



# Churchfields Infants' School: Year Two curriculum information

## Design Technology



Outlined below is a summary of the skills children will work on during each half term in Year Two, along with some activities children will complete, key vocabulary that will be taught and ideas of how parents can help to develop this learning at home.

Half Term	Skills	Activities	Key Vocabulary	How can you help at home?
<b>Autumn 1</b>  <b>Are We Nearly There Yet?</b>	<ul style="list-style-type: none"> <li>- select from and use a range of tools and equipment to perform practical tasks</li> <li>- build structures, exploring how they can be made stronger, stiffer and more stable</li> </ul> <p><b>Revision:</b> - <i>the design process and elements of designing for a purpose</i></p>	<ul style="list-style-type: none"> <li>- designing and making a bridge Cc Science, learning strategies to build strength of their structure</li> </ul> <p><b>Revision:</b> - <i>designing by thinking about purpose and who will need to use your object</i></p>	<ul style="list-style-type: none"> <li>design</li> <li>purpose</li> <li>effectiveness</li> <li>user</li> <li>structure</li> <li>strength</li> <li>stiffness</li> <li>stability</li> <li>Brunel</li> </ul>	<ul style="list-style-type: none"> <li>- have a look at some different types of bridges. Which ones do you think would be the strongest and hold up the most weight?</li> <li>- find out some more information about Brunel, who designed lots of different bridges!</li> <li>- have a go at making your own bridge at home – think about what you might like to use and remember the tips you were given at school!</li> </ul>
<b>Autumn 2</b>  <b>Once Upon a Time...</b>	<ul style="list-style-type: none"> <li>- design purposeful, functional, appealing products for themselves and others based on design criteria</li> </ul>	<ul style="list-style-type: none"> <li>- designing and making a house for The Three Little Pigs Cc Science</li> <li>- designing and making a vehicle to carry items</li> </ul>	<ul style="list-style-type: none"> <li>design</li> <li>make</li> <li>evaluate</li> <li>purpose</li> <li>effectiveness</li> <li>user</li> <li>criteria</li> <li>functional</li> </ul>	<ul style="list-style-type: none"> <li>- have a go at making your own Three Little Pig house</li> <li>- explore the toy cars and other vehicles you may have at home and see if you can find out how they work</li> <li>- use some construction kits you may have at home (e.g. K'Nex, Lego) to make a vehicle. How does it move? What have</li> </ul>

	<ul style="list-style-type: none"> <li>- generate, develop, model and communicate ideas</li> <li>- apply skills to select from and use a range of tools and equipment to perform a practical task</li> <li>- select from and use a wide range of materials and components</li> <li>- explore and evaluate a range of existing products</li> <li>- evaluate their ideas and products against design criteria</li> <li>- explore and use mechanisms in their products</li> </ul> <p><b>Revision:</b></p> <ul style="list-style-type: none"> <li>- <i>the design process and elements of designing for a purpose</i></li> <li>- <i>apply skills in selecting from and using equipment from a selection</i></li> </ul>	<ul style="list-style-type: none"> <li>- evaluating existing toy cars using axles and wheels</li> <li>- learn how to use simple tools safely and efficiently</li> <li>- using axles correctly to allow their vehicle to travel</li> <li>- evaluating their design against the design criteria with their user in mind</li> </ul> <p><b>Revision:</b></p> <ul style="list-style-type: none"> <li>- <i>how to make structures more stable (adding weight to vehicles)</i></li> </ul>	<ul style="list-style-type: none"> <li>vehicle</li> <li>wheel</li> <li>axle</li> <li>axle holder</li> <li>chassis</li> <li>friction</li> <li>mechanism</li> <li>saw</li> <li>dowel</li> </ul> <ul style="list-style-type: none"> <li>assembling</li> <li>cutting</li> <li>joining</li> <li>shaping</li> <li>finishing</li> <li>fixed</li> <li>free</li> <li>moving</li> </ul>	<p>you put in place to allow the wheels to turn freely so your vehicle can travel?</p> <ul style="list-style-type: none"> <li>- use your vehicle to see which different types of surface it can travel over – does it work best on hard floor, carpet, tiles, grass, paving stones? Why? Could you improve your design to make it travel any better over some of the surfaces?</li> <li>- if you would like to, try junk modelling your own vehicle! You can use a straw with a kebab skewer through it, or a clothes peg fixed to the bottom of your chassis. See how much your vehicle can hold! If you all make one, maybe you could have a race?!</li> </ul>
<p><b>Spring 1</b></p>	<p><b>Revision:</b></p> <ul style="list-style-type: none"> <li>- <i>the design process and elements of</i></li> </ul>	<p><b>Revision:</b></p> <ul style="list-style-type: none"> <li>- <i>revisiting the design process and paying attention to a brief</i></li> </ul>	<ul style="list-style-type: none"> <li>design</li> <li>purpose</li> <li>effectiveness</li> <li>user</li> </ul>	<ul style="list-style-type: none"> <li>- have a go at some junk modelling and see what you can design! Who is it for and how can you tell that it will be useful for the purpose it was created for?</li> </ul>

<p><b>It's Cold Outside...</b></p>	<p><i>designing for a purpose</i>  - select from and use a range of tools and equipment to perform practical tasks  - using mechanisms (levers, wheels and axles)</p>	<p><i>before designing and creating products in Art (specific unit that is purely DT based to come in Spring 2)</i>  - increased opportunity to access resources using mechanisms in the playground and in class</p>		<p>- use what you were learning about mechanisms and see what you can design! Maybe there is a problem at home you could solve by designing an item to help?!</p>
<p><b>Spring 2</b>   <b>What the Eyes Don't See...</b></p>	<p>- understand where food comes from  - use the basic principles of a healthy and varied diet to prepare dishes  - use knives and other tools for cooking (e.g. graters) safely and carefully  - investigating a wider range of products as a way to be fully informed before designing and making their own  - working with a brief that becomes increasingly complex and demanding  <b>Revision:</b>  <i>- the design process and elements of</i></p>	<p>- market research around 'curries' and experiences of themselves and others in relation to this cuisine  - learning about where the different herbs and spices used in this type of food come from, and which ingredients are traditional  - preparing and tasting vegetables to support design of vegetable curry (knife skills)  - making raita to taste with their vegetables (other skills including using a grater)</p>	<p>cuisine  curry  spices  herbs  vegetables (plus naming)  spice  taste   knife  handle  blade  grater/grate  chop  slice  grip  hold  rock  bridge  push  safe  chopping board  careful</p>	<p>- allow your children to experiment in the kitchen with any herbs and spices you may have, and/or any ingredients specific to the food you eat at home, from your own background or just different cuisines you enjoy eating together! They love seeing and smelling (and maybe tasting?) them! Can you work out where these foods come from?  - see how many vegetables your child enjoys – if they are a little reluctant to eat them this may be a good opportunity to see if they're ready to 'broaden their horizons' a little?!  - encourage your child to use their knife skills and maybe help prepare a snack of vegetable sticks? As much as it seems worrying, children will be safer and more successful with an appropriately-sized, sharp knife to chop with!  - encourage your child to help you in the kitchen whenever you can manage it! This</p>

	<p><i>designing for a purpose</i></p> <p><i>- select from and use a range of tools and equipment to perform practical tasks</i></p>	<p>- designing and making their own vegetable curry!</p> <p>- evaluating against brief</p> <p><b>Revision:</b></p> <p><i>- revisiting the design process and paying attention to a brief before designing and creating product</i></p>	<p>peel</p> <p>rind</p> <p>zest</p> <p>skin</p> <p>seeds</p> <p>stalk</p> <p>research</p> <p>design</p> <p>purpose</p> <p>effectiveness</p> <p>user</p> <p>evaluate</p>	<p>develops so many skills, and above all, is SO much fun!</p>
<p><b>Summer 1</b></p> <p><b>From Out of the Ashes</b></p>	<p>- design purposeful, functional, appealing products for themselves and others based on design criteria</p> <p>- generate, develop, model and communicate ideas</p> <p>- apply skills to select from and use a range of tools and equipment to perform a practical task</p> <p>- select from and use a wide range of materials and components</p>	<p>- evaluating examples of puppet theatres that we have at school. How are they built and what makes them strong?</p> <p>- designing and creating their own puppet theatre construction by joining parts together to hold up and support a performance later on!</p> <p>- creating Fabergé eggs using paper mâché</p> <p><b>Revision</b></p> <p><i>- revisit and rehearse ways in which to</i></p>	<p>join</p> <p>secure</p> <p>safe</p> <p>strength</p> <p>reinforce</p> <p>joint</p> <p>framework</p> <p>structure</p> <p>corner</p> <p>straight</p> <p>curved</p> <p>paper mâché</p> <p>research</p> <p>design</p> <p>purpose</p> <p>effectiveness</p> <p>user</p>	<p>- maybe you could make your own puppet theatre at home and perform your favourite stories together for an audience of your choice!</p> <p>- have a look at some existing products you have at home and think about how they have been put together. Is the structure strong? How has it been strengthened?</p> <p>- research Fabergé eggs and see which is your favourite! Some of them had special surprises inside – how have these been designed and how were they added to the eggs?</p>

	<ul style="list-style-type: none"> <li>- explore and evaluate a range of existing products</li> <li>- evaluate their ideas and products against design criteria</li> <li>- explore and use mechanisms in their products</li> </ul> <p><b>Revision:</b></p> <ul style="list-style-type: none"> <li>- <i>the design process and elements of designing for a purpose</i></li> <li>- <i>apply skills in selecting from and using equipment from a selection</i></li> <li>- <i>revisit ways in which to strengthen a structure</i></li> <li>- <i>revisit different ways to join parts of a structure together securely</i></li> </ul>	<p><i>strengthen a structure and join two pieces together securely and safely</i></p>	<p>evaluate</p>	
<p><b>Summer 2</b></p> <p><b>Lost at Sea</b></p>	<ul style="list-style-type: none"> <li>- design purposeful, functional, appealing products for themselves and others based on design criteria</li> <li>- generate, develop, model and communicate ideas</li> </ul>	<ul style="list-style-type: none"> <li>- rehearsing threading a needle</li> <li>- running stitch on binka (holes already made to make it easier!)</li> <li>- simple running stitch on felt</li> </ul>	<p>sew stitch needle thread cotton eye tie knot running stitch</p>	<ul style="list-style-type: none"> <li>- have a look at some clothes at home (or other items that have been stitched together) to see where the stitches are and how they hold parts of the object together securely</li> <li>- encourage your child to practise threading a needle carefully (you may have some needles with larger eyes to start on!) and tying a knot at the end of the</li> </ul>

<ul style="list-style-type: none"> <li>- apply skills to select from and use a range of tools and equipment to perform a practical task</li> <li>- select from and use a wide range of materials and components</li> <li>- explore and evaluate a range of existing products</li> <li>- evaluate their ideas and products against design criteria</li> <li>- explore and use mechanisms in their products</li> <li>- threading a needle and tying off at the end of the stitch</li> <li>- safely using a needle to produce a simple running stitch</li> </ul> <p><b>Revision:</b></p> <ul style="list-style-type: none"> <li>- <i>the design process and elements of designing for a purpose</i></li> <li>- <i>apply skills in selecting from and using equipment from a selection</i></li> </ul>	<ul style="list-style-type: none"> <li>- designing and making a two-sided hand puppet with one character on each side</li> <li>- embellishing by adding extra details such as eyes, using offcuts and sewing smaller pieces onto the puppet</li> </ul> <p><b>Revision</b></p> <ul style="list-style-type: none"> <li>- <i>learning about joining items together securely</i></li> <li>- <i>elements of the design process to create a product to fill a brief more independently and applying all skills developed during the Key Stage</i></li> </ul>	<ul style="list-style-type: none"> <li>cross stitch</li> <li>blanket stitch</li> <li>textiles</li> <li>material</li> <li>template</li> <li>join</li> <li>embellish</li> <li>offcut</li> <li>felt</li> <li>binka</li> <li>tie off</li> </ul> <ul style="list-style-type: none"> <li>research</li> <li>design</li> <li>purpose</li> <li>effectiveness</li> <li>user</li> <li>evaluate</li> </ul>	<p>thread independently. If your child finds this challenging initially, you could start with some threading activities to further develop their fine motor skills in preparation for more complex activities such as sewing!</p> <ul style="list-style-type: none"> <li>- rehearse running stitch at home</li> <li>- can you have a go at any other stitches? Cross stitch isn't too tricky!</li> <li>- now might be a good time to show your child to perform simple sewing tasks such as sewing on a button so they can see how it's done!</li> </ul>
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