

Gainford CE Primary and Preschool

Teaching Sequence for DT

Year 1 DT

Topic or Activity	Term 1 Knowledge Based Learning Objectives	Term 2 Knowledge Based Learning Objectives	Term 3 Knowledge Based Learning Objectives
Textiles - Stitches	<p>I have my own ideas</p> <p>I can use pictures and words to plan, begin to use models</p> <p>I can design a product for myself following design criteria</p> <p>I can explain what I'm making and why</p> <p>I can select tools/equipment to cut, shape, join, finish and explain choices</p> <p>I can measure, mark out, cut and shape, with support</p> <p>I can choose suitable materials and explain choices</p> <p>I can try to use finishing techniques to make product look good</p> <p>I can talk about my work, linking it to what I was asked to do</p> <p>I can talk about existing products considering: use, materials, how they work, audience, where they might be used</p> <p>I can begin to talk about what could make product better</p> <p>I can measure, cut and join textiles to make a product, with some support</p> <p>I can choose suitable textiles</p>	<p>I can talk about my work, linking it to what I was asked to do</p> <p>I can talk about existing products considering: use, materials, how they work, audience, where they might be used</p> <p>I can talk about existing products, and say what is and isn't good</p> <p>I can talk about things that other people have made</p> <p>I can begin to talk about what could make product better</p>	
Mechanisms – Sliders and levers		<p>I have my own ideas</p> <p>I can explain what I want to do</p> <p>I can explain what my product is for, and how it will work</p> <p>I can use pictures and words to plan, begin to use models</p> <p>I can design a product for myself following design criteria</p> <p>I can research similar existing products</p> <p>I can explain what I'm making and why</p> <p>I can consider what I need to do next</p> <p>I can select tools/equipment to cut, shape, join, finish and explain choices</p> <p>I can choose suitable materials and explain choices</p> <p>I can try to use finishing techniques to make product look good</p> <p>I can talk about my work, linking it to what I was asked to do</p> <p>I can talk about existing products considering: use, materials, how they work, audience, where they might be used</p> <p>I can talk about existing products, and say what is and isn't good</p> <p>I can talk about things that other people have made</p> <p>I can begin to talk about what could make product better</p> <p>I am beginning to use levers or slides</p>	
Cooking & Nutrition – Healthy packed lunch			<p>I am beginning to understand that all food comes from plants or animals.</p> <p>I can explore the understanding that food has to be farmed, grown elsewhere (e.g. home) or caught.</p> <p>I am starting to understand how to name and sort foods into the five groups in 'The Eat well plate'</p> <p>I am beginning to understand that everyone should eat at least five</p>

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			<p>portions of fruit and vegetables every day.</p> <p>I know how to prepare simple dishes safely and hygienically, without using a heat source.</p> <p>I know how to use techniques such as cutting, peeling and grating.</p>
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Teaching Sequence for DT

Year 2 DT

Topic or Activity	Term 1 Knowledge Based Learning Objectives	Term 2 Knowledge Based Learning Objectives	Term 3 Knowledge Based Learning Objectives
Structures – Freestanding structures	<ul style="list-style-type: none"> • I can have my own ideas and plan what to do next. • I can explain what I want to do and describe how I may do it. • I can describe design using pictures, words, models, diagrams, begin to use ICT. • I can explain what I am making and why it fits the purpose. • I can make suggestions as to what I need to do next. • I can choose best tools and materials, and explain choices. • I can describe what went well, thinking about design criteria • I can talk about existing products considering: use, materials, how they work, audience, where they might be used; express personal opinion • I can evaluate how good existing products are • I can talk about what I would do differently if I were to do it again and why • I can measure materials. • I can describe some different characteristics of materials. • I can join materials in different ways. • I can use joining, rolling or folding to make it stronger. • I can use own ideas to try to make product stronger. 		
Mechanisms – Wheels and axels		<ul style="list-style-type: none"> • I can have my own ideas and plan what to do next • I can explain what I want to do and describe how I may do it • I can explain purpose of product, how it will work and how it will be suitable for the user • I can describe design using pictures, words, models, diagrams, begin to use ICT • I can design products for myself and others following design criteria • I can choose best tools and materials, and explain choices. • I can use knowledge of existing products to produce ideas. • I can explain what I am making and why it fits the purpose. • I can make suggestions as to what I need to do next. • I can join materials / components together in different ways. • I can describe which tools I'm using and why • I can choose suitable materials and explain choices depending on characteristics. • I can describe what went well, thinking about design criteria • I can talk about existing products considering: use, materials, how they 	

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		<p>work, audience, where they might be used; express personal opinion</p> <ul style="list-style-type: none"> • I can evaluate how good existing products are • I can talk about what I would do differently if I were to do it again and why • I can use levers or sliders • I am beginning to understand how to use wheels and axles. 	
<p>Cooking & Nutrition – Design a salad</p>			<ul style="list-style-type: none"> • I understand that all food comes from plants or animals. • I know that food has to be farmed, grown elsewhere (e.g. home) or caught. • I understand how to name and sort foods into the five groups in 'The Eat well plate' • I know that everyone should eat at least five portions of fruit and vegetables every day. • I can demonstrate how to prepare simple dishes safely and hygienically, without using a heat source. • I can demonstrate how to use techniques such as cutting, peeling and grating.

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Year 3 DT

Topic or Activity	Term 1 Knowledge Based Learning Objectives	Term 2 Knowledge Based Learning Objectives	Term 3 Knowledge Based Learning Objectives
Structures	<ul style="list-style-type: none"> • I can begin to research others' needs • I can show design meets a range of requirements • I can describe purpose of product • I can follow a given design criteria • I have at least one idea about how to create product • I can describe design using an accurately labelled sketch and words • I can make design decisions • begin to use computers to show design • I can select suitable tools/equipment, explain choices; begin to use them accurately • I can select appropriate materials, fit for purpose. • I can work through plan in order • I can consider how good product will be • I can begin to measure, mark out, cut and shape materials/components with some accuracy • I can begin to assemble, join and combine materials and components with some accuracy • I can begin to apply a range of finishing techniques with some accuracy • I can look at design criteria while designing and making • I can use design criteria to evaluate finished product • I can say what I would change to make design better • I can begin to evaluate existing products, considering: how well they have been made, materials, whether they work, how they have been made, fit for purpose • I can begin to understand by whom, when and where products were designed • I can learn about some inventors/designers/ engineers/chefs/manufacturers of ground-breaking products • I can use appropriate materials • I can work accurately to make cuts and holes • I can join materials • I can begin to make strong structures 		
Mechanisms		<ul style="list-style-type: none"> • I can begin to research others' needs • I can follow a given design criteria • I have at least one idea about how to create product • I can describe design using an accurately labelled sketch and words • I can make design decisions • I can explain how product will work • I can make a prototype • I can begin to use computers to show design • I can select suitable tools/equipment, explain choices; begin to use them accurately 	

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		<ul style="list-style-type: none"> • I can select appropriate materials, fit for purpose. • I can work through plan in order • I can consider how good product will be • I can begin to assemble, join and combine materials and components with some accuracy • I can begin to apply a range of finishing techniques with some accuracy • I can look at design criteria while designing and making • I can use design criteria to evaluate finished product • I can say what I would change to make design better • I can begin to evaluate existing products, considering: how well they have been made, materials, whether they work, how they have been made, fit for purpose • I can begin to understand by whom, when and where products were designed • I can learn about some inventors/designers/ engineers/chefs/ manufacturers of ground-breaking products • I can select appropriate tools / techniques • I can alter product after checking, to make it better • I can begin to try new/different ideas • I can use simple lever and linkages to create movement 	
<p style="text-align: center;">Cooking & Nutrition</p>			<ul style="list-style-type: none"> • I am starting to know that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world. • I understand how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source. • I am beginning to understand how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking. • I am starting to understand that a healthy diet is made up from a variety and balance of different food and drink, as depicted in 'The Eat well plate' • I am beginning to know that to be active and healthy, food and drink are needed to provide energy for the body.

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Year 4 DT

Topic or Activity	Term 1 Knowledge Based Learning Objectives	Term 2 Knowledge Based Learning Objectives	Term 3 Knowledge Based Learning Objectives
Textiles	<ul style="list-style-type: none"> • I can use research for design ideas • I can show design meets a range of requirements and is fit for purpose • I can have at least one idea about how to create product and suggest improvements for design. • I can produce a plan and explain it to others • I can include an annotated sketch • I can make and explain design decisions considering availability of resources • I can select appropriate materials, fit for purpose; explain choices • I can realise if product is going to be good quality • I can measure, mark out, cut and shape materials/components with some accuracy • I can assemble, join and combine materials and components with some accuracy • I can apply a range of finishing techniques with some accuracy • I can refer to design criteria while designing and making • I can use criteria to evaluate product • I can begin to explain how I could improve original design • I can evaluate existing products, considering: how well they've been made, materials, whether they work, how they have been made, fit for purpose • I can discuss by whom, when and where products were designed • I can research whether products can be recycled or reused • I can know about some inventors/designers/engineers/chefs/manufacturers of ground-breaking products • I can think about user when choosing textiles • I can think about how to make product strong • I can begin to devise a template • I can explain how to join things in a different way • I can understand that a simple fabric shape can be used to make a 3D textiles project 		
Electricity		<ul style="list-style-type: none"> • I can begin to create own design criteria • I can have at least one idea about how to create product and suggest improvements for design. • I can produce a plan and explain it to others • I can say how realistic plan is. • I can include an annotated sketch • I can make and explain design decisions considering availability of resources • I can explain how product will work • I can make a prototype 	

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		<ul style="list-style-type: none"> • I can begin to use computers to show design • I can select suitable tools and equipment, explain choices in relation to required techniques and use accurately • I can select appropriate materials, fit for purpose; explain choices • I can work through plan in order. • I can realise if product is going to be good quality • I can measure, mark out, cut and shape materials/components with some accuracy • I can assemble, join and combine materials and components with some accuracy • I can apply a range of finishing techniques with some accuracy • I can refer to design criteria while designing and making • I can use criteria to evaluate product • I can begin to explain how I could improve original design • I can discuss by whom, when and where products were designed • I can know about some inventors/designers/engineers/chefs/manufacturers of ground-breaking products • I can use number of components in circuit • I can program a computer to control product 	
<p>Cooking & Nutrition – Healthy savoury dish</p>			<ul style="list-style-type: none"> • I understand that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world. • I understand how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source. • I know how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking. • I know that a healthy diet is made up from a variety and balance of different food and drink, as depicted in 'The Eat well plate' • I know that to be active and healthy, food and drink are needed to provide energy for the body.

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Year 5 DT

Topic or Activity	Term 1 Knowledge Based Learning Objectives	Term 2 Knowledge Based Learning Objectives	Term 3 Knowledge Based Learning Objectives
Structures	<p>I can begin to consider needs/wants of individuals/groups when designing and ensure product is fit for purpose</p> <p>I can create own design criteria</p> <p>I can have a range of ideas</p> <p>I can produce a logical, realistic plan and explain it to others.</p> <p>I can use cross-sectional planning and annotated sketches</p> <p>I can make design decisions considering time and resources.</p> <p>I can clearly explain how parts of product will work.</p> <p>I can model and refine design ideas by making prototypes and using pattern pieces.</p> <p>I can use computer-aided designs</p> <p>I can use selected tools/equipment with good level of precision</p> <p>I can produce suitable lists of tools, equipment / materials needed</p> <p>I can select appropriate materials, fit for purpose; explain choices, considering functionality</p> <p>I can create and follow detailed step-by-step plan</p> <p>I can explain how product will appeal to an audience</p> <p>I can mainly accurately measure, mark out, cut and shape materials/components</p> <p>I can mainly accurately assemble, join and combine materials/components</p> <p>I can mainly accurately apply a range of finishing techniques</p> <p>I can use techniques that involve a small number of steps</p> <p>I can begin to be resourceful with practical problems</p> <p>I can evaluate ideas and finished product against specification, considering purpose and appearance.</p> <p>I can evaluate and discuss existing products, considering: how well they've been made, materials, whether they work, how they have been made, fit for purpose</p> <p>I can research how sustainable materials are</p> <p>I can talk about some key inventors / designers / engineers / chefs / manufacturers of ground-breaking products</p> <p>I can measure carefully to avoid mistakes</p> <p>I can attempt to make product strong</p> <p>I can continue working on product even if original didn't work</p> <p>I can make a strong, stiff structure</p>		
Mechanisms		<p>I can use internet and questionnaires for research and design ideas</p> <p>I can take a user's view into account when designing</p> <p>I can create own design criteria</p> <p>I can have a range of ideas</p>	

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		<p>I can produce a logical, realistic plan and explain it to others.</p> <p>I can make design decisions considering time and resources.</p> <p>I can clearly explain how parts of product will work.</p> <p>I can model and refine design ideas by making prototypes and using pattern pieces.</p> <p>I can use computer-aided designs</p> <p>I can use selected tools/equipment with good level of precision</p> <p>I can produce suitable lists of tools, equipment / materials needed</p> <p>I can create and follow detailed step-by-step plan</p> <p>I can explain how product will appeal to an audience</p> <p>I can mainly accurately measure, mark out, cut and shape materials/components</p> <p>I can mainly accurately assemble, join and combine materials/components</p> <p>I can mainly accurately apply a range of finishing techniques</p> <p>I can use techniques that involve a small number of steps</p> <p>I can evaluate ideas and finished product against specification, considering purpose and appearance.</p> <p>I can evaluate and discuss existing products, considering: how well they've been made, materials, whether they work, how they have been made, fit for purpose</p> <p>I can test and evaluate final product</p> <p>I can begin to evaluate how much products cost to make and how innovative they are</p> <p>I can research how sustainable materials are</p> <p>I can talk about some key inventors / designers / engineers / chefs / manufacturers of ground-breaking products</p> <p>I can select most appropriate tools / techniques</p> <p>I can explain alterations to product after checking it</p> <p>I can grow in confidence about trying new / different ideas.</p> <p>I can use levers and linkages to create movement</p> <p>I can use pneumatics to create movement</p>	
Cooking & Nutrition			<p>I understand that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world.</p> <p>I am beginning to understand that seasons may affect the food available.</p> <p>I understand how food is processed into ingredients that can be eaten or used in cooking.</p> <p>I know how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source.</p>

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			<p>I am starting to understand how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.</p> <p>I am beginning to understand that different food and drink contain different substances – nutrients, water and fibre – that are needed for health.</p>
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Year 6 DT

Topic or Activity	Term 1 Knowledge Based Learning Objectives	Term 2 Knowledge Based Learning Objectives	Term 3 Knowledge Based Learning Objectives
Textiles	<p>I can draw on market research to inform design</p> <p>I can use research of user's individual needs, wants, requirements for design</p> <p>I can identify features of design that will appeal to the intended user</p> <p>I can create own design criteria and specification</p> <p>I can come up with innovative design ideas</p> <p>I can follow and refine a logical plan.</p> <p>I can use annotated sketches, cross-sectional planning and exploded diagrams</p> <p>I can make design decisions, considering, resources and cost</p> <p>I can use computer-aided designs</p> <p>I can produce suitable lists of tools, equipment, materials needed, considering constraints</p> <p>I can select appropriate materials, fit for purpose; explain choices, considering functionality and aesthetics</p> <p>I can create, follow, and adapt detailed step-by-step plans</p> <p>I can explain how product will appeal to audience; make changes to improve quality</p> <p>I can accurately measure, mark out, cut and shape materials/components</p> <p>I can accurately assemble, join and combine materials / components</p> <p>I can accurately apply a range of finishing techniques</p> <p>I can use techniques that involve a number of steps</p> <p>I can keep checking design is best it can be.</p> <p>I can evaluate ideas and finished product against specification, stating if it's fit for purpose</p> <p>I can 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</p> <p>I can evaluate how much products cost to make and how innovative they are</p> <p>I can research and discuss how sustainable materials are</p> <p>I can discuss some key inventors / designers / engineers / chefs / manufacturers of ground-breaking products</p> <p>I can think about user's wants/needs and aesthetics when choosing textiles</p> <p>I can make product attractive and strong</p> <p>I can make a prototype</p> <p>I can use a range of joining techniques</p> <p>I can think about how product might be sold</p> <p>I can think carefully about what would improve product</p>		

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	<p>I can understand that a single 3D textiles project can be made from a combination of fabric shapes.</p>		
<p>Electricity</p>		<p>I can use research of user's individual needs, wants, requirements for design I can identify features of design that will appeal to the intended user I can come up with innovative design ideas I can follow and refine a logical plan. I can use annotated sketches, cross-sectional planning and exploded diagrams I can clearly explain how parts of design will work, and how they are fit for purpose I can independently model and refine design ideas by making prototypes and using pattern pieces I can use selected tools and equipment precisely I can produce suitable lists of tools, equipment, materials needed, considering constraints I can select appropriate materials, fit for purpose; explain choices, considering functionality and aesthetics I can create, follow, and adapt detailed step-by-step plans I can explain how product will appeal to audience; make changes to improve quality I can accurately measure, mark out, cut and shape materials/components I can accurately assemble, join and combine materials / components I can accurately apply a range of finishing techniques I can use techniques that involve a number of steps I can be resourceful with practical problems I can evaluate quality of design while designing and making; is it fit for purpose? I can keep checking design is best it can be. I can evaluate ideas and finished product against specification, stating if it's fit for purpose I can test and evaluate final product; explain what would improve it and the effect different resources may have had I can 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 I can evaluate how much products cost to make and how innovative they are I can research and discuss how sustainable materials are I can consider the impact of products beyond their intended purpose I can discuss some key inventors / designers / engineers / chefs / manufacturers of ground-breaking products</p>	

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		<p>I can use different types of circuit in product</p> <p>I can think of ways in which adding a circuit would improve product</p> <p>I can program a computer to monitor changes in environment and control product</p>	
Cooking & Nutrition			<p>I know that food is grown (such as tomatoes, wheat and potatoes), reared (such as pigs, chickens and cattle) and caught (such as fish) in the UK, Europe and the wider world.</p> <p>I understand that seasons may affect the food available.</p> <p>I understand how food is processed into ingredients that can be eaten or used in cooking.</p> <p>I know how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source.</p> <p>I understand how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking.</p> <p>I know different food and drink contain different substances – nutrients, water and fibre – that are needed for health.</p>