



Danegrove Primary School

DT Overview (2021-2022) by Year Group



Design and Technology is an inspiring, rigorous and practical subject. Design and Technology encourages children to learn to think and intervene creatively to solve problems both as individuals and as members of a team. At Danegrove, we encourage children to use their creativity and imagination, to design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. We aim to, wherever possible, link work to other disciplines such as mathematics, science, computing and art. The children are also given opportunities to reflect upon and evaluate past and present design technology, its uses and its effectiveness. Moreover they are encouraged to become innovators and risk-takers.

Objectives covering **Design**, **Make** and **Evaluate** are detailed in the progression map for each year group.
This 3 step approach should be in all units of work.

Year Group	Autumn	Spring	Summer
EYFS	<ul style="list-style-type: none">* Return to and build on their previous learning and refining their ideas when using construction toys and junk modelling.* Create collaboratively, sharing ideas resources and skills.* Develop fine motor skills including control, precision and hand eye coordination* Make a decoration with moving parts	<ul style="list-style-type: none">* Return to and build on their previous learning and refining their ideas when using construction toys and junk modelling.* Create collaboratively, sharing ideas resources and skills.* Develop fine motor skills including control, precision and hand eye coordination* Make a sandwich* Make a simple slider	<ul style="list-style-type: none">* Return to and build on their previous learning and refining their ideas when using construction toys and junk modelling.* Create collaboratively, sharing ideas resources and skills.* Develop fine motor skills including control, precision and hand eye coordination* Sewing
Year 1	<i>Santa Sleigh - Non-motorised Vehicles (Mechanisms)</i>	<i>Toys (Structures)</i>	<i>Moving Pictures (Seas and Oceans) (Mechanisms)</i>
	<ul style="list-style-type: none">*begin to understand how to use wheels and axles* understand the difference between a fixed and moving axle.*begin to construct a chassis.	<ul style="list-style-type: none">*begin to measure and join materials, with some support*describe differences in materials*suggest ways to make material/product stronger	<ul style="list-style-type: none">*begin to use levers or slides*to select the most appropriate mechanism for product being made.*begin to select most appropriate tool for making mechanism
Year 2	<i>Snowglobes (Structures)</i>	<i>Drawbridges (Structures/Mechanisms)</i>	<i>Tropical Fruit Salad (Nutrition)</i>

	<ul style="list-style-type: none"> *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 		<ul style="list-style-type: none"> *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 levers or slides *to understand how to use wheels and axles 	<ul style="list-style-type: none"> *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
Year 3	<i>Make your recreational area (Structures/Mechanisms)</i>	<i>Light up baubles (Electrical Circuits)</i>	<i>Balloon powered car (Mechanisms)</i>	<i>Pneumatic opening sarcophagus (Structures/Textiles/Mechanisms)</i>
	<ul style="list-style-type: none"> *use appropriate materials *work accurately to make cuts and holes * join materials *begin to make strong structures. *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 	<ul style="list-style-type: none"> *use simple circuit in product *learn about how to program a computer to control product. 	<ul style="list-style-type: none"> *select appropriate tools / techniques *alter product after checking, to make it better *begin to try new/different ideas *use pneumatics to create movement 	<ul style="list-style-type: none"> *use appropriate materials *work accurately to make cuts and holes * join materials *begin to make strong structures. *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 *select appropriate tools / techniques *alter product after checking, to make it better *begin to try new/different ideas *use pneumatics to create movement
Year 4	<i>Biscuit making (2D) (Food and Nutrition)</i>		<i>Make a Sandal (Textiles)</i>	<i>Earthquake-proof Buildings (Structures)</i>
	<ul style="list-style-type: none"> *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 		<ul style="list-style-type: none"> *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 	<ul style="list-style-type: none"> *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

	<ul style="list-style-type: none"> *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 		
Year 5	<p><i>Stockings (Textiles)</i></p> <ul style="list-style-type: none"> *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. 	<p><i>Make a Viking House (Structures)</i></p> <ul style="list-style-type: none"> *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 	<p><i>Fair trade chocolate (Food and Nutrition)</i></p> <ul style="list-style-type: none"> *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
	<p><i>Biscuit making (3D) (Food and Nutrition)</i></p> <ul style="list-style-type: none"> *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. 	<p><i>Morse Code Machines (Electrical Circuits)</i></p> <ul style="list-style-type: none"> *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 	<p><i>Balista launchers (motorised) (Mechanisms)</i></p> <ul style="list-style-type: none"> *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
Year 6			

	<ul style="list-style-type: none">*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.		
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