

Design Technology Intent Document 2020-21



WYBORNE
PRIMARY SCHOOL



Design Technology at Wyborne Primary School

Design Technology at Wyborne is exciting and practical. It aims for children to experience designing, making and evaluating including technical knowledge that may be required. It is taught in a number of contexts including real life ones that will be applicable in a technology-based future. Design Technology at Wyborne allows children to gain and use skills needed for the modern world. It will promote questioning, curiosity and create the product designers and the problem solvers of tomorrow.

Knowledge relating to Design Technology will come from working with a variety of materials and mediums and whole product processes from inception to evaluation. They will evaluate the effectiveness of existing products and understand ways in which these can be improved; they will have the opportunity to create their own products and then decide whether they are fit for purpose.

At Wyborne, we consider cooking and nutrition as an essential part of providing children with the skills and knowledge for future life. Throughout their practical experiences and learning pupils will be given the opportunity to prepare, cook, taste and judge their own food; they will be able to prepare their own nutritious meals understanding the importance of a healthy balanced diet and the impact that this can have on life.

Design Technology taught in a variety of way either succinctly or in a cross-curricular manner to support and enhance another topic. If it is taught in a cross-curricular manner, often the processes are made more relevant however, we ensure that the design technology skills and understanding are taught rigorously. Homework projects support class learning further and help to develop children's individual creativity and confidence.

How we will assess Design Technology at Wyborne?

At Wyborne, teachers assess the learning of Design Technology through in class scrutiny of the whole design process. This includes live feedback to the children throughout the process as well as marking and post activity feedback. We are using exercise books for written and drawn tasks allowing teachers to assess understanding of the processes and we formally use these observations to record progress on Target Tracker. We are also using floor books that contain photos, comments and examples of work showing the children's prior and later knowledge gained from completing the activities. Different tasks offer different forms of assessment. Consequently, teachers plan for assessment opportunities as part of the lesson planning stage.



Healthy Eating

Local History
and Where we Live

Nutrition

Themes throughout Design Technology at
Wyborne

Research

Design

Make

Evaluate

EYFS Design Technology Overview: Key Skills & Knowledge and Practical Experience – Design – Make – Evaluate –Technical knowledge: Cooking & Nutrition

EYFS	Early Learning Goals from new framework	Subject Rationale: How does this work support children’s wider long-term Design Technology journey. What does it build upon and what does it prepare them for in the future (proximal role of the content)	Key Vocabulary	NC Key Skills: within the relevant EYFS aspects of learning Design – Make – Evaluate –Technical knowledge: Cooking & Nutrition
Expressive Arts and Design	<p>Creating with Materials Children at the expected level of development will:</p> <ul style="list-style-type: none"> - Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function; - Share their creations, explaining the process they have used. 	<p>Offer opportunities to explore scale. Suggestions: • long strips of wallpaper • child size boxes • different surfaces to work on e.g., paving, floor, tabletop or easel Listen and understand what children want to create before offering suggestions Suggestions: glue and masking tape for sticking pieces of scrap materials onto old cardboard boxes, hammers and nails, glue guns, paperclips and fasteners. Provide children with a range of materials for children to construct with. Encourage them to think about and discuss what they want to make. Discuss problems and how they might be solved as they arise. Reflect with children on how they have achieved their aims. Teach children different techniques for joining materials, such as how to use adhesive tape and different sorts of glue. Provide a range of materials and tools and teach children to use them with care and precision. Promote independence, taking care not to introduce too many new things at once.</p>	<p>Tool Pull Push Forwards Backwards Up Down Straight Curvy</p>	<p>Explore different materials freely, to develop their ideas about how to use them and what to make.</p> <p>Develop their own ideas and then decide which materials to use to express them.</p> <p>Join different materials and explore different textures.</p> <p>Return to and build on their previous learning, refining ideas and developing their ability to represent them.</p> <p>Create collaboratively, sharing ideas, resources and skills.</p>

<p>Personal, Social and Emotional Development</p>	<p><u>Managing Self</u> Children at the expected level of development will:</p> <p>Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices</p>	<p>Talk to children about the importance of eating healthily and brushing their teeth.</p> <p>Display a colourful daily menu showing healthy meals and snacks and discuss choices with the children, reminding them, e.g. that they tried something previously and might like to try it again or encouraging them to try something new.</p> <p>Be aware of eating habits at home and of the different ways people eat their food, e.g. that eating with clean fingers is as skilled and equally valued as using cutlery.</p> <ul style="list-style-type: none"> • Children will be learning to cook a range of foods • Children will be learning to prepare a range of foods • Children will be learning about cultural dishes and religious dishes. • Children will be learning what foods are healthy and unhealthy. 	<p>Hungry Food Taste Sweet Salty Mouth Tongue Smell Diet Healthy Breakfast Lunch Dinner Snack Fruit Vitamins Minerals Balanced unbalanced</p>	<p>Make healthy choices about food, drink, activity and toothbrushing</p> <p>Use picture books and other resources to explain the importance of the different aspects of a healthy lifestyle.</p>
<p>Physical Development</p>	<p><u>Fine Motor Skills</u> Children at the expected level of development will:</p> <p>Use a range of small tools, including scissors, paint brushes and cutlery;</p>	<p>Explain why safety is an important factor in handling tools and moving equipment and materials. Have clear and sensible rules for everybody to follow.</p> <p>You can begin by showing children how to use onehanded tools (scissors and hammers, for example) and then guide them with hand-over-hand help. Gradually reduce the help you are giving and allow the child to use the tool independently.</p> <p>Offer children activities to develop and further refine their small motor skills. Suggestions: threading and sewing, woodwork, pouring, stirring, dancing with scarves, using spray</p>	<p>Scissors Hammers Screwdrivers Safety One-handed Two-handed Junk modelling</p>	<p>Use one-handed tools and equipment, for example, making snips in paper with scissors.</p> <p>Choose the right resources to carry out their own plan. For example, choosing a spade to enlarge a small hole they dug with a trowel.</p> <p>Develop their small motor skills so that they can use a range of tools competently, safely and confidently. Suggested tools: pencils for drawing and writing,</p>


		<p>bottles, dressing and undressing dolls, planting and caring for plants, playing with small world toys, and making models with junk materials, construction kits and malleable materials like clay.</p> <p>Regularly review the equipment for children to develop their small motor skills. Is it appropriate for the different levels of skill and confidence of children in the class? Is it challenging for the most dexterous children?</p>		<p>paintbrushes, scissors, knives, forks and spoons.</p>
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Year 1 Design Technology Overview: Key Skills & Knowledge and Practical Experience – Design – Make – Evaluate –Technical knowledge: Cooking & Nutrition

Year 1	Cross-Curricular Links	Subject Rationale: How does this work support children’s wider long term Design Technology journey. What does it build upon and what does it prepare them for in the future (proximal role of the content)	Key Vocabulary	NC Key Skills: Design – Make – Evaluate –Technical knowledge: Cooking & Nutrition
<p>Design Technology Focus – Knowledge and Design Focus</p> <p>Famous London Landmarks -RDME -Structures - Use pictures and words to describe what he/she wants to do - Build structures, exploring how they can be made stronger, stiffer and more stable</p>	Geography (Local)	<p><i>This will involve the children being able to RDME famous London landmarks. This will develop their understanding of our capital city and their location within it. Children will be given the opportunity to visualise and describe landmarks/buildings and see the way these structures are designed/built.</i></p> <p><i>Children could also explore different landmarks in various countries such as the Taj Mahal in India, Angkor Wat in Cambodia, Burj Khalifa in UAE and The Great Wall of China in China.</i></p>	Local City Area Buildings Design Landmarks Structure Compare contrast	<p>Cooking and Nutrition</p> <p>Talk about what he/she eats at home and begin to discuss what healthy foods are.</p> <p>Say where some food comes from and give examples of food that is grown</p>
<p>Bird Houses -RDME - Create simple designs for a product - Use a range of simple tools to cut, join and combine materials and components safely</p>	Science Forest School (Autumn Term)	<p><i>This topic will give the children the opportunity to RDME a simple birdhouse and may be one of their first introductions to using a variety of tools and consider health and safety under the correct supervision.</i></p> <p><i>It will build upon their knowledge and skills to join materials and give a real purpose to their products.</i></p> <p><i>This unit will link to their Forest School use and the children will be able to see their products in use.</i></p>	Wildlife Birds Shelters Environment Designs Products Tools	<p>Use simple tools with help to prepare food safely</p> <p>Processes</p> <p>Create simple designs for a product</p> <p>Use pictures and words to describe what he/she wants to do</p>
<p>Ice Lolly making Using Juices and Fruit -RDME -Food Technology - Talk about what he/she eats at home and begin to discuss what healthy foods are. - Say where some food comes from and give examples of food that is grown</p>	Science English (instructional writing)	<p><i>This topic will give the children the opportunity to RDME ice lollies using juice and fruit. They will begin to understand where food comes from, what is healthy food and examples of both.</i></p> <p><i>Discuss and explore different fruit from tropical countries: Dragon Fruit Passion Fruit Rambutan Acai</i></p>	Food Healthy Fruit Vegetables Meat Fish Diet Meals Ice lollies Food production Growing	<p>Select from and use a range of tools and equipment to perform practical tasks e.g. cutting, shaping, joining and finishing</p> <p>Use a range of simple tools to cut, join and combine materials and components safely</p> <p>Ask simple questions about existing products and those and those that he/she has made</p> <p>Build structures, exploring how they can be made stronger, stiffer and more stable</p> <p>Use wheels and axles in a product</p>

<p>- Use simple tools with help to prepare food safely</p>		<p><i>Jackfruit</i> <i>Mangosteen</i> <i>Lychee</i> <i>Papaya</i> <i>Guava</i> <i>Further information about these can be found here:</i> https://www.webstaurantstore.com/blog/3624/tropical-fruits-list.html</p>		
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Year 2 Design Technology Overview: Key Skills & Knowledge and Practical Experience – Design – Make – Evaluate –Technical knowledge: Cooking & Nutrition

Year 2	Cross-Curricular Links	Subject Rationale: How does this work support children’s wider long term Design Technology journey. What does it build upon and what does it prepare them for in the future (proximal role of the content)	Key Vocabulary	NC Key Skills: Design – Make – Evaluate –Technical knowledge: Cooking & Nutrition
<p><u>Habitats with a Moving Part</u> -RDME -Structures -Choose appropriate tools and equipment. -Communicate ideas through talking, drawing and templates. -Explore and use mechanisms.</p>	<p>Science (Animals including Humans)</p>	<p><i>This could involve RDME of shoebox habitats. This supports the Animals including Humans topic covered in this year group and must include a moving aspect e.g levers, sliders, wheels or axles.</i></p> <p><i>This will build on the children’s year 1 experience of using basic levers and mechanisms. This will prepare the children for further mechanism work in year 3 as well as further work using a variety of tools and equipment.</i></p> <p><i>Explore and investigate structures around the world. These include:</i> <i>Caja Oscura, Asunción</i></p>  <p><i>Sharifi Ha House, Tehran</i></p>	<p>Habitat Equipment Animals Humans Natural Boxes</p>	<p>Cooking and Nutrition</p> <p>Understand the need for a variety of food in a diet Understand that food has to be grown, farmed, or caught.</p>



More can be explored here:
<https://www.re-thinkingthefuture.com/designing-for-typologies/a4056-15-examples-of-dynamic-architecture-with-moving-elements-2/>

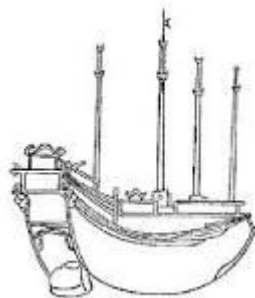
Boats including a Sail
 -RDME
 -Textiles
 -Design purposeful, functional and appealing products.
 -Choose appropriate tools, equipment and techniques.
 -Evaluate and assess existing products.

English
 Geography
 (Coasts)

Children to be given the opportunity to RDME boats related to the Geography topic of coasts.

This will allow the children to build upon their knowledge of designing to fit a purpose and including moving parts or mechanisms. This will help shape their understanding of using existing items to form new ideas.

Compare to Chinese junk:



A junk is a type of Chinese sailing ship with fully battened sails. There are two types of junk in China: the northern junk, which developed from Chinese river boats, and southern junk, which developed from Austronesian ship designs used in trade with the Eastern Han dynasty since the 2nd century AD.

Boats
 Coasts
 Evaluate
 Fit for purpose
 Land
 Country
 Island
 Transport
 Designs
 Functional
 Visual
 Appealing

Use a wider range of cookery techniques to prepare food safely

Processes

Design purposeful, functional, appealing products for himself/ herself and other users based on design criteria
 Generate, develop, model and communicate his/her ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.

Seaside Picnic
 -RDME

Science
 PSHE

Children will RDME picnics. They will be able to discuss the components of a picnic and then DME a single aspect of it.

Seaside
 Picnic
 Healthy

Choose appropriate tools, equipment, techniques and materials from a wide range
 Safely measure, mark out, cut and shape materials and components using a range of tools

<p>-Food Technology</p> <p>-Understand the need for a variety of food in a diet</p> <p>-Understand that food has to be grown, farmed or caught</p> <p>-Use a wider range of cookery techniques to prepare food safely.</p> <p>-Disassemble existing products to inform meal planning/understanding.</p>		<p><i>This will build on the children's existing knowledge from year 1 where the food technology focus was a simple fruit salad. This allows them to apply and expand their knowledge. This will prepare them for further application of their knowledge of healthy eating in year 3.</i></p> <p><i>Compare and explore picnics from around the world:</i> <i>Hanami and bento boxes in Japan</i> <i>Yerba Mate from Argentina</i> <i>Picnic Day in Australia</i> <i>More can be found here:</i> https://www.smithsonianmag.com/travel/how-do-people-picnic-around-globe-180975823/</p>	<p>Diet</p> <p>Varied</p> <p>Food</p> <p>Salad</p> <p>Sandwiches</p> <p>Plan</p> <p>Evaluate</p>	<p>Evaluate and assess existing products and those that he/she has made using a design criteria.</p> <p>Investigate different techniques for stiffening a variety of materials and explore different methods of enabling structures to remain.</p> <p>Explore and use mechanisms e.g. levers, sliders, wheels and axles, in his/her products</p>
<p><u>Beach Hut Models with Moving Parts</u></p> <p>-RDME</p> <p>-Structures</p> <p>-Explore and use mechanisms e.g levers, axles etc.</p> <p>-Investigate different techniques for stiffening a variety of materials.</p>		<p><i>Children to RDME beach huts with moving parts including axles.</i></p> <p><i>Compare and explore picnics from around the world:</i> <i>Ghana. Big Milly's Backyard, Accra. ...</i> <i>Cambodia. Koh Tonsay. ...</i> <i>Mozambique. Baobab Beach, Vilanculos. ...</i> <i>Denmark. Hasle Hytteby, Bornholm Island. ...</i> <i>Colombia. El Cabo San Juan, Parque Tayrona. ...</i> <i>Fiji. Maqai Beach Eco Resort, Qamea. ...</i> <i>India. Little Palm Grove, North Goa. ..</i></p>	<p>Beach</p> <p>Huts</p> <p>Support</p> <p>Axles</p> <p>Moving</p> <p>Parts</p> <p>Explore</p> <p>Lever</p>	

Year 3 Design Technology Overview: Key Skills & Knowledge and Practical Experience – Design – Make – Evaluate –Technical knowledge: Cooking & Nutrition

Year 3	Cross-Curricular Links	Subject Rationale: How does this work support children’s wider long term Design Technology journey. What does it build upon and what does it prepare them for in the future (proximal role of the content)	Key Vocabulary	NC Key Skills: Design – Make – Evaluate –Technical knowledge: Cooking & Nutrition
<p>Product Packaging Design – Chocolates and a Suitable box</p> <p>-RDME</p> <p>-Food Technology</p> <p>- Use knowledge of existing products to design his/her own functional product.</p> <p>- Safely measure, mark out, cut, assemble and join with some accuracy.</p> <p>- Talk about the different food groups and name food from each group.</p> <p>- Use a wider variety of ingredients and techniques to prepare and combine ingredients safely.</p>	<p>Science</p> <p>English</p>	<p><i>This topic will give the children the opportunity to RDME their own chocolates and packaging. This will involve focusing on existing products including disassembly to understand how the packages and products are made. The children will gain a deeper understanding of how the food we eat is produced and where it comes from.</i></p> <p><i>This will build on the children’s existing knowledge from previous years about products, their functionality and their purpose.</i></p> <p>Research different countries that produce chocolate:</p> <p>Main producers:</p> <p>Cacao trees grow in West Africa, Central and South America, and in Southeast Asia.</p> <p>Main producers are: Ivory Coast, Ghana, Indonesia, Nigeria, Cameroon, Brazil, Ecuador and Malaysia.</p>	<p>Food</p> <p>Packaging</p> <p>Production</p> <p>Function</p> <p>Boxes</p> <p>Chocolates</p> <p>Products</p> <p>Tools</p> <p>Ingredients</p> <p>Food groups</p>	<p>Cooking and Nutrition</p> <p>Talk about the different food groups and name food from each group.</p> <p>Understand that food has to be grown, farmed or caught in Europe and the wider world.</p>

<p>Junk Modelling Including Levers & Pneumatic Systems – Tin Forest</p> <p>-RDME -Structures</p> <p>- Create designs using annotated sketches, cross-sectional diagrams and simple computer programmes.</p> <p>- Understand how mechanical systems such as levers and linkages or pneumatic systems create movement.</p> <p>- Strengthen frames using diagonal struts</p>	<p>English (Core Text) Science Computing</p>	<p><i>This topic will give the children a chance to RDME their own models relating to the core text (The Tin Forest) and begin to include pneumatic systems as well as deepen their understanding of levers. The children will also continue to develop their technical language including mechanical, pneumatic, frames and struts. The class teacher may wish to create a ‘Tin Forest’ using the different models that the class produce during this topic.</i></p> <p><i>This work will build on the children’s existing knowledge of levers, mechanisms and communicating ideas with the possible inclusion of IT tools e.g CAD (Computer Aided Design) based apps.</i></p> <p><i>Research the impact of black engineers especially Walter Braithwaite</i></p> <p><i>Let’s start with one of the early pioneers of a small feat of engineering that’s arguably the most important invention of the 20th century. You know it as CAD and we have Walt Braithwaite to thank for it.</i></p> <p><i>Others include:</i> <i>Howard P. Grant</i> <i>Ursula Burns</i> <i>George Biddle Kelley</i> <i>Elijah McCoy</i> <i>William Hunter Dammond</i> <i>Aprille Ericsson</i> <i>Alaska Highway Veterans</i> <i>Hugh G. Robinson</i> <i>Wanda M. Austin</i></p>	<p>Designs Sketches Computer Aided Design Mechanical systems Pneumatic systems Levers Frames Struts Tin Forest Junk Modelling</p>	<p>Use a wider variety of ingredients and techniques to prepare and combine ingredients safely.</p> <p style="text-align: center;">Processes</p> <p>Use knowledge of existing products to design his/her own functional product.</p> <p>Create designs using annotated sketches, cross-sectional diagrams and simple computer programmes.</p>
<p>Roman Purse Making</p> <p>-RDME -Textiles</p> <p>- Investigate and analyse existing products and those he/she has made, considering a wide range of factors.</p> <p>- Make suitable choices from a wider range of tools and</p>	<p>History English</p>	<p><i>This topic, closely linked with History, will give the children the opportunity to RDME their own purses based on Roman designs. This will look at existing products and their designs as well as material choices.</i></p> <p><i>The children will build on their knowledge of textiles and designing products to be fit for their purpose.</i></p>		<p>Safely measure, mark out, cut, assemble and join with some accuracy.</p> <p>Make suitable choices from a wider range of tools and unfamiliar materials and plan out the main stages of using them.</p> <p>Investigate and analyse existing products and those he/she has made, considering a wide range of factors.</p> <p>Strengthen frames using diagonal struts</p> <p>Understand how mechanical systems such as levers and linkages or pneumatic systems create movement.</p>

<p>unfamiliar materials and plan out the main stages of using them.</p>		<p><i>Research Althea McNish, black textile designer from the 1950s:</i></p> <p>https://rubymoon.org.uk/blog/2020/05/30/althea-mcnish-textile-revolutionary/</p>		
<p><u>Bread Making – Roman Spelt Slipper Bread</u></p> <p>-RDME</p> <p>-Food Technology</p> <p>- Talk about the different food groups and name food from each group.</p> <p>- Understand that food must be grown, farmed or caught in Europe and the wider world.</p> <p>- Use a wider variety of ingredients and techniques to prepare and combine ingredients safely.</p>	<p>Science History</p>	<p><i>This topic, again lending itself to History links, gives the children the opportunity to RDME bread based on Roman recipes. Alongside understanding the recipes, ingredients and techniques, the children will also increase their knowledge around where our food comes from and how some of it is produced.</i></p> <p><i>This will build on the children’s existing knowledge of our food and where it comes from, diet and how food has changed over time (or stayed the same). The children will also continue to develop their cooking skills and knowledge.</i></p> <p><i>Compare and contrast with breads from around the world:</i></p> <p><i>Pão de Queijo (Brazil) These adorable little cheese buns can be found all over Brazil and in several other South American countries. ...</i></p> <p><i>Pain de Ménage (Quebec) ...</i></p> <p><i>Naan (India) ...</i></p> <p><i>Pretzel (Germany) ...</i></p> <p><i>Basque Pumpkin Bread (Basque country) ...</i></p> <p><i>Challah (Jewish) ...</i></p> <p><i>Pan de Muertos (Mexico) ...</i></p> <p><i>Frybread (USA)</i></p> <p><i>Also find more here:</i></p> <p>https://www.bhf.org.uk/information-support/heart-matters-magazine/nutrition/cooking-skills/dough/a-to-z-of-breads</p>	<p>Bread Recipes Romans Grown Farmed Caught Ingredients Techniques Preparing Safely</p>	

Year 4 Design Technology Overview: Key Skills & Knowledge and Practical Experience – Design – Make – Evaluate –Technical knowledge: Cooking & Nutrition

Year 4	Cross-Curricular Links	Subject Rationale: How does this work support children’s wider long term Design Technology journey. What does it build upon and what does it prepare them for in the future (proximal role of the content)	Key Vocabulary	NC Key Skills: Design – Make – Evaluate –Technical knowledge: Cooking & Nutrition
<p><u>Viking models including moving parts – Longboats/Longhouses</u> -RDME -Structures -Use knowledge of existing products and designs -Use exploded diagrams -Use techniques to strengthen structures</p>	<p>History English Art</p>	<p><i>This could include RDME of long boats, longhouse etc.</i></p> <p><i>This will build on their knowledge of different types of vehicles, transport and moving parts. This will prepare the children for work they will carry out in both year 5 and 6. (World War 2 and Building Bridges)</i></p> <p><i>Compare and contrast with junks from Hong Kong</i> https://edition.cnn.com/travel/article/dukling-hong-kong-junk-boat/index.html</p>	<p>Boat Viking Model Longship Build Sketch Plan Oars settlers</p>	<p style="text-align: center;">Cooking and Nutrition</p> <p>Understand what makes a healthy and balanced diet, and that different foods and drinks provide different substances the body needs to be healthy and advice.</p> <p>Understand seasonality and the advantages of eating seasonal and locally produced food.</p>
<p><u>Torches</u> -RDME -Electrical Systems - Use knowledge of existing products and their purposes -Understand and use electrical systems.</p>	<p>Science (Electricity/ Power) English (Instruction writing)</p>	<p><i>RDME of electrical systems and creation of circuits fit for purpose e.g switches...</i></p> <p><i>This will build on the children’s existing knowledge across Science (electricity) and Design Technology. This will help to prepare the children to apply their knowledge of electrical systems to other areas e.g electrical aspects of fun fair rides (year 6).</i></p>	<p>Batteries Buzzers Switches Electrical Materials Systems Safety Instructions Products purpose</p>	<p>Read and follow recipes which involve several processes, skills and techniques</p> <p style="text-align: center;">Processes</p> <p>Use knowledge of existing products to design a functional and appealing product for a particular purpose and audience.</p> <p>Create designs using exploded diagrams</p>
<p><u>Vegetarian/Vegan Food</u> -RDME</p>			<p>Animals Vegan</p>	<p>Use techniques which require more accuracy to cut, shape, join and finish his/her work e.g. Cutting internal shapes, slots in frameworks.</p>

<p>-Food Technology -Understand what makes a healthy and balanced diet. -Understand the impact that food production has on the environment and nature -Understand seasonality -Read and follow recipes.</p>	<p>English (Text- The Last Wild) Science PSHE (Environmental issues and impacts)</p>	<p><i>RDME of vegetarian/vegan food. The Last Wild is about human impact on the planet, nature and animals. This would be an opportunity to build on the children's understanding of where food comes from and the impact this has on the planet. This will also extend their knowledge of healthy eating and living.</i></p> <p><i>Vegan recipes from around the world:</i> Hummus – Middle East Imam Biyaldi – Turkey Kakro – Ghana Vinegret – Russia Ulundu Vadai – Sri Lanka/southern India Aloo Masaala – India Ajvar – Balkans <i>Find these and more on:</i> https://www.196flavors.com/vegan-recipes-from-around-the-world/</p>	<p>Vegetarian Impact Recipe Meat free Vegetables Fruit Seasonal food Balanced diet Wild Environment Food choices Recipes</p>	<p>Use his/her knowledge of techniques and the functional and aesthetic qualities of a wide range of materials to plan how to use them.</p> <p>Consider how existing products and his/her own finished products might be improved and how well they meet the needs of the intended user.</p> <p>Apply techniques he/she has learnt to strengthen structures and explore his/her own ideas.</p> <p>Understand and use electrical systems in products.</p>
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Year 5 Design Technology Overview: Key Skills & Knowledge and Practical Experience – Design – Make – Evaluate –Technical knowledge: Cooking & Nutrition

<p>Year 5 Design Technology Focus – Knowledge and Design Focus</p>	<p>Cross-Curricular Links</p>	<p>Subject Rationale: How does this work support children's wider long term Design Technology journey. What does it build upon and what does it prepare them for in the future (proximal role of the content)</p>	<p>Key Vocabulary</p>	<p>NC Key Skills: Design – Make – Evaluate –Technical knowledge: Cooking & Nutrition</p>
<p><u>World War 2 – Spitfire Model</u> -RDME -Create prototypes -Build complex 3D structures -Make careful and precise measurements.</p>	<p>History</p>	<p><i>Children given the opportunity to RDME Spitfire models as well as looking at other types of military air craft relative to the WW2 topic.</i></p> <p><i>This builds on the children existing knowledge of vehicles and transport as well as linking closely to the History topic of WW2. This will prepare them for further extended work on 3D structures in year 6.</i></p> <p><i>Research black aviators and aeronauts:</i> Bessie Coleman. ... Eugene Jacques Bullard. ... James Banning and Thomas C. ...</p>	<p>Spitfire Planes World war Flight Prototypes</p>	<p>Cooking and Nutrition</p> <p>Understand the main food groups and the different nutrients that are important for health.</p> <p>Understand how a variety of ingredients are grown, reared, caught and processed to make them safe and palatable/ tasty to eat.</p>

		<p>Cornelius Coffey. ... Willa Brown.</p> <p>https://www.biography.com/news/bessie-coleman-black-pilots</p>		
<p>Wild Food -RDME -Food Technology -Understand the main food groups -Understand how a variety of ingredients is grown and processed. -Select appropriate ingredients. -Disassembly of existing products.</p>	<p>English (Text – Running wild or The Explorer) Science Geography (Rainforests and rivers)</p>	<p><i>Children given the opportunity to RDME natural, unprocessed foods to better understand how foods are processed into the products we see/buy/use.</i></p> <p><i>This will build on the children’s existing knowledge of food groups, where food comes from and processed foods. This is progression from year 4 where the children looked at vegetarian menu options.</i></p> <p>Wild food options from around the world: Christmas Venison jerky recipe South American</p> <ul style="list-style-type: none"> • Corn/Maize (Zea⁺) • Quinoa (Chenopodium) • Several (though not all) species of amaranth (Amaranthus) • Some species of wild rice (Zizania) • Indian Corn (Flint Corn) <p>https://www.verywellfit.com/what-is-wild-food-4797692</p>	<p>Wild Food Berries Bugs Survival Fruit Vegetables Jungle Natural Groups Healthy</p>	<p>Select appropriate ingredients and use a wide range of techniques to combine them.</p> <p style="text-align: center;">Processes</p> <p>Use his/ her research into existing products and his/ her market research to inform the design of his/ her own innovative product.</p> <p>Create prototypes to show his/her ideas</p>
<p>Tales of Odysseus - Masks -RDME -Create prototypes to inform design decisions -Make and use precise measurements -Build 3D structures/models.</p>	<p>History (Ancient Greece) English (Text) Art</p>	<p><i>This topic will give the children the opportunity to RDME masks based on the core text (Tales of Odysseus). The children will look at existing Greek mask designs as well as those from other cultures.</i></p> <p><i>This will build upon their existing knowledge of working with various materials. This will also build on their knowledge of using a variety of different tools and techniques.</i></p>	<p>Masks Clay Plaster Paint Materials Design Greece Ancient</p>	<p>Make careful and precise measurements so that joins, holes and openings are in exactly the right place</p> <p>Produce step by step plans to guide his/her making, demonstrating that he/she can apply his/her knowledge of different materials, tools and techniques.</p> <p>Make detailed evaluations about existing products and his/ her own considering the views of others to improve his/ her work.</p> <p>Build more complex 3D structures and apply his/ her knowledge of strengthening techniques to make them stronger or more stable.</p> <p>Understand how to use more complex mechanical and electrical systems.</p>

		<p>Compare and contrast with contemporary mask from around the world:</p> <ol style="list-style-type: none"> 1. Venetian Carnival <i>Masks</i> · 2. Mexican Day of the Dead <i>Masks</i> · 3. Chinese New Year <i>Masks</i> · 4. Brazilian Carnival <i>Masks</i> · 5. Filipino Dinagyang 6. African Festima <i>Masks</i> 7. Austrian Krampusnacht Festival <i>Masks</i> 8. Venezuelan Dancing Devils of Yare <i>Masks</i> 9. Japanese Shimokita Tengu Matsuri Mask 10. Bahamian Junkanoo <i>Masks</i> <p>https://www.westernunion.com/blog/en/cultural-masks-of-the-world/</p>		
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Year 6 Design Technology Overview: Key Skills & Knowledge and Practical Experience – Design – Make – Evaluate –Technical knowledge: Cooking & Nutrition

Year 6	Cross-Curricular Links	Subject Rationale: How does this work support children’s wider long term Design Technology journey. What does it build upon and what does it prepare them for in the future (proximal role of the content)	Key Vocabulary	NC Key Skills: Design – Make – Evaluate –Technical knowledge: Cooking & Nutrition
<p>Design Technology Focus – Knowledge and Design Focus</p> <p>Healthy Menu Planning and Making -RDME -Food Technology -Plan a series of healthy meals. -Knowledge of a varied diet. -Use labels to inform choices. -Research, plan and prepare savoury dishes.</p>	<p>English (Instruction writing) Science (Healthy Eating) Maths (Measurements/Ratio)</p>	<p><i>This topic, closely linked to science, will give the children the opportunity to RDME a selection of healthy meals.</i></p> <p><i>This will build on the children’s experiences across the rest of their primary life. This will draw together their existing knowledge across previous year groups. Also part of a real life context prepping children for the future.</i></p> <p><i>Mexican Chicken Tacos · Mexican Grilled Sweetcorn, Avocado & Ham Salad · Mexican Chicken Empanadas · Pie Maker Okonomiyaki Soba Noodle Salad with Yuzu dressing Mediterranean Bean salad Hawaiian Luau Rice</i> More on here: https://www.hwcmagazine.com/</p>	<p>Cook Food Diet Healthy Ingredients Varied Instructions Labels Choices Research Plan Savoury Sweet Prepare</p>	<p style="background-color: orange; text-align: center;">Cooking and Nutrition</p> <p>Confidently plan a series of healthy meals based on the principles of a healthy and varied diet. Use information on food labels to inform choices.</p>

<p>Bridge Building</p> <ul style="list-style-type: none"> -RDME -Structures -Research famous designers and inventors. -Generate, develop, model and communicate ideas. -Use knowledge of famous designers to inform personal designs and ideas. 	<p>History (Victorians/ Brunel/Legacy) Art (Sketching)</p>	<p><i>This topic will give the opportunity for the children to RDME their own bridge structures. This will include looking at existing famous bridges and the way they are constructed.</i></p> <p><i>This will build on the children's prior knowledge from previous years based around buildings, structures and designs fit for purpose. This will prepare them for further exploration of equipment and materials in year 7 and beyond.</i></p> <p><i>Horace King is considered the most respected bridge builder of the 19th century Deep South, constructing dozens of bridges in Alabama, Georgia, and Mississippi. In 1807, King was born into slavery on a South Carolina plantation</i></p>	<p>Bridge Brunel Legacy Transport Victorian Era Railway London Bristol Construction</p>	<p>Research, plan and prepare and cook a savoury dish, applying his/ her knowledge of ingredients and his/ her technical skills.</p> <p style="text-align: center;">Processes</p> <p>Use research he/ she has done into famous designers and inventors to inform the design of his/ her own innovative products.</p> <p>Generate, develop. Model and communicate his/ her ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.</p>
<p>Fun Fair Rides</p> <ul style="list-style-type: none"> -RDME -Structures -Communicate ideas through discussion, sketches and prototypes. -Use technical knowledge and skills to problem solve during the making process. -Consider famous designs and innovative ideas. 	<p>English Maths Art</p>	<p><i>This topic will give the children the opportunity to RDME a variety of fun fair rides. This will include in-depth consideration of existing rides and ideas. The class teacher may wish to think about using cross curricular links with maths so the children are able to design a whole theme park once the models are completing. This would consider area, perimeter, layout and land use etc.</i></p> <p><i>This will utilise the skills that the children have acquired throughout their school life as well as building upon the skills learnt in year 6. This will prepare them for further exploration of equipment and materials in year 7 and beyond.</i></p>	<p>Theme park Fun fair Rides Materials Inventors Innovation Fit for purpose Design Structures Problem solving Sketches Moving Parts Area Perimeter Layout Land use</p>	<p>Apply his/her knowledge of materials and techniques to refine and rework his/her product to improve its functional properties and aesthetic qualities.</p> <p>Use technical knowledge accurate skills to problem solve during the making process.</p> <p>Use his/ her knowledge of famous designs to further explain the effectiveness of existing products and products he/ she have made</p> <p>Use a wide range of methods to strengthen, stiffen and reinforce complex structures and can use them accurately and appropriately.</p> <p>Apply his/ her understanding of computing to program, monitor and control his/ her product.</p>

Band 1 (10 statements)	Band 2 (10 statements)	Band 3 (10 statements)	Band 4 (10 statements)	Band 5 (10 statements)	Band 6 (10 statements)
<p>Cooking and Nutrition</p> <p>Talk about what he/she eats at home and begin to discuss what healthy foods are</p>	<p>Cooking and Nutrition</p> <p>Understand the need for a variety of food in a diet</p>	<p>Cooking and Nutrition</p> <p>Talk about the different food groups and name food from each group</p>	<p>Cooking and Nutrition</p> <p>Understand what makes a healthy and balanced diet, and that different foods and drinks provide different substances the body needs to be healthy and active</p>	<p>Cooking and Nutrition</p> <p>Understand the main food groups and the different nutrients that are important for health</p>	<p>Cooking and Nutrition</p> <p>Confidently plan a series of healthy meals based on the principles of a healthy and varied diet</p>
<p>Cooking and Nutrition</p> <p>Say where some food comes from and give examples of food that is grown</p>	<p>Cooking and Nutrition</p> <p>Understand that all food has to be farmed, grown or caught</p>	<p>Cooking and Nutrition</p> <p>Understand that food has to be grown, farmed or caught in Europe and the wider world</p>	<p>Cooking and Nutrition</p> <p>Understand seasonality and the advantages of eating seasonal and locally produced food</p>	<p>Cooking and Nutrition</p> <p>Understand how a variety of ingredients are grown, reared, caught and processed to make them safe and palatable / tasty to eat</p>	<p>Cooking and Nutrition</p> <p>Use information on food labels to inform choices</p>
<p>Cooking and Nutrition</p> <p>Use simple tools with help to prepare food safely</p>	<p>Cooking and Nutrition</p> <p>Use a wider range of cookery techniques to prepare food safely</p>	<p>Cooking and Nutrition</p> <p>Use a wider variety of ingredients and techniques to prepare and combine ingredients safely</p>	<p>Cooking and Nutrition</p> <p>Read and follow recipes which involve several processes, skills and techniques</p>	<p>Cooking and Nutrition</p> <p>Select appropriate ingredients and use a wide range of techniques to combine them</p>	<p>Cooking and Nutrition</p> <p>Research, plan and prepare and cook a savoury dish, applying his/her knowledge of ingredients and his/her technical skills</p>
<p>Processes</p> <p>Create simple designs for a product</p>	<p>Processes</p> <p>Design purposeful, functional, appealing products for himself/herself and other users based on design criteria</p>	<p>Processes</p> <p>Use knowledge of existing products to design his/her own functional product</p>	<p>Processes</p> <p>Use knowledge of existing products to design a functional and appealing product for a particular purpose and audience</p>	<p>Processes</p> <p>Use his/her research into existing products and his/her market research to inform the design of his/her own innovative product</p>	<p>Processes</p> <p>Use research he/she has done into famous designers and inventors to inform the design of his/her own innovative products</p>
<p>Processes</p> <p>Use pictures and words to describe what he/she wants to do</p>	<p>Processes</p> <p>Generate, develop, model and communicate his/her ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</p>	<p>Processes</p> <p>Create designs using annotated sketches, cross-sectional diagrams and simple computer programmes</p>	<p>Processes</p> <p>Create designs using exploded diagrams</p>	<p>Processes</p> <p>Create prototypes to show his/her ideas</p>	<p>Processes</p> <p>Generate, develop, model and communicate his/her ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design</p>
<p>Processes</p> <p>Select from and use a range of tools and equipment to perform practical tasks e.g. cutting, shaping, joining and finishing</p>	<p>Processes</p> <p>Choose appropriate tools, equipment, techniques and materials from a wide range</p>	<p>Processes</p> <p>Safely measure, mark out, cut, assemble and join with some accuracy</p>	<p>Processes</p> <p>Use techniques which require more accuracy to cut, shape, join and finish his/her work e.g. Cutting internal shapes, slots in frameworks</p>	<p>Processes</p> <p>Make careful and precise measurements so that joints, holes and openings are in exactly the right place</p>	<p>Processes</p> <p>Apply his/her knowledge of materials and techniques to refine and rework his/her product to improve its functional properties and aesthetic qualities</p>
<p>Processes</p> <p>Use a range of simple tools to cut, join and combine materials and components safely</p>	<p>Processes</p> <p>Safely measure, mark out, cut and shape materials and components using a range of tools</p>	<p>Processes</p> <p>Make suitable choices from a wider range of tools and unfamiliar materials and plan out the main stages of using them</p>	<p>Processes</p> <p>Use his/her knowledge of techniques and the functional and aesthetic qualities of a wide range of materials to plan how to use them</p>	<p>Processes</p> <p>Produce step by step plans to guide his/her making, demonstrating that he/she can apply his/her knowledge of different materials, tools and techniques</p>	<p>Processes</p> <p>Use technical knowledge accurate skills to problem solve during the making process</p>
<p>Processes</p> <p>Ask simple questions about existing products and those that he/she has made</p>	<p>Processes</p> <p>Evaluate and assess existing products and those that he/she has made using a design criteria</p>	<p>Processes</p> <p>Investigate and analyse existing products and those he/she has made, considering a wide range of factors</p>	<p>Processes</p> <p>Consider how existing products and his/her own finished products might be improved and how well they meet the needs of the intended user</p>	<p>Processes</p> <p>Make detailed evaluations about existing products and his/her own considering the views of others to improve his/her work</p>	<p>Processes</p> <p>Use his/her knowledge of famous designs to further explain the effectiveness of existing products and products he/she have made</p>
<p>Processes</p> <p>Build structures, exploring how they can be made stronger, stiffer and more stable</p>	<p>Processes</p> <p>Investigate different techniques for stiffening a variety of materials and explore different methods of enabling structures to remain stable</p>	<p>Processes</p> <p>Strengthen frames using diagonal struts</p>	<p>Processes</p> <p>Apply techniques he/she has learnt to strengthen structures and explore his/her own ideas</p>	<p>Processes</p> <p>Build more complex 3D structures and apply his/her knowledge of strengthening techniques to make them stronger or more stable</p>	<p>Processes</p> <p>Use a wide range of methods to strengthen, stiffen and reinforce complex structures and can use them accurately and appropriately</p>
<p>Processes</p> <p>Use wheels and axles in a product</p>	<p>Processes</p> <p>Explore and use mechanisms e.g. levers, sliders, wheels and axles, in his/her products</p>	<p>Processes</p> <p>Understand how mechanical systems such as levers and linkages or pneumatic systems create movement</p>	<p>Processes</p> <p>Understand and use electrical systems in products</p>	<p>Processes</p> <p>Understand how to use more complex mechanical and electrical systems</p>	<p>Processes</p> <p>Apply his/her understanding of computing to program, monitor and control his/her product</p>

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Cooking and Nutrition					
Talk about what he/she eats at home and begin to discuss what healthy foods are.	Understand the need for a variety of food in a diet	Talk about the different food groups and name food from each group.	Understand what makes a healthy and balanced diet, and that different foods and drinks provide different substances the body needs to be healthy and advice.	Understand the main food groups and the different nutrients that are important for health.	Confidently plan a series of healthy meals based on the principles of a healthy and varied diet.
Say where some food comes from and give examples of food that is grown	Understand that food has to be grown, farmed, or caught.	Understand that food has to be grown, farmed or caught in Europe and the wider world.	Understand seasonality and the advantages of eating seasonal and locally produced food.	Understand how a variety of ingredients are grown, reared, caught and processed to make them safe and palatable/ tasty to eat.	Use information on food labels to inform choices.
Use simple tools with help to prepare food safely	Use a wider range of cookery techniques to prepare food safely	Use a wider variety of ingredients and techniques to prepare and combine ingredients safely.	Read and follow recipes which involve several processes, skills and techniques	Select appropriate ingredients and use a wide range of techniques to combine them.	Research, plan and prepare and cook a savoury dish, applying his/ her knowledge of ingredients and his/ her technical skills.
Processes					
Create simple designs for a product	Design purposeful, functional, appealing products for himself/ herself and other users based on design criteria	Use knowledge of existing products to design his/her own functional product.	Use knowledge of existing products to design a functional and appealing product for a particular purpose and audience.	Use his/ her research into existing products and his/ her market research to inform the design of his/ her own innovative product.	Use research he/ she has done into famous designers and inventors to inform the design of his/ her own innovative products.
Use pictures and words to describe what he/she wants to do	Generate, develop, model and communicate his/her ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.	Create designs using annotated sketches, cross-sectional diagrams and simple computer programmes.	Create designs using exploded diagrams	Create prototypes to show his/her ideas	Generate, develop. Model and communicate his/ her ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.
Select from and use a range of tools and equipment to perform practical tasks e.g. cutting, shaping, joining and finishing	Choose appropriate tools, equipment, techniques and materials from a wide range	Safely measure, mark out, cut, assemble and join with some accuracy.	Use techniques which require more accuracy to cut, shape, join and finish his/her work e.g. Cutting internal shapes, slots in frameworks.	Make careful and precise measurements so that joints, holes and openings are in exactly the right place	Apply his/her knowledge of materials and techniques to refine and rework his/her product to improve its functional properties and aesthetic qualities.
Use a range of simple tools to cut, join and combine materials and components safely	Safely measure, mark out, cut and shape materials and components using a range of tools	Make suitable choices from a wider range of tools and unfamiliar materials and plan out the main stages of using them.	Use his/her knowledge of techniques and the functional and aesthetic qualities of a wide range of materials to plan how to use them.	Produce step by step plans to guide his/her making, demonstrating that he/she can apply his/her knowledge of different materials, tools and techniques.	Use technical knowledge accurately to problem solve during the making process.
Ask simple questions about existing products and those that he/she has made	Evaluate and assess existing products and those that he/she has made using a design criteria.	Investigate and analyse existing products and those he/she has made, considering a wide range of factors.	Consider how existing products and his/her own finished products might be improved and how well they meet the needs of the intended user.	Make detailed evaluations about existing products and his/ her own considering the views of others to improve his/ her work.	Use his/ her knowledge of famous designs to further explain the effectiveness of existing products and products he/ she have made
Build structures, exploring how they can be made stronger, stiffer and more stable	Investigate different techniques for stiffening a variety of materials and explore different methods of enabling structures to remain.	Strengthen frames using diagonal struts	Apply techniques he/she has learnt to strengthen structures and explore his/her own ideas.	Build more complex 3D structures and apply his/ her knowledge of strengthening techniques to make them stronger or more stable.	Use a wide range of methods to strengthen, stiffen and reinforce complex structures and can use them accurately and appropriately.
Use wheels and axles in a product	Explore and use mechanisms e.g. levers, sliders, wheels and axles, in his/her products	Understand how mechanical systems such as levers and linkages or pneumatic systems create movement.	Understand and use electrical systems in products.	Understand how to use more complex mechanical and electrical systems.	Apply his/ her understanding of computing to program, monitor and control his/ her product.