

Y3 & 4 DT CURRICULUM

Year A



AUTUMN: "ARCHEOLOGY ROCKS!"	SPRING: "OUTLAWS!"	SUMMER: "LET YOUR LIGHT SHINE!"	
MOVING MODELS – skeleton / body	TRADITIONAL LOCAL RECIPES	STABLE STRUCTURES – Celtic Photograph Frames	CONTAINERS - Celtic Keepsake Box
OVERVIEW In this unit, pupils gain an understanding of linkage-type mechanisms through investigating a range of products (e.g. greetings cards / books). Children develop further skills and understanding relating to the construction and assembly of a range of simple mechanisms.	OVERVIEW In this unit, pupils develop their skills, knowledge and understanding of food and prepare local food products using simple processes. The pupils learn how to adapt basic recipes to develop a product based on their investigations of existing products from the area.	OVERVIEW In this unit, pupils learn about stiffening materials and making stable structures through the context of a free-standing photograph frame. The unit uses readily available materials and examples.	OVERVIEW In this unit, pupils learn about strengthening sheet material to make a strong shell structure . They gain knowledge of nets and how complex 3d shapes can be made. They develop their making skills through focused tasks which use a range of measuring, cutting and assembling skills.
PRIOR LEARNING – Pupils will have: - Learnt about hinges and sliders - Used different joining and cutting techniques with paper and card - Used basic cutting tools suitable for card	PRIOR LEARNING – Pupils will have: - Experience of describing food - Basic skills in using equipment safely - Awareness of food hygiene - Used weighing and measuring skills	PRIOR LEARNING – Pupils will have: - Used construction kits - Used a range of cutting and joining techniques	PRIOR LEARNING – Pupils will have: - Used different joining and cutting methods for paper / card - Learn the differences between 2d and 3d shapes
VOCABULARY DESIGNING: model, mock-up, plan, 'fit for purpose' MAKING: fold, scoring, adhesive, cutting, joining, temporary / permanent fixing KNOWLEDGE & UNDERSTANDING: linkage, lever, pivot, flexible, shape, joint, hinge, area, surface, types of movement (e.g. rotary, linear)	VOCABULARY DESIGNING: investigate, research, evaluate, consumer, quality, specification MAKING: combining, creaming, mixing, finishing, hygiene, antibacterial KNOWLEDGE & UNDERSTANDING: names of equipment, ingredients and products; quality, texture, flavour, crisp, crunchy, sticky	VOCABULARY DESIGNING: user, choice, decoration, quality, components, purpose MAKING: planning, order, rolling, layering, cutting, finish, board KNOWLEDGE & UNDERSTANDING: stable, free-standing, stiffen, frame, sturdy, reinforce, quality, distance, near, close, wide, narrow, deep, shallow, thick, thin	VOCABULARY DESIGNING: font, graphic, decision, evaluating, criteria, holds, fit for purpose MAKING: scoring, tabs, adhesives, join, assemble, accuracy KNOWLEDGE & UNDERSTANDING: 3d shapes (cube, cuboid, prism), net, vertex, edge, face, packaging, shell structure, breadth, capacity
END of UNIT EXPECTATIONS Pupils will have increased their repertoire of skills and techniques; used tools safely to make a range of simple mechanisms including levers and linkages; been able to evaluate their product. Y4 EXT: Pupils will have produced step-by-step plans for the production of their product; combined several different types of mechanisms; evaluated and made on-going modifications; created a product which functions well and is visually effective.	END of UNIT EXPECTATIONS Pupils will have used their experiences of food to help generate ideas; explained why they have chosen certain ingredients; followed an order of work / recipe; chosen equipment appropriately; worked safely and accurately; evaluated their product. Y4 EXT: Pupils will have evaluated several ideas and drawn up specifications inform their design; applied understanding of functional properties and characteristics of ingredients; created a quality outcome that meets their original design specification.	END of UNIT EXPECTATIONS Pupils will have gained an understanding of the ways in which structures can be made stable, recognizing conflicting demands on the structure; designed and made a free-standing photo frame using Celtic designs. Y4 EXT: Pupils will have considered a greater range of ways of making structures stable, justified their choices and created a frame which matches their design criteria; considered a variety of ideas for shape, finish and appearance; evaluated their frames in relation to their design criteria.	END of UNIT EXPECTATIONS Pupils will have investigated a range of commercially made packaging and recognize that most are made from nets; made paper mock-ups of ideas; measure, mark-out, cut and assemble with accuracy; produced a container which is visually attractive and accurately made. Y4 EXT: Pupils will have produced labelled drawings showing alternative ideas; suggested a step-by-step approach to how they will make their box; matched materials, tools and techniques to task; identified what worked well and suggested modifications.

Year B

AUTUMN: “MOVERS & SHAKERS”	SPRING: “SPLASH & CRASH!”	SUMMER: “TO INFINITY AND BEYOND”	
VIKING MONEY PURSE – sewing	LIGHTHOUSE / FOGHORN - electrical systems	MOVING ALIENS - Simple pneumatic systems	ALIEN TOY – sewing
OVERVIEW In this unit, pupils learn how textile containers (e.g. purses and wallets) are designed for different purposes and different users. They design patterns/templates and join fabrics. They communicate their early ideas through modelling with paper and use decorative techniques .	OVERVIEW In this unit, pupils develop an understanding of electrical control to make either a model light-house which lights up or a foghorn. The pupils will have to consider how it can be controlled and will make their own switch .	OVERVIEW In this unit, pupils develop their understanding of control by investigating simple pneumatic systems to design and make a model of an alien that has moving parts . This unit involves pupils working as part of a team.	OVERVIEW In this unit, pupils learn about making accurate patterns / templates and detailed drawings. They develop making and finishing skills to enhance their final soft toy product. They identify what to do to improve their final product.
PRIOR LEARNING – Pupils will have: - Joined fabrics in simple ways by gluing and stitching - Used simple patterns / templates for measuring and marking out - Evaluated products	PRIOR LEARNING – Pupils will have: - Constructed simple electrical circuits - Cut and joined a variety of materials including reclaimed materials - Learnt how the components work	PRIOR LEARNING – Pupils will have: - Learnt how materials can be joined to allow movement - Generated and communicated ideas - Joined and combined materials using simple hand tools	PRIOR LEARNING – Pupils will have: - Made and used simple patterns - Stitched and joined textiles - Written simple specifications - Planned their work with step-by-step approach
VOCABULARY DESIGNING: user, purpose, design criteria, model, evaluating, labelled drawings, reinforcing MAKING: pattern / templates, strengths, weaknesses, accurate, finishing KNOWLEDGE & UNDERSTANDING: fabric, fastening, compartment, zip, press stud, clasp, hook and eye, button, buckle, seam, reinforce, embroidery, hard-wearing, stretch, fray	VOCABULARY DESIGNING: user, specific, plan, labelled drawing, decide, list, classify MAKING: clip, fault, screw, connect, join KNOWLEDGE & UNDERSTANDING: electricity, circuit, battery, bulb, wire, insulation, crocodile clip, aluminium foil, switch, reflector, energy	VOCABULARY DESIGNING: suggestion, evaluate, ideas, appropriate, sort, order, data, graph, set, list MAKING: planning, components, fixing, tubing, syringe, attaching, finishing KNOWLEDGE & UNDERSTANDING: control, pneumatic system, pressure, inflate, deflate, input, output, pump, hinge,	VOCABULARY DESIGNING: specification, mock-up, accurate, fabric swatches, working drawing MAKING: pattern, template, working properties KNOWLEDGE & UNDERSTANDING: seam, stitch, stitching, hem
END of UNIT EXPECTATIONS	END of UNIT EXPECTATIONS	END of UNIT EXPECTATIONS	END of UNIT EXPECTATIONS
Pupils will have sufficient textile skills to design and make a Viking money container that meets their design criteria; evaluated existing products; applied decorative techniques appropriately. Y4 EXT: Pupils will have developed a greater level of skill; tested appropriate fabrics and justified choices; made accurate design drawings; worked independently; made a product that is well-finished and works well.	Pupils will have reinforced their understanding of how a simple battery-operated circuit works and how it can be controlled using a switch; evaluating it against design criteria. Y4 EXT: Pupils will have considered a wider range of specialist functions and produced a product which is aesthetically pleasing and ergonomically sound.	Pupils will have developed an understanding of simple pneumatic systems; worked as part of a team to design and make a model alien with at least one moving part controlled by a pneumatic system. Y4 EXT: Pupils will have developed an understanding of simple pneumatic systems in products in the wider world; made a design which takes into account the available resources.	Pupils will have used information from investigating soft toys to inform their own design; designed and made a soft toy with appropriate materials and techniques; been able to evaluate appearance of the final soft-toy. Y4 EXT: Pupils will have worked independently and systematically to design and make a soft-toy of high quality; been able to give clear reasons for choosing a specific idea, taking account of construction methods; identified why they made changes as their design developed.