers		
Previous Learning To be reinforced	Core Learning Intentions Age Related	Extension Opportunities Next steps
Yr 2 explore and investigate a range of vehicles, including how wheels can be attached	Explore and investigate lunar rovers/vehicles. Identify functionality and purpose	Explains specific design choices with reference to product purpose and operating environment.
Yr 4 electrical system with switch	Understand and use electrical system with motor and switch.	
Yr 2 Design a moving vehicle with wheels, axels and chassis	Design product fit for a specific purpose. Design a moving vehicle selecting from a range of appropriate material.	
Yr 4 Reinforcing structures Yr 2 Construct a moving vehicle with wheels, axels and chassis	Build reinforced chassis with axels and wheels using a range of appropriate tools with accuracy	
	Evaluate the quality of the finished product against their own design criteria. Identify areas of strength and consider ways to improve their work.	

Year 5		
Key Theme : Moving toys – cams mechanisms		
Previous Learning To be reinforced	Core Learning Intentions Age Related	Extension Opportunities Next steps
Yr 5 Link to forces science unit	Understand that a cam mechanism is a linkage system which converts rotary movement to linear movement. Explore different examples in moving toys.	Link gears and cams mechanisms to their use in other everyday items such as bikes, clock mechanism.
	Through research, consider how the shape and size of different cams affect the movement.	Able to predict the movement generated from more complicated cam shapes.



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Yr 4 design a product fit for purpose	Design their own toy with a cam mechanism, considering function, appeal and ensuring it is fit for purpose. Communicate their design through annotated sketches.	Design their own cam shape Design incorporating multiple cams
Yr 4 Select and use a range of tools and equipment to strengthen, stiffen and reinforce as appropriate, performing cutting, shaping, joining and finishing accurately.	Follow their design to make their toy, using a range of tools and equipment accurately; selecting from appropriate materials according to their functional properties and aesthetic qualities.	Develop and enhance the quality and accuracy of the finishing and decoration.
	Evaluate the quality of the finished product against their own design criteria. Identify areas of strength and consider ways to improve their work.	

Year 5		
Key Theme : London Landmarks - CAD – ICT morphing image		
Previous Learning To be reinforced	Core Learning Intentions Age Related	Extension Opportunities Next steps
Using a range of ICT software for different purposes	In ICT develop skills using design software 'sketchup'	Able to explore in depth the functionality of sketchup independently
Prior learning in maths investigating nets of different shapes	Investigate nets of shapes and how they could be applied to their design (link to maths).	Able to predict/visualise the nets of more complex shapes
	Design their own London landmark, developing their own design criteria and considering the purpose of their building, using sketchup	Explains inspiration for design and justifies design choices and influences.
	Construct their building selecting from a range of appropriate materials and tools - transferring their design to a model	
	Evaluate their finished model against their own design criteria. Identify areas of strength and consider ways to improve their work.	



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Year 6 Key Theme : Earthquake proof structures Link to Year 6 geography unit on extreme earth		
Previous Learning To be reinforced	Core Learning Intentions Age Related	Extension Opportunities Next steps
Yr 5 Consider how to strengthen and build structures	Research different buildings around the world that have incorporated some form of design element to withstand the shaking and stresses from an earthquake. Can they identify any shapes used in their construction? Investigate and test a variety of different shapes, identifying the strongest shapes.	Predict how different shapes react under different types of forces and stresses.
Yr 5 select appropriate materials according to their functional properties.	Design their own earthquake proof building. Select appropriate materials and joining techniques from testing a range of prototypes, developing ways they could strengthen, stiffen and reinforce their building. Communicate their ideas through sketches and including cross-sectional diagrams.	Link to Yr 6 geography unit extreme earth - use their understanding of the forces, processes and mechanics of earthquakes to inform the design process.
Yr 5 select appropriate tools and techniques to strengthen and reinforce	Make their building using a range of tools and equipment to cut and join accurately.	Identify, pre-empt and solve problems arising during construction, adjusting and adapting design as required.
	Test and evaluate the effectiveness of their design. Identify areas of weakness and strength and suggest improvements.	



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Year 6		
Key Theme : Textiles - slippers		
Previous Learning To be reinforced	Core Learning Intentions Age Related	Extension Opportunities Next steps
Yr 5 explore and investigate a range of existing products, identifying design aspects and technical construction	Explore a range of slippers – who they are designed for, the function, the material used and the different parts. Explore the process of making slippers looking at paper patterns.	Identify design aspects and functionality in more complicated examples.
Y1 textiles sewing Sewing xmas decorations – Yr3? Yr 4?	Explore different sewing stitches – the function, purpose and practise sewing them.	Able to sew more complex stitches and identify and explain how and why they may suit other specific functions and purposes.
Yr 5 design an appealing functional product for a specific purpose considering end user, considering appropriate materials and tools	Design and plan their own slippers. Develop criteria to design an innovative, functional, and appealing product, aimed at a particular group or individual. Communicate their ideas through annotated sketches and generate pattern pieces.	Design a more complicated pattern and incorporate design features to enhance the functionality of the finished product. Consider and develop other methods for joining to enhance the quality of the finished product.
	Make their slippers using a range of tools and equipment accurately; selecting from appropriate materials according to their functional properties and aesthetic qualities.	Develop and enhance the quality of the finishing and decoration – taking inspiration from other styles and designs, explaining their influence.
	Evaluate the quality of the finished product against their own design criteria. Identify areas of strength and consider ways to improve their work.	Able to problem solve, enhance and adapt their plan and design as they make, explaining their reasoning and choices.



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Year 6		
Key Theme : Cooking and nutrition - British dishes		
Previous Learning To be reinforced	Core Learning Intentions Age Related	Extension Opportunities Next steps
Yr 4 build on previous knowledge on seasonality	Explore national savoury dishes of England, looking at its origin and consider how healthy it is. Explore national sweet dishes of England and look at how healthy it is consider sugars and natural sugars. Link to seasonal fruits. Explore national Scottish dishes looking at how crops are grown, harvested and processed.	Able to identify links between national dishes and their heritage and cultural development over time. Able to link seasonality to concepts in physical and human geography.
Yr 3 use basic principles of a healthy diet Yr 4 plan and design a savoury dish	Design their own savoury dishes, selecting appropriate ingredients and applying the principles of a healthy and varied diet. Communicate their design appropriately.	Able to consider the different food groups and the nutritional value of different food items and ingredients using technical vocabulary such as macro and micro nutrients and links with science topics.
Yr 4 weigh, mix ingredients, hygiene and safety in cooking (Xmas café cooking every year group)	Prepare and cook a savoury dish using a range of cooking techniques. Weigh and mix ingredients accurately using appropriate equipment.	Able to identify characteristics of different cooking methods and understand and explain the effect they may have on the finished product.
	Evaluate their dish for taste and appearance against their design criteria. Identify areas of strength and ways it could be improved.	Able to identify and explain how and why specific ingredients could be changed or replaced to enhance finished product.