



DT

Design and Technology Curriculum Intent: At Barley Croft we aim to deliver DT as an inspiring, practical, progressive subject that stimulates our children's imagination as well as build on new skills that engage them in a practical hands-on experience in a progressive and systematic way which allows them to make links to their learning. We aim to teach it in a way that creates an aspirational and stimulating environment where children can showcase their learning innovatively to a range of audiences. We also aim to provide children the opportunities to self-reflect by evaluating their designs and ideas and how to improve them.

Implementation:

Impact: At Barley Croft Primary School our children will be able to...

1. Learn how to safely use a knife, kettle, hob and oven for cooking.
2. Understand the eatwell guide to healthy eating.
3. Eat sampled food from different countries and cultures.
4. Grow and nurture a vegetable from a seed, then harvesting and eating the produce.
5. Experience a variety of tool and learning what they can do i.e. hammer, saw, drill, glue gun.
6. Try to build a simple project using different materials – wood, fabric, metal- and different tools.
7. Be able to problem solve how to attach different materials together using: nails, screws, glue gun, tape.
8. Create and follow a plan of something you would like to make.
9. Become resilient, when things do not work/look how you want first time – keep trying and find a solution.
10. Try to be eco-friendly – upcycle or repurpose objects in and around the school.

	EYFS F1	EYFS F2	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
EYFSP & Dev. Matters & National Curriculum	<u>Expressive Art & Design – ELG's;</u> <u>2020 New Early Adopter Curriculum</u>		Key Stage 1 Pupils should be taught: 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, mock-ups and, where appropriate, information and communication technology Make - select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]		Key Stage 2 Pupils should be taught: 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, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities Evaluate			

		- select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics Evaluate - explore and evaluate a range of existing products - 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. Cooking and nutrition - use the basic principles of a healthy and varied diet to prepare dishes - understand where food comes from		- 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 - 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] - 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. Cooking and nutrition - 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.			
Designing		To draw on own experience to generate ideas. To identify a target group for what they intend to design and make. To model ideas in card and paper. To suggest ideas and explanations.	To generate ideas by drawing on own and other's experiences. To identify a purpose for designs. To develop design ideas through discussion, observation,	To generate ideas for an item, considering its purpose and the user/s. To identify a purpose and establish criteria for a successful product. To explore, develop and communicate design	To generate ideas, considering the purposes for which they are designing. To carry out research to identify a purpose and establish criteria for a successful product.	To generate ideas through mind mapping and identify a purpose for the product. To use results of investigations, information sources, including ICT when developing design ideas. To examine, develop and communicate aspects of their design proposals by modelling ideas	

		To make simple drawings and label parts.	drawing and modelling. To make simple drawings and label parts and the materials required.	proposals by modelling ideas. To make drawings with labels when designing. To consider the order of work before starting. Year A Autumn Designing and making Roman Catapults Year B Spring Design and make a game	To develop a clear idea of what has to be done, plan how to use materials, equipment and processes, and suggesting alternative methods of making if the first attempts fail. To make labelled drawings from different views showing specific features. To roughly plan the order of work before starting Year A Autumn Designing and making Roman Catapults Year B Spring Design and make a game	what has to be done, plan how to use materials, equipment and processes, and suggesting alternative methods of making if the first attempts fail. To communicate ideas through detailed labelled drawings. To plan the order of their work in writing Year A Project How do you let your light shine (Building an illuminated house) Year B Project Who writes history. (Textiles) Is there a dark side of the moon (Space Centre workshop) Do the Ancient Greeks still live on? (Cooking)	in a variety of ways. To plan the order of work, choosing appropriate materials, tools and techniques. Year A Project How do you let your light shine (Building an illuminated house) Year B Project Who writes history. (Textiles) Is there a dark side of the moon (Space Centre workshop) Do the Ancient Greeks still live on? (Cooking)
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Make (General)		To make a product from their design using the techniques below. To measure, mark out, cut and shape a range of materials with help. To use simple tools safely e.g. scissors, hole punch, butter knife To assemble, join and combine materials and components together using a variety of temporary methods glues, masking tape and cool melt glue gun. To use simple finishing techniques to improve the appearance of their product Cycle B – Summer	To begin to select tools and materials; use vocabulary to name and describe them. To measure, cut and score with some accuracy. To use hand tools safely and appropriately. As previous year plus craft knife and hack saw To assemble, join and combine materials in order to make a product. To choose and use appropriate finishing techniques and explain the reasoning for the technique. Cycle B – Summer	To select tools and techniques for making a product. To measure, mark out, cut, score and assemble components with more accuracy. To work safely and accurately with a range of simple hand tools. To join and combine materials and components accurately in temporary and permanent ways. To think about ideas as progress is made and consider how changes could be made.	To select appropriate tools and techniques for making a product. To measure, mark out, cut and shape a range of materials, using appropriate tools, equipment and techniques. To use different tools and equipment safely and accurately. To join and combine materials and components accurately in temporary and permanent ways. To think about ideas as progress is made and consider how changes could be made. To use finishing techniques to strengthen and improve the appearance of a	To select appropriate materials, tools and techniques. To measure and mark out accurately. To use different tools and equipment for different purposes, safely and accurately. To construct products using permanent joining techniques. To make modifications as a design progresses. To achieve a quality product. Year A Project How do we find our way (Shaduf) How do you let your light shine (Building an illuminated house) Year B Project Who writes history. (Textiles) Is there a dark side of the moon (Space Centre workshop)	To select appropriate tools, materials, components and techniques. To construct products using permanent joining techniques. To make modifications as a design progresses. To achieve a quality product. Year A Project How do we find our way (Shaduf) How do you let your light shine (Building an illuminated house) Year B Project Who writes history. (Textiles) Is there a dark side of the moon (Space Centre workshop)
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				To use finishing techniques to strengthen and improve the appearance of a product using a range of equipment. Year A Autumn Designing and making Roman Catapults - Levers Year B Spring Design and make a game – Pulleys/linkage s/gears	product using a range of equipment. Year A Autumn Designing and making Roman Catapults - levers Year B Spring Design and make a game – Pulleys/linkages/ gears		
Make (Food Technology)		To select and use appropriate fruit and vegetables, processes and tools with support. E.g. Butter knife, sharp knife under 1:1 supervision. To use basic food handling, hygienic practices and personal hygiene.	To select and use appropriate fruit and vegetables, processes and tools. E.g. sharp knife in small group, grater, To follow safe procedures for food safety and hygiene	To suggest appropriate fruit and vegetables, processes and tools. To begin to weigh and measure accurately (time, dry ingredients, liquids).	To suggest appropriate fruit and vegetables, processes and tools. To begin to weigh and measure more accurately (time, dry ingredients, liquids). To demonstrate hygienic food	To suggest and use appropriate fruit and vegetables, processes and tools. To weigh and measure accurately (time, dry ingredients, liquids). To apply the rules for basic food hygiene and other safe practices e.g.	To suggest and use appropriate fruit and vegetables, processes and tools. To weigh and measure accurately (time, dry ingredients, liquids). To apply the rules for basic

		To know that they should wash their hands before preparing or eating food. Cycle A – Summer	To know how to wash hand effectively and why before preparing or eating food. Cycle A – Summer	To demonstrate hygienic food preparation and storage. Year B – Summer – make a Savoury dish	preparation and storage Year B – Summer – make a Savoury dish	hazards relating to the use of ovens. Year B - Do the Ancient Greeks still live on? (Cooking)	food hygiene and other safe practices e.g. hazards relating to the use of ovens Year B - Do the Ancient Greeks still live on? (Cooking)
Make (Textiles)		To explore a variety of techniques weaving, finger knitting, fabric crayons , pre-cut binca To attempt to thread and weave, cut, glue and trim material. To use a plastic needle and pre-cut binca to create a running stitch. Cycle A – Summer	To explore a variety of techniques for sewing and binca. To thread a needle, weave, stitch, knot and use other manipulative skills. To cut, shape and join fabric to make a simple garment using basic sewing techniques – running stitch Cycle A – Summer	To investigate a variety of techniques, including weaving, French knitting, tie-dyeing, fabric crayons and wax or oil resist, appliqué and embroidery. To thread a needle, weave, stitch, cut and join with some accuracy. To measure, tape or pin, cut and join fabric with some accuracy. To use basic	To investigate a variety of techniques, including weaving, French knitting, tie-dyeing, fabric crayons and wax or oil resist, appliqué and embroidery. To thread a needle with appropriate length of thread. To cut, join and trim with increasing accuracy. To be aware of different stitches,	To examine and use a variety of techniques, including printing, dyeing, quilting, weaving, embroidery, paper and plastic trappings and appliqué. To thread smaller needles. To accurately cut, join and trim. To use different stitches, weaves and knits. To measure, tape or pin, cut and join fabric with some accuracy.	To examine and use a variety of techniques, including printing, dyeing, quilting, weaving, embroidery, paper and plastic trappings and appliqué. To accurately cut, join and trim. To select different stitches, weaves and knits. To pin, sew and stitch materials together to create a product. Year B - Who writes history (Make do and mend – using different natural dyeing techniques)

				sewing techniques	weave and knit.	Year B - Who writes history (Make do and mend – using different natural dying techniques)	
Evaluating processes and products		To evaluate products by discussing how well it works in relation to the purpose. To evaluate products by asking questions about the design process. To say what is good about their design and how it meets the purpose.	To evaluate products against the original design. To say what is good about their design and how it meets the purpose and establish any changes that they could make next time. To talk about ideas and state likes and dislikes	To evaluate products against original design criteria e.g. how well it meets its intended purpose. To disassemble and evaluate familiar products. Year A – Autumn – catapults Year B – Spring – game Year B – Summer – cooking Year A Autumn Designing and making Roman Catapults - Levers Year B Spring Design and make a game – Pulleys/linkage s/gears	To evaluate products both during and at the end of the assignment. To evaluate products carrying out appropriate tests. Year A – Autumn – catapults Year B – Spring – game Year B – Summer – cooking Year A Autumn Designing and making Roman Catapults - Levers Year B Spring Design and make a game – Pulleys/linkages/g ears	To evaluate products against the original design specification. To evaluate products personally and seek evaluation from others. Year A Project How do you let your light shine (Building an illuminated house) Year B Project Who writes history. (Textiles) Is there a dark side of the moon (Space Centre workshop) Do the Ancient Greeks still live on? (Cooking)	To evaluate a product, against original design specification s, identifying strengths and areas for development , and carrying out appropriate tests. To record evaluations using drawings with labels Year A Project How do you let your light shine (Building an illuminated house) Year B Project Who writes history. (Textiles) Is there a dark side of the moon (Space Centre workshop) Do the Ancient Greeks still live on? (Cooking)

Progression of Key Vocabulary

Designing		planning, investigating, design, evaluate, make, user, purpose, ideas, product	investigating, planning, design, make, evaluate, user, purpose, ideas, design criteria, product, function	user, purpose, design, model, evaluate, prototype, annotated sketch, function, functional, innovative, investigate, label, drawing, planning, design criteria, appealing	evaluating, design brief, design criteria, innovative, prototype, user, purpose, function, appealing, planning, annotated sketch, sensory evaluations	design decisions, functionality, authentic, user, purpose, design specification, research, evaluate, design criteria, annotate, evaluate, mock-up, prototype	
Make (General)		cut, fold, join, fix, wall, tower, weak, strong, base, top, underneath, side, thinner, thicker, corner, straight, metal, wood, plastic, circle, triangle, square, rectangle, card, masking, tape, paper fastener, pull, push, up, down, straight, forwards, backwards	three- dimensional (3-D), structure, framework, surface, edge, point, cuboid, cube, cylinder, curve, vehicle, wheel, axle, axle holder, chassis, body, cab assembling, cutting, joining, shaping, finishing, names of tools,	tabs, joining, material, reduce, reuse, recycle, font, lettering, text, slider, lever, pivot, bridge/gui de, mechanism , linkage, slot, bridge, guide system	shell structure, accuracy, stiff, strong, shaping, mechanism, pivot, linear, rotary, oscillating, rotation, reciprocating, fixed, free moving	capacity, marking out, scoring, adhesives, assemble, corrugating, ribbing, laminating, graphics, pulley, drive belt, gear, axle, motor, circuit, switch, circuit diagram, annotated drawings, exploded diagrams, mechanical system, electrical	Frame, structure, stiffen, strengthen, reinforce, triangulation, stability, shape, join, temporary, permanent, spindle, driver, follower, ratio, transmit

			equipment and materials used			system, input, process, output	
Make (Food Technology)		fruit and vegetable names, names of equipment and utensils, sensory vocabulary e.g. soft, juicy, crunchy, sweet, sticky, smooth, sharp, crisp, sour, hard, flesh, skin, seed, pip, core, slicing, peeling, cutting, squeezing, healthy diet, choosing, ingredients	fruit and vegetable names, names of equipment and utensils, sensory vocabulary e.g. soft, juicy, crunchy, sweet, sticky, smooth, sharp, crisp, sour, hard, flesh, skin, seed, pip, core, slicing, peeling, cutting, squeezing, healthy diet, choosing, ingredients	products, utensils, techniques, ingredients, texture, taste, sweet, sour, hot, spicy, appearance, smell, greasy, moist, cook, fresh, savoury, hygienic, edible, grown, varied diet, fat, sugar, carbohydrate, dairy, protein, vitamins, nutrients, nutrition, equipment, healthy, name, cook, fresh, savoury, hygienic, edible, grown, reared, caught, frozen, tinned, processed, seasonal, harvested	varied diet, fat, sugar, carbohydrate, dairy, protein, vitamins, nutrients, nutrition, equipment, healthy, name, cook, fresh, savoury, hygienic, edible, grown, reared, caught, frozen, tinned, processed, seasonal, harvested, products, utensils, techniques, ingredients, texture, taste, sweet, sour, hot, spicy, appearance, smell, greasy, moist	ingredients, yeast, dough, bran, flour, whole meal, unleavened, baking soda, spice, herbs, healthy, varied, gluten, allergy, intolerance, savoury, source, seasonality, utensils, combine, fold, knead, stir, pour, mix, rubbing in, whisk, beat, roll out, shape, sprinkle, crumble	ingredients, yeast, dough, bran, flour, whole meal, unleavened, baking soda, spice, herbs, healthy, varied, gluten, allergy, intolerance, savoury, source, seasonality, utensils, combine, fold, knead, stir, pour, mix, rubbing in, whisk, beat, roll out, shape, sprinkle, crumble

Make (Textiles)		scissors, needle, thread, wool, names of all fabrics and components used, template, decorate, weave, print, cut, fold	pattern pieces, mark out, join, finish, sew, pleat, ruffle, tear, fray, stretch, elastic	fabric, names of fabrics, fastening, compartment, zip, button, structure, finishing technique, strength, weakness, stiffening, templates, stitch	seam, seam allowance, sewing machine, hand stitch, machine stitch, manipulate, measure, accurate, mark, pin	seam, seam allowance, wadding, reinforce, right side, wrong side, hem, template, pattern pieces, pins, needles, thread, pinking shears, fastenings	name of textiles and fastenings used
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