



Filey C E Nursery & Infants Academy

‘Inspiring Confident Learners, Reflecting Christian Values’

We endeavour to uphold Christian teaching to:

“Shine as lights in the world and love as Jesus loves us” (Philippians 2:15, John 13.34)

Our school is a Church of England School rooted in ‘Compassion, Community and Friendship’.

Design and Technology Progression Document

Designing			
Nursery	Reception	Year 1	Year 2
Substantive Knowledge			
<ul style="list-style-type: none"> • To know that they can change their ideas to make them even better. • To know how to self select resources they will need from a range of tools and resources. 	<ul style="list-style-type: none"> • To know that designers make a plan of their ideas before starting. • To know how to draw a simple plan of what they would like to make. • To know how to describe what they will use and what they will need. • To know that there are a range of different materials and resources that can be used to make a model and they are all different. 	<ul style="list-style-type: none"> • To understand that when we design products they should have a clear purpose and an intended user. • To know that simple design criteria can be used to inform a design. • To know that design criteria is a list of points to ensure the product meets the needs and wants of the user. • To know that looking at existing objects and designs can help us to create our own designs. • To know how to draw their own labelled design and talk through their ideas. • To know that in Design and 	<ul style="list-style-type: none"> • To know that products should be purposeful, functional and appealing when designing. • To know how to use design criteria to design a product. • To know that designs can be adapted during the process of creating. • To know that exploring how existing products have been made can help us to design our own products. • To know how to generate, develop, model and communicate their ideas through talking, drawing, templates, mock ups and where appropriate ICT.

		<p>technology we call a plan a 'design'.</p> <ul style="list-style-type: none"> To know that drawing a design idea helps us to see how an idea will look. 	
Disciplinary Knowledge			
<ul style="list-style-type: none"> To explore a range of materials, decide what they would like to make and talk about their ideas for what they would like to make To begin to use the language of designing and making e.g. join, build, shape. . 	<ul style="list-style-type: none"> To talk about their ideas and draw a simple plan of what they would like to make. To talk about how they intend to put their model together. To adapt initial ideas to make them better. To use knowledge from exploration to inform design. To select appropriate tools and resources to create their design from those available. 	<ul style="list-style-type: none"> To create a design for a product with an intended purpose and user in mind. To consider simple design criteria when designing a product. To explore existing objects and designs to identify what they like and dislike about them. To draw on their own experience and research to help generate ideas . To generate, develop and communicate their ideas through talking and drawing including clearly labelled drawings that illustrate movement. To sequence steps for construction. 	<ul style="list-style-type: none"> To design purposeful, functional and appealing products for themselves and others. To create a design for a product which follows design criteria. To develop their design as their work progresses. To explore how existing products have been made. To generate ideas by drawing on their own and other people's experiences. To generate, develop, model and communicate their ideas through talking, drawing, templates, mock ups, and where appropriate ICT. To create a class design criteria.
Vocabulary			
idea, make, build	plan, join, create, draw, attach	planning, investigating, design, user, purpose, product, designer	design criteria, product, function, appealing, adapt, improve

Making			
Nursery	Reception	Year 1	Year 2
Substantive Knowledge			
<ul style="list-style-type: none"> To know the names of some materials and resources. To know scissors can be used to cut and shape materials. To know scissors must be used safely. To know glue and tape can be used to attach materials. 	<ul style="list-style-type: none"> To know that threading is putting one material through an object. To know how to hold scissors correctly in order to cut with increasing accuracy. To know how to use small tools including scissors safely. 	<ul style="list-style-type: none"> To know that we can construct accurately by measuring lines and marking them out for cutting using a ruler. To know that tools for cutting must be used safely. To know that textiles can be joined by glueing or stitching. To know that 'joining technique' means connecting two pieces of material together. To understand that different techniques for joining materials can be used for different purposes. To understand that a template (or fabric pattern) is used to cut out the same shape multiple times. 	<ul style="list-style-type: none"> To know the most appropriate tools and equipment to perform practical tasks e.g. cutting, shaping, joining and finishing. To know that sewing is a method of joining fabric. To know how to complete a running stitch by moving the needle in and out of the fabric at regular intervals. To know the importance of tying a knot after the final stitch. To know some real-life objects that contain mechanisms.
Disciplinary Knowledge			
<ul style="list-style-type: none"> Explore different materials freely, to develop their ideas about how to use them and what to make. Join different materials and explore different textures. Use one-handed tools and equipment, for example, making snips in paper with scissors. Begin to cut in a straight line. Learn how to use different glues and adhesive tapes. 	<ul style="list-style-type: none"> Begin to show accuracy and care when making. Cut with scissors in a curved line, a zig zag line and cut around a shape Construct 3D models. Fold and glue with increasing accuracy. Use a range of small tools including scissors safely, competently and confidently. 	<ul style="list-style-type: none"> To mark out lines for cutting. To use tools to cut safely. To construct 3D models including vehicles with free running wheels. To select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics. To cut, flatten, roll, shape and glue materials with increasing accuracy. 	<ul style="list-style-type: none"> To select from and use a wide range of tools, materials and components, including construction materials, textiles and ingredients, according to their characteristics, explaining their choices. To measure and mark out to the nearest centimetre. To follow procedures for safety and hygiene. To shape textiles and join them

<ul style="list-style-type: none"> • Tear and fold. 	<ul style="list-style-type: none"> • To join materials together permanently and temporarily. • Use different types of glue and adhesive tapes to join and attach materials. • To use a prepared needle and wool to practise threading. 	<ul style="list-style-type: none"> • To make stable structures from card, tape and glue • To adapt their work when it is not to their satisfaction. • To use joining methods to join fabrics. 	<ul style="list-style-type: none"> • using a running stitch. • To decorate textiles by printing or glueing on other decorations. • To create products with hinges, levers and pop ups. • To plan by suggesting what to do next. • To cut and shape materials and components neatly. • To assemble, join and combine materials and components. • To create joints and structures from paper/card and tape. • To build a strong and stiff structure by folding paper. • To make linkages using card for levers and split pins for pivots. • To experiment with linkages adjusting the widths, lengths and thicknesses of card used. • To thread a needle. • To sew running stitch, with evenly spaced, neat, even stitches to join fabric. • To follow a design to create moving models that use levers and sliders. • To adapt their work when it does not work as it should or to improve their work after testing it.
Vocabulary			
bricks, balance, stack, tower, build, join, stick cut, scissors, glue, tape, make, plan, tear, fold, model	tall, wide, enclosure, attach, strong, weak, tools, bake, cut, roll, construct, tools	movement, mechanism; wheels and axles, material, joining tools; strong, stiff, stable, function, template, develop, textile, structure, product, equipment, sew, knot, hinge, vehicle	functional, process, research, similar, benefit, link, sequence, error, adapt, levers, sliders

Evaluating			
Nursery	Reception	Year 1	Year 2
Substantive Knowledge			
<ul style="list-style-type: none"> To know that models and creations can be changed to make them better. 	<ul style="list-style-type: none"> To know how to identify what went well and how they could improve their own work and the work of others. 	<ul style="list-style-type: none"> To know that exploring existing products can give them ideas for their own designs. To know that evaluating their work will help them to improve their work in the future. 	<ul style="list-style-type: none"> To know that evaluating existing products can give them ideas for their own designs. To know how to evaluate their ideas and products against design criteria.
Disciplinary Knowledge			
<ul style="list-style-type: none"> To talk about what they have made and how they made it. To say their favourite and least favourite part of their model. 	<ul style="list-style-type: none"> To talk about their own work and the work of others. To share what they like about their own work, what worked well and how it could be improved. To check to see if their model matches their plan. To consider what they would do differently if they were to do it again. To make predictions about materials and test them out. To test their design and reflect on what could have been done differently. To reflect on a finished product and compare it to their plan. 	<ul style="list-style-type: none"> To talk about their design ideas and what they are making. To explore existing products and discuss what they like or dislike about them, what they are, who they are for and what they are for. To evaluate their own work according to the design criteria, sharing what went well and suggesting improvements. To test a finished product to see if it moves as planned and if not explaining how it can be fixed. To test wheel and axle mechanisms identifying anything that stops the wheels from turning and recognising that a wheel needs an axle in order to move. To reflect on their finished product, explaining likes and dislikes. 	<ul style="list-style-type: none"> To make simple judgements about their products and ideas against design criteria. To explore and evaluate a range of existing products including how products work, how products are used, where products might be used and what materials products are made from. To explore the features of different structures. To compare the stability of different shapes. To test the strength of own structures. To identify the weakest part of a structure. To evaluate the strength, stiffness and stability of their own structure. To use peer feedback to modify a final design.

			<ul style="list-style-type: none"> To identify aspects of their peers' work that they particularly like and why.
Vocabulary			
<p>I made this...</p> <p>I made it by...</p> <p>I did this...</p> <p>I've done this...</p>	<p>"I like the way the....</p> <p>"I can see you have put lots of detail in there/..."</p>	<p>evaluate, improve, I found....hard/easy because... I like / dislike because... I feel that.....next time. I could...</p>	<p>I think my.... is....because... Next time I could..... I found.....hard/easy because... I like / dislike...because... It was interesting because... I like this because..... I like the part where... because.... What I found hard about this work was..... I found this piece of work hard/easy because... In my opinion.....because...</p>

Technical Knowledge			
Nursery	Reception	Year 1	Year 2
Substantive Knowledge			
<ul style="list-style-type: none"> To know that different materials can be combined to create a model or structure. To widen their vocabulary so they can correctly explain what they are doing. 	<ul style="list-style-type: none"> To know that materials can be joined and attached using glue and tape. To begin to know and use the correct vocabulary for the materials, tools and processes used. 	<ul style="list-style-type: none"> To know that when building structures, materials can be joined securely using glue, sticky tape, masking tape and split pins. To understand that different techniques for joining materials can be used for different purposes. To know that a mechanism is the parts of an object that move together. To know about the movement of 	<ul style="list-style-type: none"> To know about the simple working characteristics of materials and components. To know that different materials have different properties and are therefore suitable for different uses. To know the correct technical vocabulary for the projects they are undertaking. To know about the movement of simple mechanisms such as levers

		<p>simple mechanisms such as wheels and axles.</p> <ul style="list-style-type: none"> • To understand that axles are used in structures and mechanisms to make parts turn in a circle. • To know that wheels need to be round to rotate and move. • To understand that for a wheel to move it must be attached to a rotating axle. • To know that an axle moves within an axle holder which is fixed to the vehicle or toy. • To know that the frame of a vehicle (chassis) needs to be balanced. • To know the correct technical vocabulary for the materials, tools and processes used. • • To understand that the shape of materials can be changed to improve the strength and stiffness of structures. • • To begin to understand that different structures are used for different purposes. 	<p>and sliders.</p> <ul style="list-style-type: none"> • To know that mechanisms are a collection of moving parts that work together as a machine to produce movement. • To know that a slider mechanism moves an object from side to side • To know that a slider mechanism has a slider, slots , guides and an object. • To know that bridges and guides are bits of card that purposefully restrict the movement of the slider. • To know that a lever is something that turns on a pivot. • To know that a linkage mechanism is made up of a series of levers. • To know how freestanding structures can be made stronger, stiffer and more stable. • To know that shapes and structures with wide, flat bases or legs are the most stable. • To understand that the shape of a structure affects its strength. • To know that materials can be manipulated to improve strength and stiffness. • To know that a 'stable' structure is one which is firmly fixed and unlikely to change or move. • To know that a 'strong' structure is one which does not break easily. • To know that a 'stiff' structure or material is one which does not bend easily.
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Disciplinary Knowledge			
<ul style="list-style-type: none"> To build and construct using a variety of materials. 	<ul style="list-style-type: none"> To build, exploring how to join and attach materials. To make simple suggestions to fix their model. 	<ul style="list-style-type: none"> To build structures, exploring how materials can be joined securely. To explore and use mechanisms e.g. wheels and axles in their products. 	<ul style="list-style-type: none"> To build structures, exploring how they can be made stronger, stiffer and more stable. To explore and use mechanisms e.g. lever and sliders in their products.
Vocabulary			
build, construct, stick, glue model, ,	join, attach, material	structure, wheel, axle, masking tape,	strong, stiff, stable, mechanism, lever, slider, linkage

Cooking and Nutrition			
Nursery	Reception	Year 1	Year 2
Substantive Knowledge			
<ul style="list-style-type: none"> To know the names of some ingredients. To know that they need to wash their hands before they work with food. To know that knives can be used to cut or spread and spoons can be used to mix. 	<ul style="list-style-type: none"> To know the names of a range of ingredients including common fruit and vegetables. To know that fruit and vegetables are grown. To know that different vegetables taste different to each other. To know that eating fruit and vegetables is good for us. To know that ingredients can be combined to make a dish. 	<ul style="list-style-type: none"> To know that all food comes from plants or animals. To know that foods can be grouped. To know the difference between fruit and vegetables. To know that a fruit has seeds and a vegetable does not. To know that fruits grow on trees or vines. To know that vegetables can grow either above or below the ground. 	<ul style="list-style-type: none"> To know that food has to be farmed, grown elsewhere (e.g. home) or caught. To understand where a range of different food comes from. To know that the 5 main food groups on the Eatwell Plate are: Carbohydrates, fruits and vegetables, protein, dairy and foods high in fat and sugar. To know that everyone should eat at

	<ul style="list-style-type: none"> • To know that washing their hands when handling food is important. • To know how to use a spoon to stir or mix and a knife to cut or chop. • To know that it is important to work safely to mix, stir, cut and chop. 	<ul style="list-style-type: none"> • To know that a knife can be used to cut, chop and slice to prepare food. • To know how to work hygienically with food. • To begin to understand the importance of a healthy and varied diet. 	<p>least five portions of fruit and vegetables everyday.</p> <ul style="list-style-type: none"> • To understand that I should eat a range of different foods from each food group. • To know that when working with food it is important to work hygienically in order to stay safe and healthy. • To know that we must work safely with utensils to prepare ingredients. • To know how to read an electronic scale in order to weigh. • To know that 'diet' means the food and drink that a human or animal usually eats or drinks. • To know how to use the bridge or claw grip when slicing food.
Disciplinary Knowledge			
<ul style="list-style-type: none"> • To cut or spread safely with support. • To mix ingredients using a spoon. • To begin to share opinions when tasting food. 	<ul style="list-style-type: none"> • To use a knife safely to cut or chop with support. • To use a spoon effectively to mix or stir. • To work safely to mix, stir, cut and chop. • To taste food and give opinions. • To begin to describe the look, smell and taste of food. 	<ul style="list-style-type: none"> • To begin to group foods e.g. fruit/vegetables. • To use a knife safely and to cut, chop and slice. • To combine ingredients to create a simple food dish without a heat source. • To describe the appearance, smell and taste of food. 	<ul style="list-style-type: none"> • To use the Eatwell Plate to group foods. • To work with food hygienically. • To assemble ingredients to create a dish without a heat source. • To weigh ingredients using electronic scales. • To use the basic principles of a healthy and varied diet to prepare dishes. • To work safely to cut, peel or grate ingredients. • To slice foods safely using the bridge or claw grip. • To describe the taste, texture and smell of food.

Vocabulary

knife, cut, spread, spoon, bowl, mix, flour, butter, sugar, taste, smell

sugar, flour, butter, mix, stir, cut, chop, healthy, ingredients

fruit, vegetable, group, cut, chop, slice, measuring cup, ingredients, dish, measure, plants, animals, healthy, varied, diet, appearance

cut, peel, grate, prepare, Eatwell Plate, fruit, vegetable, carbohydrates, protein, dairy, fats, sugar, assemble, weigh, gram, scales, healthy, varied, hygiene, hygienic, grown, farmed, caught, texture, bridge grip, claw grip