Design and Technology
at
Castle Camps C. of E. (V.C.) Primary School

Life in all its fullness

Intent

At Castle Camps, children receive a design and technology curriculum which allows them to exercise and develop their creativity through designing and making. The children are taught to combine their designing and making skills with knowledge and understanding in order to design and make a product. Skills are taught progressively to ensure that all children are able to learn and practice in order to develop as they move through the school. Evaluation is an integral part of the design process and allows children to adapt and improve their product; this is a key skill which they will implement throughout their life. Design and Technology allows children to apply the knowledge and skills learned in other subjects across the curriculum, particularly Maths, Science and Art. Children's interests are captured through project design briefs, giving them purpose, motivation and meaning for their learning.

Implementation

At Castle Camps, we use a variety of teaching and learning styles in DT lessons. There is a mixture of whole class teaching as well as group and individual activities depending on the task. In all classes we recognise that there are children of differing ability so a range of learning opportunities are available to support all children. We achieve this through a range of strategies e.g. open-ended tasks where children can select different skills and tools to use, setting tasks of increasing difficulty, providing challenges and extensions and also through the use of an adult for support in some circumstances. Children have the opportunity both to work on their own and to collaborate with others. They are encouraged to listen to and comment on the work of their friends.

We teach the National Curriculum, supported by clear skills and knowledge progression. This ensures that skills and knowledge are built on year on year and sequenced appropriately to maximise learning for all children. DT is taught in alternate half-terms to Art. The teachers cover the D&T units in ways which benefit the class. They either teach it weekly or may prefer to use a block of time to complete the work depending on the unit. Their individual planning will indicate which method they have chosen. All teaching of DT follows the design, make, evaluate cycle. Each stage is rooted in technical knowledge. The design process is rooted in real-life. Relevant contexts give meaning to learning and provide a purpose for the project. While making, children are given the choice of a range of tools to select from. To evaluate, children are encouraged to evaluate their own products against a design criteria. Each of these steps are rooted in technical knowledge and vocabulary. DT is taught to a high standard, where each of the stages are given equal importance.

Impact

By the time our pupils leave Castle Camps Primary School, they will have:

- ✔ An excellent attitude to learning and independent working.
- ✔ The ability to use time efficiently and work constructively and productively with others.
- ✔ The ability to carry out thorough research, show initiative and ask questions to develop an exceptionally detailed knowledge of users' needs.
- ✔ The ability to act as responsible designers and makers, working ethically, using finite materials carefully and working safely.
- ✔ A thorough knowledge of which tools, equipment and materials to use to make their products.
- ✔ The ability to apply mathematical and scientific knowledge and skills accurately.
- ✔ The ability to manage risks exceptionally well to manufacture products safely and hygienically.
- ✔ A passion for the subject and a desire to explore their learning further in the future.

Assessment and Recording

Teachers assess children's work in Design and Technology by making informal judgements as they are being observed during lessons. On completion of a piece of work, children's work is shared, celebrated and evaluated through verbal feedback, both peer to peer and adult to pupil. Evidence may be seen in the children's Art/ DT books, on 2D displays, through 3D models and photographs of children's work. Once a unit of work has been completed, a teacher assessment judgement is made about the work of each pupil in relation to the end of unit expectations.

At the end of the year DT is reported to parents as part of the child's annual school report. We use this as the basis for assessing the progress of the child and we pass this information on to the next teacher at the end of the year. We also share our work through community celebration; open days; google classroom; the school website and facebook.

Resources

The school has a wide range of resources to support the teaching of Design and Technology across the school. Classrooms have a range of basic resources, with the more specialised equipment being kept in the Design and Technology/ Art resource cupboard along with products for food technology.

Health and Safety

In Design and Technology, the general teaching requirement for health and safety applies. Children are taught how to follow proper procedures when using tools and materials and for food safety and hygiene.

National Curriculum

Purpose of study

Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.

Aims

The national curriculum for design and technology aims to ensure that all pupils:

- develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world
- build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users
- critique, evaluate and test their ideas and products and the work of others
- understand and apply the principles of nutrition and learn how to cook

Attainment targets

By the end of each key stage, pupils are expected to know, apply and understand the matters, skills and processes specified in the relevant programme of study.
Schools are not required by law to teach the example content in (square brackets).

Subject Content

Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts (for example, the home, school, leisure, culture, enterprise, industry and the wider environment).

When designing and making, pupils should be taught to:

End of Key Stage Expectations

EYFS	Key Stage 1	Key Stage 2
Characteristics of effective learning	**Design**	
Show curiosity about objects, events and people Questions why things happen Engage in open-ended activity Thinking of ideas Find ways to solve problems / find new ways to do things / test their ideas Use senses to explore the world around them Create simple representations of events, people and objects Planning, making decisions about how to approach a task, solve a problem and reach a goal Checking how well their activities are going Changing strategy as needed Reviewing how well the approach worked **Early Learning Goals** Choose the resources they need for their chosen activities Handle equipment and tools effectively Children know the importance for good health of a healthy diet	• 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	• 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 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, including construction materials, textiles and ingredients, according to their characteristics.	• 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

<table>
<tr><td rowspan="6">They safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.

Children use what they have learnt about media and materials in original ways, thinking
about uses and purposes.

They represent their own ideas, thoughts and feelings through design and technology</td><td colspan="2">Evaluate</td></tr>
<tr><td>● explore and evaluate a range of existing products

● evaluate their ideas and products against design criteria</td><td>● 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</td></tr>
<tr><td colspan="2">Technical knowledge</td></tr>
<tr><td>● 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.</td><td>● 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.</td></tr>
<tr><td colspan="2">Cooking and Nutrition</td></tr>
<tr><td>● use the basic principles of a healthy and varied diet to prepare dishes

● understand where food comes from</td><td>● 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</td></tr>
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Progression of Skills							
	EYFS	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**
DESIGN	*Select appropriate resources *Use gestures, talking and arrangements of materials and components to show design * Use contexts set by the teacher and myself *Use language of designing and making (join, build, shape, longer, shorter, heavier etc.)	* have own ideas * explain what I want to do *explain what my product is for, and how it will work * use pictures and words to plan, begin to use models * design a product for myself following design criteria *research similar existing products	* have own ideas and plan what to do next * explain what I want to do and describe how I may do it * explain purpose of product, how it will work and how it will be suitable for the user * describe design using pictures, words, models, diagrams, begin to use ICT * design products for myself and others following design criteria * choose best tools and materials, and explain choices * use knowledge of existing products to produce ideas	*begin to research others' needs * show design meets a range of requirements * describe purpose of product * follow a given design criteria * have at least one idea about how to create product * create a plan which shows order, equipment and tools *describe design using an accurately labelled sketch and words * make design decisions *explain how product will work * make a prototype * begin to use computers to show design	* use research for design ideas * show design meets a range of requirements and is fit for purpose *begin to create own design criteria *have at least one idea about how to create product and suggest improvements for design. * produce a plan and explain it to others *say how realistic plan is. *include an annotated sketch *make and explain design decisions considering availability of resources *explain how product will work * make a prototype *begin to use computers to show design.	*use internet and questionnaires for research and design ideas *take a user's view into account when designing * begin to consider needs/wants of individuals/groups when designing and ensure product is fit for purpose *create own design criteria * have a range of ideas *produce a logical, realistic plan and explain it to others. *use cross-sectional planning and annotated sketches * make design decisions considering time and resources. *clearly explain how parts of product will work. *model and refine design ideas by making prototypes and using pattern pieces. *use computer-aided designs	* draw on market research to inform design * use research of user's individual needs, wants, requirements for design * identify features of design that will appeal to the intended user * create own design criteria and specification * come up with innovative design ideas *follow and refine a logical plan. *use annotated sketches, cross-sectional planning and exploded diagrams * make design decisions, considering, resources and cost * clearly explain how parts of design will work, and how they are fit for purpose * independently model and refine

							design ideas by making prototypes and using pattern pieces * use computer-aided designs

MAKE	*Construct with a purpose, using a variety of resources *Use simple tools and techniques *Build / construct with a wide range of objects *Select tools & techniques to shape, assemble and join *Replicate structures with materials / components *Discuss how to make an activity safe and hygienic *Record experiences by drawing, writing, voice recording *Understand different media can be combined for a purpose	*explain what I'm making and why *consider what I need to do next *select tools/equipment to cut, shape, join, finish and explain choices *measure, mark out, cut and shape, with support *choose suitable materials and explain choices *try to use finishing techniques to make product look good *work in a safe and hygienic manner	*explain what I am making and why it fits the purpose *make suggestions as to what I need to do next. *join materials/components together in different ways *measure, mark out, cut and shape materials and components, with support. *describe which tools I'm using and why *choose suitable materials and explain choices depending on characteristics. *use finishing techniques to make product look good *work safely and hygienically	*select suitable tools/equipment, explain choices; begin to use them accurately * select appropriate materials, fit for purpose. * work through plan in order *consider how good product will be * begin to measure, mark out, cut and shape materials/components with some accuracy * begin to assemble, join and combine materials and components with some accuracy * begin to apply a range of finishing techniques with some accuracy	* select suitable tools and equipment, explain choices in relation to required techniques and use accurately *select appropriate materials, fit for purpose; explain choices * work through plan in order. * realise if product is going to be good quality * measure, mark out, cut and shape materials/components with some accuracy *assemble, join and combine materials and components with some accuracy *apply a range of finishing techniques with some accuracy	* use selected tools/equipment with good level of precision * produce suitable lists of tools, equipment/materials needed *select appropriate materials, fit for purpose; explain choices, considering functionality * create and follow detailed step-by-step plan * explain how product will appeal to an audience * mainly accurately measure, mark out, cut and shape materials/components *mainly accurately assemble, join and combine materials/components * mainly accurately apply a range of finishing techniques * use techniques that involve a small number of steps * begin to be resourceful with practical problems	* use selected tools and equipment precisely *produce suitable lists of tools, equipment, materials needed, considering constraints * select appropriate materials, fit for purpose; explain choices, considering functionality and aesthetics * create, follow, and adapt detailed step-by-step plans *explain how product will appeal to audience; make changes to improve quality * accurately measure, mark out, cut and shape materials/components * accurately assemble, join and combine materials/components * accurately apply a range of finishing techniques

							* use techniques that involve a number of steps * be resourceful with practical problems

EVALUATE	*Adapt work if necessary *Dismantle, examine, talk about existing objects/structures *Consider and manage some risks *Practise some appropriate safety measures independently *Talk about how things work *Look at similarities and differences between existing objects / materials / tools *Show an interest in technological toys *Describe textures	*talk about my work, linking it to what I was asked to do * talk about existing products considering: use, materials, how they work, audience, where they might be used *talk about existing products, and say what is and isn't good * talk about things that other people have made *begin to talk about what could make product better	* describe what went well, thinking about design criteria * talk about existing products considering: use, materials, how they work, audience, where they might be used; express personal opinion *evaluate how good existing products are *talk about what I would do differently if I were to do it again and why	* look at design criteria while designing and making *use design criteria to evaluate finished product * say what I would change to make design better *begin to evaluate existing products, considering: how well they have been made, materials, whether they work, how they have been made, fit for purpose * begin to understand by whom, when and where products were designed * learn about some inventors/designers / engineers/chefs/ manufacturers of ground-breaking products	*refer to design criteria while designing and making *use criteria to evaluate product * begin to explain how I could improve original design *evaluate existing products, considering: how well they've been made, materials, whether they work, how they have been made, fit for purpose * discuss by whom, when and where products were designed * research whether products can be recycled or reused * know about some inventors/designers/ engineers/chefs/manufacturers of ground-breaking products	*evaluate quality of design while designing and making *evaluate ideas and finished product against specification, considering purpose and appearance. *test and evaluate final product * evaluate and discuss existing products, considering: how well they've been made, materials, whether they work, how they have been made, fit for purpose * begin to evaluate how much products cost to make and how innovative they are *research how sustainable materials are *talk about some key inventors/designers/ engineers/ chefs/manufacturers of ground-breaking products	*evaluate quality of design while designing and making; is it fit for purpose? * keep checking design is best it can be. *evaluate ideas and finished product against specification, stating if it's fit for purpose *test and evaluate final product; explain what would improve it and the effect different resources may have had *do thorough evaluations of existing products considering: how well they've been made, materials, whether they work, how they've been made, fit for purpose *evaluate how much products cost to make and how innovative they are *research and discuss how sustainable materials are *consider the impact of products beyond their intended purpose

							*discuss some key inventors/designers/ engineers/ chefs/manufacturers of ground-breaking products
VOCABULARY		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, functional, innovative, investigate, label, drawing, function, planning, design criteria, annotated sketch, appealing	evaluating, design brief design criteria, innovative, prototype, user, purpose, function, prototype, design criteria, innovative, appealing, design brief, planning, annotated sketch, sensory evaluations	design decisions, functionality, authentic, user, purpose, design specification, design brief, innovative, research, evaluate, design criteria, annotate, evaluate, mock-up, prototype	function, innovative, design specification, design brief, user, purpose design brief, design specification, prototype, annotated sketch, purpose, user, innovation, research, functional, mock-up, prototype
	Progression of skills in Technical knowledge						
Materials and structures		*begin to measure and join materials, with some support *describe differences in materials *suggest ways to make material/product stronger	*measure materials *describe some different characteristics of materials *join materials in different ways *use joining, rolling or folding to make it stronger *use own ideas to try to make product stronger	*use appropriate materials *work accurately to make cuts and holes * join materials *begin to make strong structures	*measure carefully to avoid mistakes *attempt to make product strong *continue working on product even if original didn't work *make a strong, stiff structure	*select materials carefully, considering intended use of product and appearance *explain how product meets design criteria *measure accurately enough to ensure precision *ensure product is strong and fit for purpose *begin to reinforce and strengthen a 3D frame	*select materials carefully, considering intended use of the product, the aesthetics and functionality. *explain how product meets design criteria * reinforce and strengthen a 3D frame

Structures Vocabulary		cut, fold, join, fix, structure, wall, tower, framework, weak, strong, base, top, underneath, side, edge, surface, thinner, thicker, corner, point, straight, curved, metal, wood, plastic, circle, triangle, square, rectangle, cuboid, cube, cylinder		shell structure, three-dimensional (3-D) shape, net, cube, cuboid, prism, vertex, edge, face, length, width, breadth, capacity, marking out, scoring, shaping, tabs, adhesives, joining, assemble, accuracy, material, stiff, strong, reduce, reuse, recycle, corrugating, ribbing, laminating, font, lettering, text, graphics, decision,		frame structure, stiffen, strengthen, reinforce, triangulation, stability, shape, join, temporary, permanent	
Mechanisms		*begin to use levers or slides	*use levers or slides *begin to understand how to use wheels and axles	*select appropriate tools / techniques *alter product after checking, to make it better *begin to try new/different ideas *use simple lever and linkages to create movement	*select most appropriate tools / techniques *explain alterations to product after checking it *grow in confidence about trying new / different ideas. *use levers and linkages to create movement *use pneumatics to create movement	*refine product after testing *grow in confidence about trying new / different ideas *begin to use cams, pulleys or gears to create movement	*refine product after testing, considering aesthetics, functionality and purpose *incorporate hydraulics and pneumatics *be confident to try new / different ideas *use cams, pulleys and gears to create movement
Mechanisms Vocabulary		slider, lever, pivot, slot, bridge/guide, card, masking, tape, paper fastener, join, pull, push, up, down, straight, curve, forwards, backwards, vehicle, wheel, axle, axle, holder, chassis, body, cab, assembling, cutting, joining, shaping, finishing, fixed, free, moving, mechanism names of tools, equipment and materials used		mechanism, lever, linkage, pivot, slot, bridge, guide system, input, process, output, linear, rotary, oscillating, reciprocating		pulley, drive belt, gear, rotation, spindle, driver, follower, ratio, transmit, axle, motor, circuit, switch, circuit diagram, annotated drawings, exploded diagrams, mechanical system, electrical system, input, process, output	

Textiles		*measure, cut and join textiles to make a product, with some support *choose suitable textiles	*measure textiles *join textiles together to make a product, and explain how I did it *carefully cut textiles to produce accurate pieces *explain choices of textile *understand that a 3D textile structure can be made from two identical fabric shapes.	*****join different textiles in different ways *choose textiles considering appearance and functionality *begin to understand that a simple fabric shape can be used to make a 3D textiles project	*****think about user when choosing textiles *think about how to make product strong * begin to devise a template *explain how to join things in a different way *understand that a simple fabric shape can be used to make a 3D textiles project	*****think about user and aesthetics when choosing textiles *use own template * think about how to make product strong and look better *think of a range of ways to join things *begin to understand that a single 3D textiles project can be made from a combination of fabric shapes.	*****think about user's wants/needs and aesthetics when choosing textiles *make product attractive and strong *make a prototype *use a range of joining techniques *think about how product might be sold *think carefully about what would improve product *understand that a single 3D textiles project can be made from a combination of fabric shapes.
Textiles Vocabulary		joining and finishing techniques, tools, fabrics and components, template, pattern pieces, mark out, join, decorate, finish		fabric, names of fabrics, fastening, compartment, zip, button, structure, finishing technique, strength, weakness, stiffening, templates, stitch, seam, seam allowance		seam, seam allowance, wadding, reinforce, right side, wrong side, hem, template, pattern pieces, name of textiles and fastenings used, pins, needles, thread, pinking shears, fastenings,	

Food and Nutrition	*Begin to understand some food preparation tools, techniques and processes *Practise stirring, mixing, pouring, blending *Discuss how to make an activity safe and hygienic *Discuss use of senses *Understand need for variety in food *Begin to understand that eating well contributes to good health	*describe textures *wash hands & clean surfaces *think of interesting ways to decorate food *say where some foods come from, (i.e. plant or animal) *describe differences between some food groups (i.e. sweet, vegetable etc.) *discuss how fruit and vegetables are healthy *cut, peel and grate safely, with support	*explain hygiene and keep a hygienic kitchen *describe properties of ingredients and importance of varied diet *say where food comes from (animal, underground etc.) *describe how food is farmed, home-grown, caught *draw eat well plate; explain there are groups of food *describe “five a day” *cut, peel and grate with increasing confidence	*carefully select ingredients *use equipment safely *make product look attractive *think about how to grow plants to use in cooking *begin to understand food comes from UK and wider world *describe how healthy diet= variety/balance of food/drinks *explain how food and drink are needed for active/healthy bodies. *prepare and cook some dishes safely and hygienically *grow in confidence using some of the following techniques: peeling, chopping, slicing, grating, mixing, spreading, kneading and baking	*explain how to be safe/hygienic *think about presenting product in interesting/ attractive ways *understand ingredients can be fresh, pre-cooked or processed *begin to understand about food being grown, reared or caught in the UK or wider world *describe eat well plate and how a healthy diet=variety / balance of food and drinks *explain importance of food and drink for active, healthy bodies *prepare and cook some dishes safely and hygienically *use some of the following techniques: peeling, chopping, slicing, grating, mixing, spreading, kneading and baking	*explain how to be safe / hygienic and follow own guidelines *present product well - interesting, attractive, fit for purpose *begin to understand seasonality of foods *understand food can be grown, reared or caught in the UK and the wider world *describe how recipes can be adapted to change appearance, taste, texture, aroma *explain how there are different substances in food / drink needed for health *prepare and cook some savoury dishes safely and hygienically including, where appropriate, use of heat source * use range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.	*understand a recipe can be adapted by adding / substituting ingredients *explain seasonality of foods *learn about food processing methods *name some types of food that are grown, reared or caught in the UK or wider world *adapt recipes to change appearance, taste, texture or aroma. *describe some of the different substances in food and drink, and how they can affect health *prepare and cook a variety of savoury dishes safely and hygienically including, where appropriate, the use of heat source. *use a range of techniques confidently such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.

Food Vocabulary		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,		name of products, names of equipment, utensils, techniques and ingredients texture, taste, sweet, sour, hot, spicy, appearance, smell, preference, greasy, moist, cook, fresh, savoury, hygienic, edible, grown, reared, caught, frozen, tinned, processed, seasonal, harvested healthy/varied diet		ingredients, yeast, dough, bran, flour, wholemeal, unleavened, baking soda, spice, herbs, fat, sugar, carbohydrate, protein, vitamins, nutrients, nutrition, healthy, varied, gluten, dairy, allergy, intolerance, savoury, source, seasonality, utensils, combine, fold, knead, stir, pour, mix, rubbing in, whisk, beat, roll out,shape, sprinkle, crumble	
Electrical Systems				*use simple circuit in product *learn about how to program a computer to control product.	*use number of components in circuit *program a computer to control product	*incorporate switch into product *confidently use number of components in circuit **begin to be able to program a computer to monitor changes in environment and control product	*use different types of circuit in product * think of ways in which adding a circuit would improve product * program a computer to monitor changes in environment and control product
Electrical Vocabulary				series circuit, fault, connection, toggle switch, push-to-make switch, push-to-break switch, battery, battery holder, bulb, bulb holder, wire, insulator, conductor, crocodile clip, control, program, system, input device, output device		reed switch, toggle switch, push-to-make switch, push-to-break switch, light dependent resistor (LDR), tilt switch, light emitting diode (LED), bulb, bulb holder, battery, battery holder, USB cable, wire, insulator, conductor, crocodile clip control, program, system, input device, output device, series circuit, parallel circuit	

- The curriculum is planned to ensure a **clear progression and development of skills** through EYFS, KS1 and KS2. Underpinning this development of skills is a focus on designing, making and evaluating products, combined with a development of technical knowledge.
- The curriculum is planned to ensure a **broad range of design technology** areas are covered, including the use of construction materials, textiles and cooking.
- Where possible and purposeful, design technology will be **linked across the curriculum** to other subjects, in particular Geography/History topics.
- The curriculum aims to ensure that all pupils develop the creative, technical and practical expertise to perform everyday tasks confidently and to participate successfully in an increasingly technological world.

Whole School Subject Overview: 3 year plan

Year A 2021/2022

Hedgehog Class	**Autumn 1** **Ourselves and Autumn**	**Autumn 2** **Colour and Celebration**	**Spring 1** **Where We Live including People Who Help Us.**	**Spring 2** **Favourite Authors**	**Summer 1** **Farm Animals and Growing**	**Summer 2** **Wonderful Water**
	***Junk modelling** Chn have on-going access to this in continuous provision all year round with support to learn and apply skills eg. joining techniques, as appropriate					
	Junk Modelling * Scissor skills * Assembling, joining and finishing skills * Design and planning * Ability to follow design * Ability to talk about their design **Food** Pumpkin Soup	**Using Clay:** Diwa lamps. **Junk modelling** Fireworks **Food** Chapatis Christmas baking	**Weaving** Emergency Vehicles. **Food** Noodles (CNewYear) Pancake Day	**Junk Modelling** Making musical instruments. **3d Cards.** Easter and Mothers days. **Food** Making porridge Easter Baking	**3d Models** Making animals **Food** Cooking based on vegetables grown.	**Design project** Make a floating boat. **Food** Fruit kebabs (lighthouses) Plan a healthy picnic
Squirrel Class	**Autumn 1** **Queen Victoria and the Victorians**	**Autumn 2** **Queen Victoria and the Victorians**	**Spring 1** **Florence Nightingale**	**Spring 2** **Local history**	**Summer 1** **Africa/Kenya - A contrasting locality**	**Summer 2** **Africa/Kenya - A contrasting locality**
	Mechanisms: Creating moving paper toys.		**Food & Nutrition:** make a healthy meal for Florence Nightingale to serve in the hospitals.		**Textiles:** Design and make a musical instrument (African Drum)	
Rabbit Class	**Autumn 1** **Queen Victoria and the Victorians**	**Autumn 2** **Queen Victoria and the Victorians -**	**Spring 1** **Stone Age to Iron Age**	**Spring 2** **Local History RAF and Airfield**	**Summer 1** **Africa/Kenya - A contrasting locality**	**Summer 2** **Africa/Kenya - A contrasting locality**
	Food & Nutrition - plan, design and make a Victorian picnic			Mechanisms - Model aeroplanes	Textiles - Batik purse/pencil case	

Badger Class	**Autumn 1** **Rainforests**	**Autumn 2**	**Spring 1** **Vikings**	**Spring 2**	**Summer 1** **Local history**	**Summer 2**
	Textiles: recreating the layers of the rainforest		Mechanisms: Viking longboats		Food and nutrition : Regional dishes	
Deer Class	**Autumn 1** **Battle of Britain**	**Autumn 2**	**Spring 1** **Crime and Punishment**	**Spring 2**	**Summer 1** **Fieldwork UK and Europe**	**Summer 2**
		Structure and electricity - Bunker design and build	Mechanisms - miniature stocks		Food and Nutrition - Cooking	

Year B 2022/2023

Hedgehog Class	**Autumn 1** Ourselves and Starting School.	**Autumn 2** Festivals and Fireworks	**Spring 1** Traditional Tales	**Spring 2** Explorers including Jungle and Dinosaurs	**Summer 1** Mini Beasts and Growing.	**Summer 2** Holidays and Transport.
	<u>*Junk modelling</u> Chn have on-going access to this in continuous provision all year round with support to learn and apply skills eg. joining techniques, as appropriate					
	<u>Junk Modelling</u> * Scissor skills * Assembling, joining and finishing skills * Design and planning * Ability to follow design * Ability to talk about their design **<u>Food</u>** Making Bread (red hen)	**<u>Using Clay:</u>** Diwa lamps. **<u>Junk modelling</u>** Fireworks **<u>Food</u>** Chapatis Christmas baking	**<u>Sewing</u>** Making puppets **<u>Food</u>** Noodles (CNewYear) Porridge Pancake Day	**<u>Junk Modelling</u>** Making binoculars **<u>3d Cards.</u>** Easter and Mothers days. **<u>Food</u>** Easter Baking	**<u>3D</u>** Designing traps for Evil Pea **<u>Food</u>** Cooking based on vegetables grown.	**<u>Design project</u>** Make a moving vehicle. **<u>Food</u>** Fruit kebabs (pirates)

Squirrel Class	**Autumn 1** Where in the World?	**Autumn 2** Where in the World?	**Spring 1** The Great Fire of London	**Spring 2** The Great Fire of London	**Summer 1** Fieldwork and our local area	**Summer 2** Fieldwork and our local area
	Food and Nutrition: Food from around the world		**Materials and structures:** Tudor House		**Textiles:** Make Coronation bunting (sewing)	
Rabbit Class	**Autumn 1** Where in the World	**Autumn 2** Where in the World	**Spring 1** Stone Age to Iron Age	**Spring 2** The Great Fire of London	**Summer 1** Fieldwork and our local area	**Summer 2** Fieldwork and our local area
	Textiles: make an animal puppet		Mechanisms: Iron age chariots		Food and Nutrition: Cook Vegetable soup using local produce	
Badger Class	**Autumn 1** **The Romans**	**Autumn 2**	**Spring 1** **UK study**	**Spring 2**	**Summer 1** **Australia compared to UK**	**Summer 2**
		Materials and structures: Roman Mosaics		Materials and structures: Build bridges		Food and nutrition: Cooking lamingons
Deer Class	**Autumn 1** **Anglo Saxons and Scots**	**Autumn 2**	**Spring 1** **Volcanoes and Earthquakes**	**Spring 2**	**Summer 1** **Round the world in 80 days**	**Summer 2**
	Textiles: Make a tunic		Electrical systems - Make a volcano		Food and Nutrition - Cooking	

Year C 2023/2024

Hedgehog Class	**Autumn 1**	**Autumn 2**	**Spring 1**	**Spring 2**	**Summer 1**	**Summer 2**
As year A						
Squirrel Class	**Autumn 1** Explorers and Adventurers	**Autumn 2** Explorers and Adventurers	**Spring 1** Wonderful Weather	**Spring 2** Wonderful Weather	**Summer 1** Holidays past and present/Grace Darling	**Summer 2** Holidays past and present/Grace Darling
		Mechanisms: Design and make moon buggies (axles/wheels)		**Structures:** Kite making		**Textiles:** Puppet for a Punch and Judy show.
Rabbit Class	**Autumn 1** Ancient Egypt	**Autumn 2** Ancient Egypt	**Spring 1** Wonderful Weather	**Spring 2** Wonderful Weather	**Summer 1** Holidays past and present/Grace Darling	**Summer 2** Holidays past and present/Grace Darling
	Structures: pyramids - make strong structures		Food: Health and nutrition linked to bread		Electricity : make a working lighthouse	
Badger Class	**Autumn 1**	**Autumn 2** **The Great War**	**Spring 1** **Fieldwork UK and Europe**	**Spring 2**	**Summer 1** **The Monarchy**	**Summer 2**
		Structure and electricity - Bunker design and build		Mechanisms: Creating transport	Textiles: sew crowns and crests	
Deer Class	**Autumn 1** **The Greeks**	**Autumn 2**	**Spring 1** **The Shang Dynasty**	**Spring 2**	**Summer 1** **Global Marketplace**	**Summer 2**
	Materials and structures - Labyrinth from wood		**Food and Nutrition - Chinese banquet**		**Textiles - Sewing**	

SEND within DT
Click on this link: https://dera.ioe.ac.uk/13788/1/designandtechnology.pdf

SMSC in Design and Technology

Spiritual D.T supports spiritual development by allowing pupils the opportunity to exercise imagination, inspiration, intuition and insight through creativity and risk taking in analysing, designing and manufacturing a range of products. It instils a sense of awe, wonder and mystery when studying the natural world or human achievement. Encouraging creativity allows pupils to express innermost thoughts and feelings and to reflect and learn from reflection, for example, asking 'why?', 'how?' and 'where?'.	Moral D.T supports moral development by raising awareness of the moral dilemmas by encouraging pupils to value the environment and its natural resources and to consider the environmental impact of everyday products. It educates pupils to become responsible consumers.
Social D.T Supports social development by providing opportunities to work as a team, recognising others' strengths and sharing equipment. Design Technology promotes equality of opportunity and provides an awareness of areas that have gender issues e.g. encouraging girls to use equipment that has been traditionally male dominated.	Cultural D.T supports cultural development by encouraging children to reflect on ingenious products and inventions, the diversity of materials and ways in which design technology can improve the quality of life. It investigates how different cultures have contributed to technology and reflects on products and inventions, the diversity of materials and ways in which design can improve the quality of our lives.

Our Feeder Secondary Schools

	Linton Village College	**Samuel Ward**	**St Bede's**
DT Curriculum Links	https://lvc.org/design-technology/	https://samuelward.co.uk/department/design-technology	https://www.st-bedes.org.uk/Curriculum/Design-Technology/