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| D:\Blyton School Logo.jpgBlyton cum Laughton Church of England Primary School  Reading-Inspired Curriculum    CURRICULUM KNOWLEDGE & SKILLS PROGRESSION: DESIGN and TECHNOLOGY  Subject Responsibility: Mr Duke | | | | | | | | | | | | | | | | | | | |
| Olive EYFS | | | | | | | | | | | | | | | | | | | |
| Design & Develop  (Developing, planning and communicating ideas) | * Select appropriate resources * Use gestures, talking and arrangements of materials and components to show design * Use contexts set by the teacher and myself * Use language of designing and making (join, build, shape, longer, shorter, heavier etc.) | | | | | | | | | | | | | | | | | | |
| Making  (Working with tools, equipment, materials and components to make quality products) | * Construct with a purpose, using a variety of resources * Use simple tools and techniques * Build / construct with a wide range of objects * Select tools & techniques to shape, assemble and join * Replicate structures with materials / components * Discuss how to make an activity safe and hygienic * Record experiences by drawing, writing, voice recording * Understand different media can be combined for a purpose | | | | | | | | | | | | | | | | | | |
| Product & Evaluation  (Evaluating processes and products) | * Adapt work if necessary * Dismantle, examine, talk about existing objects/structures * Consider and manage some risks * Practise some appropriate safety measures independently * Talk about how things work * Look at similarities and differences between existing objects / materials / tools * Show an interest in technological toys * Describe textures | | | | | | | | | | | | | | | | | | |
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| Ivy  Year 1/2  Cycle 1 | **Autumn 1** | | **Autumn 2** | | | **Spring 1** | | | **Spring 2** | | | | | **Summer 1** | | | | **Summer 2** | |
|  | | See the source image**Linked text: Man on the Moon**  **Outcome: Space Vehicle Design – Can you help Bob return home?** | | |  | | | **Linked text:** 29 Best Picture Books about Food images | Books, Childrens books ...**Oliver’s Fruit Salad**    **Outcome: A Fruit Salad including a range of healthy foods and prepared using appropriate techniques** | | | | |  | | | | **Linked text:** [Image result for the dinosaurs of waterhouse hawkins](https://www.google.co.uk/url?sa=i&rct=j&q=&esrc=s&source=images&cd=&cad=rja&uact=8&ved=0ahUKEwjs_4Xn9cjYAhWEaRQKHcCcCrEQjRwIBw&url=https://www.amazon.co.uk/Dinosaurs-Waterhouse-Hawkins-Caldecott-Honor/dp/0439114942&psig=AOvVaw2IF2fxTeQzRRt1RMmLCcu5&ust=1515519882342662)**The Dinosaurs of Waterhouse Hawkins**  **Outcome: A 3D model of a Dinosaur Sculpture Park** | |
| Extraordinary Lives |  | |  | | |  | | |  | | | | |  | | | | **CREATOR: Waterhouse Hawkins** | |
| Design & Develop  (Developing, planning and communicating ideas) | * Begin to draw on their own experience to help generate ideas and research conducted on criteria. * Begin to understand the development of existing products: What they are for, how they work, materials used. * Start to suggest ideas and explain what they are going to do. * Understand how to identify a target group for what they intend to design and make based on a design criteria. * Begin to develop their ideas through talk and drawings. * Make templates and mock ups of their ideas in card and paper or using ICT. | | | | | | | | | | | | | | | | | | |
| Key vocabulary | plan • prepare • design • materials • ideas • use • model | | | | | | | | | | | | | | | | | | |
| Making  (Working with tools, equipment, materials and components to make quality products) | * Begin to make their design using appropriate techniques. * Begin to build structures, exploring how they can be made stronger, stiffer and more stable. * Explore and use mechanisms (for example, levers, sliders , wheels and axles), in their products * With help measure, mark out, cut and shape a range of materials. * Explore using tools e.g. scissors and a hole punch safely. * Begin to assemble, join and combine materials and components together using a variety of temporary methods e.g. glues or masking tape. * Begin to use simple finishing techniques to improve the appearance of their product. | | | | | | | | | | | | | | | | | | |
| Key vocabulary | * fast • slow • faster • slower • up • down • turn •wind-up • design • draw • sketch • tools • fix • glue • attach • brick • wood • stone • cloth • metal • foam • felt • paper • tissue • newspaper • cardboard • string • wool • clay • scissors • glue • tape • cut • stick • decorate | | | | | | | | | | | | | | | | | | |
| Product & Evaluation  (Evaluating processes and products) | * Start to evaluate their product by discussing how well it works in relation to the purpose (design criteria). * When looking at existing products explain what they like and dislike about products and why. * Begin to evaluate their products as they are developed, identifying strengths and possible changes they might make. | | | | | | | | | | | | | | | | | | |
| Key vocabulary | * change • improve • prefer • useful • unsuccessful • future • progress • evaluate | | | | | | | | | | | | | | | | | | |
| Food and Nutrition | * Begin to understand that all food comes from plants or animals. * Explore the understanding that food has to be farmed, grown elsewhere (eg home) or caught. * Start to understand how to name and sort foods into the five groups in ‘The Eat Well Plate’. * Begin to understand that everyone should eat at least five portions of fruit and vegetables every day. * Know how to prepare simple dishes safely and hygienically, without using a heat source. * Know how to use techniques such as cutting, peeling and grating. | | | | | | | | | | | | | | | | | | |
| Key vocabulary | * healthy • unhealthy • source • fruit • vegetables • clean • safe • dirty • unsafe • amount • ingredients • recipe • weight • vegetarian | | | | | | | | | | | | | | | | | | |
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| Ivy  Year 1/2 Cycle 2 | **Autumn 1** | | **Autumn 2** | | | **Spring 1** | | | **Spring 2** | | | | | **Summer 1** | | | | **Summer 2** | |
| See the source image**Linked text: The Great Fire of London: Anniversary edition of The Great Fire of 1666**  **Outcome: A 3D model of a house from the time** | | **Christmas Industry Week:**  **Design, make and evaluate a product to sell at the Christmas Fayre** | | | See the source image**Linked text:**  **Florette**  **Outcome: A Bug Hotel** **made from a range of natural materials** | | |  | | | | |  | | | | See the source image**Linked text:**  **What Mr Darwin Saw**  **Outcome: An animal puppet made from a range of fabrics and joining techniques** | |
| Extraordinary Lives |  | |  | | |  | | |  | | | | |  | | | |  | |
| Design & Develop  (Developing, planning and communicating ideas) | * Start to generate ideas by drawing on their own and other people’s experiences. * Begin to develop their design ideas through discussion, observation, drawing and modelling. * Identify a purpose for what they intend to design and make. * Understand how to identify a target group for what they intend to design and make based on a design criteria. * Develop their ideas through talk and drawings and label parts. Make templates and mock ups of their ideas in card and paper or using IT. | | | | | | | | | | | | | | | | | | |
| Key vocabulary | * plan • prepare • design • materials • ideas • use • model • development • market research • survey • template | | | | | | | | | | | | | | | | | | |
| Making  (Working with tools, equipment, materials and components to make quality products) | * Begin to select tools and materials; use correct vocabulary to name and describe them. * Build structures, exploring how they can be made stronger, stiffer and more stable. * With help measure, cut and score with some accuracy. * Start to assemble, join and combine materials in order to make a product. * Demonstrate how to cut, shape and join fabric to make a simple product. Use basic sewing techniques. * Start to choose and use appropriate finishing techniques. | | | | | | | | | | | | | | | | | | |
| Key vocabulary | * fast • slow • faster • slower • up • down • turn •wind up • design • draw • sketch • tools • fix • glue • attach • features • brick • wood • stone • cloth • metal • foam • felt • paper • tissue • newspaper • cardboard • string • wool • clay • scissors • glue • tape • cut • stick • decorate | | | | | | | | | | | | | | | | | | |
| Product & Evaluation  (Evaluating processes and products) | * Evaluate their work against their design criteria. * Look at a range of existing products and explain what they like and dislike about them and why. * Start to evaluate their products as they are developed, identifying strengths and changes they might make. * With confidence talk about their ideas, saying what they like and dislike about them. | | | | | | | | | | | | | | | | | | |
| Key vocabulary | * change • improve • prefer • useful • unsuccessful • future • progress • modify • alter • adapt • original • finished article • evaluate • graphics | | | | | | | | | | | | | | | | | | |
| Food and Nutrition | * Understand that all food comes from plants or animals. * Know that food has to be farmed, grown elsewhere (e.g home) or caught. * Understand how to name and sort foods into the five groups in ‘The Eat Well Plate.’ * Demonstrate how to prepare simple dishes safely and hygienically, without using a heat source. * Demonstrate how to use techniques such as cutting, peeling and grating. | | | | | | | | | | | | | | | | | | |
| Key vocabulary | * healthy • unhealthy • source • fruit • vegetables • clean • safe • dirty • unsafe • amount • ingredients • recipe • weight • nutrients • vegetarian • dietary requirements | | | | | | | | | | | | | | | | | | |
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| Willow Year 3/4 | **Autumn 1** | | | **Autumn 2** | | | **Spring 1** | | | **Spring 2** | | | | | **Summer 1 & 2** | | | | |
|  | | | **CYCLE 1:**  **Outcome: Pop-up Book Illustration (Podkin)**  **CYCLE 1 & 2 Christmas Industry Week:**  **Design, make and evaluate a product to sell at the Christmas Fayre – wrapping paper designs** | | |  | | | See the source image**CYCLE 2:**  **Linked text:**  **The Defenders**  **Outcome: A magnet game** | | | | | https://images-na.ssl-images-amazon.com/images/I/61gY7EnvnhL._SX480_BO1,204,203,200_.jpgImage result for how to train your dragon book  **CYCLE 1:**  **Linked text:**  **Viking Voyagers/How to Train Your Dragon: Textiles**  **Outcome: A Viking age bag**  **https://images-na.ssl-images-amazon.com/images/I/51UtaE3X7WL._SX396_BO1,204,203,200_.jpg**  **CYCLE 2:**  **Linked text: Anglo-Saxon Britain**  **Outcome: An Anglo-Saxon rune bag** | | | | |
| Extraordinary Lives |  | | |  | | |  | | |  | | | | | **CREATOR**: Jules Verne (CYCLE 2) | | | | |
| Design & Develop  (Developing, planning and communicating ideas) | * **Y3** With growing confidence generate ideas for an item, considering its purpose and the user/s. * **Y4**  Start to generate ideas, considering the purposes for which they are designing – link with mathematics and science * **Y3** Start to order the main stages of making a product. * **Y3** Identify a purpose and establish criteria for a successful product. * **Y3** Understand how well products have been designed, made, what materials have been used and the construction technique. * **Y3 & Y4** Learn about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products. * **Y3** Start to understand whether products can be recycled or reused. * **Y3** Know to make drawings with labels when designing. * **Y4** Confidently makelabelled drawings from different views showing specific features * **Y3 & Y4** When planning, explain their choice of materials and components including function and aesthetics. * **Y4** Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making, if the first attempt fails. * **Y4** When planning, consider the views of others, including intended users, to improve their work | | | | | | | | | | | | | | | | | | |
| Key vocabulary | * plan • organise • prototype • initial ideas • criteria • diagrams • labels • brief • product • consumer • customer • target audience • purpose | | | | | | | | | | | | | | | | | | |
| Making  (Working with tools, equipment, materials and components to make quality products) | * **Y3** Select a wider range of tools and techniques for making their product e.g. construction materials and kits, textiles, food ingredients, mechanical components and electrical components. * **Y3** Start to work safely and accurately using a range of tools * **Y4** Select a wider range of tools and techniques for making their product safely. * **Y4** Know how to measure, mark our, cut and shape a range of materials, using appropriate tools, equipment and techniques. * **Y3** Explain their choice of tools and equipment in relation to the skills and techniques they will be using. * **Y3** Start to understand that mechanical and electrical systems have an input process and output. * **Y3** Know how simple electrical circuits and components can be used to create functional products * **Y3** Start to understand that mechanical systems such as levers and linkages or pneumatic systems create movement. * **Y4** Know how mechanical systems such as cams or gears create movement. * **Y3** Measure, mark out, cut, score and assemble components with more accuracy. * **Y3** Start to measure, tape or pin, cut and join fabric with some accuracy. * **Y4** Demonstrate how to measure, tape or pin, cut and join fabric with some accuracy. * **Y4** Understand how to reinforce and strengthen a 3D framework * **Y3** Start to think about their ideas as they progress and be willing to change things if this helps to improve their work. * **Y4** Begin to use finishing techniques to strengthen and improve the appearance of their product using a range of equipment. | | | | | | | | | | | | | | | | | | |
| Key vocabulary | * materials • mould • liquid • solid • form • shape • adhesive • hand-made • packaging • presentation • machine made • durable | | | | | | | | | | | | | | | | | | |
| Product & Evaluation  (Evaluating processes and products) | * **Y3** Start to evaluate their product against original design criteria eg how well it meets its intended purpose. * **Y4** Evaluate their products carrying out appropriate tests * **Y4** Start to evaluate their work both during and at the end of an assignment * **Y3** Begin to disassemble and evaluate products and consider the views of others to improve them. * **Y4** Be able to disassemble and evaluate familiar products and consider the views of others to improve them * **Y3 & Y4**  Evaluate the key designs of individuals in design and technology has helped shape the world | | | | | | | | | | | | | | | | | | |
| Key vocabulary | * assess • edit • improve • alter • outcome • develop • test • analyse • effective • design criteria • models • quality • function | | | | | | | | | | | | | | | | | | |
| Food and Nutrition | * **Y3** Start to know (**Y4** Understand…) that food is grown, reared and caught in the UK, Europe and the wider world * **Y3 & Y4** Understand how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source * **Y3** Begin to understand how to (**Y4** Know how to…) use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking * **Y3** Start to understand (**Y4** Know…) that a healthy diet is made up from a variety and balance of different food and drink, as depicted in ‘The Eat Well Plate’. * **Y3** Begin to know that to be active and healthy, food and drink are needed to provide energy for the body. | | | | | | | | | | | | | | | | | | |
| Key vocabulary | * healthy • unhealthy • balanced • vitamins • disease • nutrition • healthy eating • hygiene • diet • grams • storage • presentation • taste • texture • flavour • disinfect • bacteria | | | | | | | | | | | | | | | | | | |
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| Fig Year 4/5 | **Autumn 1** | | **Autumn 2** | | | **Spring 1 & 2** | | | | | | | | **Summer 1 & Summer 2** | | | | | |
| See the source image**CYCLE 1:**  **Linked text:**  **The Invention of Hugo Cabret**  **Outcome: A Zoetrope inspired by the films of Georges Melies** | | **CYCLE 1 & 2 Christmas Industry Week**  **Design, make and evaluate a product to sell at the Christmas Fayre: Use a graphics package to create Victorian style gift cards** | | | See the source image**CYCLE 2:**  **Linked text: Guitar Genius**  **Outcome: A musical instrument** | | | | | | | | **CYCLE 1:**  https://cdn.faber.co.uk/media/catalog/product/cache/1/image/325x/040ec09b1e35df139433887a97daa66f/2/6/26719.books.origjpg.jpg**Linked text:**  **Secrets of a Sun King**  **Outcome: A vehicle with pulleys and levers to move pyramid stones** | | | | | |
| Extraordinary Lives | **CREATOR**: Georges Melies | |  | | |  | | | | | | | |  | | | |  | |
| Design & Develop  (Developing, planning and communicating ideas) | * **Y4**  Start to generate ideas, considering the purposes for which they are designing – link with mathematics and science * **Y5** Start to generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces * **Y5** Begin to use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose * **Y4** Learn about inventors, designers, engineers, chefs and manufacturers who have developed ground-breaking products. * **Y4** Confidently makelabelled drawings from different views showing specific features * **Y5** Draw up a specification for their design – link with mathematics and science * **Y4** When planning, explain their choice of materials and components including function and aesthetics. * **Y4** Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making, if the first attempt fails. * **Y5** Start to understand how much products cost to make, how sustainable and innovative they are and the impact products have beyond their intended purpose * **Y5** Use results of investigations, information sources, including ICT when developing design ideas. * **Y4** When planning, consider the views of others, including intended users, to improve their work | | | | | | | | | | | | | | | | | | |
| Key vocabulary | * plan • organise • prototype • initial ideas • criteria • diagrams • labels • annotate • brief • product • consumer • customer • target audience • purpose • application | | | | | | | | | | | | | | | | | | |
| Making  (Working with tools, equipment, materials and components to make quality products) | * **Y4** Select a wider range of tools and techniques for making their product safely. * **Y5** With growing confidence select appropriate materials, tools and techniques. * **Y4** Know how to measure, mark our, cut and shape a range of materials, using appropriate tools, equipment and techniques. * **Y4** Demonstrate how to measure, tape or pin, cut and join fabric with some accuracy. * **Y5** Begin to measure and mark out more accurately * **Y4** Understand how more complex electrical circuits and components can be used to create functional products. * **Y5** Understand that mechanical and electrical systems have an input, process and output * **Y4** Know how mechanical systems such as cams or gears create movement. * **Y4** Understand how to reinforce and strengthen a 3D framework * **Y4** Begin to use finishing techniques to strengthen and improve the appearance of their product using a range of equipment. * **Y5** With growing confidence apply a range of finishing techniques, including those from art and design * **Y5** Demonstrate how to use skills in using different tools and equipment safely and accurately and with growing confidence cut and join with accuracy to ensure a good-quality finish to the product. | | | | | | | | | | | | | | | | | | |
| Key vocabulary | * materials • mould • liquid • solid • form • shape • adhesive • lattice • mass-produce • hand-made • packaging • presentation • machine made • dimensions • durable | | | | | | | | | | | | | | | | | | |
| Product & Evaluation  (Evaluating processes and products) | * **Y4** Evaluate their products by carrying out appropriate tests * **Y5** Start to evaluate a product against the original design specification and by carrying out tests * **Y4** Start to evaluate their work both during and at the end of an assignment * **Y5** Evaluate their work both during and at the end of an assignment * **Y5** Begin to evaluate it personally and seek evaluation from others * **Y4** Be able to disassemble and evaluate familiar products and consider the views of others to improve them * **Y4 &** **Y5** Evaluate the key designs of individuals in design and technology has helped shape the world | | | | | | | | | | | | | | | | | | |
| Key vocabulary | * assess • edit • improve • alter • outcome • develop • test • analyse • effective • fit for purpose • design criteria • alternatives • models • quality • function | | | | | | | | | | | | | | | | | | |
| Food and Nutrition | * **Y4** Understand how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source * **Y5** Begin to understand that seasons may affect the food available * **Y5** Understand how food is processed into ingredients that can be eaten or used in cooking * **Y5** Start to understand how to use a range of techniques such as peeling, chopping, slicing, grating, mixing, spreading, kneading and baking * **Y5** Begin to understand that different food and drink contain different substances – nutrients, water and fibre – that are needed for health | | | | | | | | | | | | | | | | | | |
| Key vocabulary | * healthy • unhealthy • balanced • vitamins • disease • nutrition • healthy eating • hygiene • diet • grams • storage • presentation • taste • texture • flavour • disinfect • bacteria | | | | | | | | | | | | | | | | | | |
| Clover Year 5/6 | **Autumn 1** | | **Autumn 2** | | | **Spring 1** | | | **Spring 2** | | | | | **Summer 1 & 2** | | | | | |
|  | | **CYCLE 1 & 2**  **Christmas Industry Week: Design, make and evaluate a product to sell at the Christmas Fayre** | | |  | | | Hello Lighthouse: Amazon.co.uk: Sophie Blackall: Books**CYCLE 1:**  **Linked text:**  **Hello Lighthouse**  **Outcome: A working lighthouse**  Glow in the Dark: Nature's Light Spectacular - Another Read ...**CYCLE 2:**  **Linked text:**  **Nature’s Light Spectacular**  **Outcome: Pin-hole Camera** | | | | | Image result for The Wolf WilderImage result for the lost book of adventure childrens**CYCLE 1:**  **Linked text: Wolf Wilder/ The Lost Book of Adventure**  **Outcome:**  **Den design – building a den outside and put it to the test with a bucket of cold water**  **Outcome: Moving Toys - design a mechanism using cams and gears to create the movement of a wolf**  **CYCLE 2:**  **Outcome: Moving Toys - design a mechanism using cams, gears. Hydraulics and pneumatics to create an Olympic themed toy**  **Food and Nutrition**  **Outcome: Cooking savoury dishes** | | | | | |
| Extraordinary Lives |  | |  | | |  | | | **INNOVATOR:** Alhazen (CYCLE 2) | | | | |  | | | | | |
| Design & Develop  (Developing, planning and communicating ideas) | * **Y5** Start to generate, (**Y6** Generate,…) develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces * **Y5** Begin to use (**Y6** Use…) research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose * **Y5 & Y6** Draw up a specification for their design – link with mathematics and science * **Y6** Identify the strengths and areas for development in their ideas and products * **Y5** Start to understand (**Y6** Know…) how much products cost to make, how sustainable and innovative they are and the impact products have beyond their intended purpose * **Y5** Use results of investigations, information sources, including ICT when developing design ideas. | | | | | | | | | | | | | | | | | | |
| Key vocabulary | * plan • organise • prototype • initial ideas • criteria • diagrams • labels • annotate • brief • product • consumer • customer • target audience • purpose • application • constraints • client | | | | | | | | | | | | | | | | | | |
| Making  (Working with tools, equipment, materials and components to make quality products) | * **Y5** With growing confidence (**Y6** Confidently…) select appropriate materials, tools and techniques. * **Y6** Plan the order of their work, choosing appropriate materials, tools and techniques. * **Y6** Suggest alternative methods of making if the first attempts fail. * **Y6** Use tools safely and accurately * **Y5** Begin to measure and mark out more accurately. * **Y6** Understand that mechanical and electrical systems have an input, process and output. * **Y6** Understand how mechanical systems such as cams, pulleys or gears create movement. * **Y6** Know how more complex electrical circuits and components can be used to create functional products. * **Y6** Assemble components to make working models. * **Y6** Construct products using permanent joining techniques. * **Y6** Know how to reinforce and strengthen a 3D framework * **Y5** With growing confidence apply a range of finishing techniques, including those from art and design * **Y6** Accurately apply a range of finishing techniques, including those from art and design * **Y5** Demonstrate how to use skills in using different tools and equipment safely and accurately and with growing confidence cut and join with accuracy to ensure a good-quality finish to the product. | | | | | | | | | | | | | | | | | | |
| Key vocabulary | * materials • mould • liquid • solid • form • shape • adhesive • lattice • mass-produce • hand-made • packaging • presentation • machine made • dimensions • durable | | | | | | | | | | | | | | | | | | |
| Product & Evaluation  (Evaluating processes and products) | * **Y5** Start to evaluate a product against the original design specification and by carrying out tests * **Y6** Evaluate their products, identifying strengths and areas for development and carrying out appropriate tests. * **Y6** Evaluate their work both during and at the end of an assignment * **Y6** Evaluate against their original criteria and suggest ways that their product could be improved. * **Y5** Begin to evaluate it personally and seek evaluation from others * **Y5** Evaluate the key designs of individuals in design and technology has helped shape the world * **Y6** Record their evaluations using drawings with labels * **Y5 & Y6** Evaluate the key designs of individuals in design and technology has helped shape the world | | | | | | | | | | | | | | | | | | |
| Key vocabulary | * assess • edit • improve • alter • outcome • develop • test • analyse • effective • fit for purpose • design criteria • alternatives • models • quality • function • functionality | | | | | | | | | | | | | | | | | | |
| Food and Nutrition | * **Y6** Understand that seasons may affect the food available. * **Y6** Understand how food is processed into ingredients that can be eaten or used in cooking * **Y6** Understand how to prepare and cook a variety of predominantly savoury dishes safely and hygienically including, where appropriate, the use of a heat source * **Y6** Know different food and drink contain different substances – nutrients, water and fibre – that are needed for health | | | | | | | | | | | | | | | | | | |
| Key vocabulary | * healthy • unhealthy • balanced • vitamins • disease • nutrition • healthy eating • hygiene • diet • cross contamination • grams • storage • presentation • taste • texture • flavour • disinfect • bacteria | | | | | | | | | | | | | | | | | | |
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|  | **Olive (EYFS)** | **Fir (Year 1)** | | | **Ivy (Year 2)** | **End of KS1**  **expectations** | | **Year Three**  **(Willow)** | | | **Year Four**  **(Willow/Fig)** | | **Year Five**  **(Fig/Clover)** | | | **Year Six**  **(Clover)** | | | **End of KS2 expectations** |
| Technical Knowledge:  Materials & Structure |  | \*begin to measure and join materials, with some support  \*describe differences in materials  \*suggest ways to make material/product stronger | | | \*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 | \*Build structures, exploring how they can be made stronger, stiffer and more stable | | \*use appropriate materials  \*work accurately to make cuts and holes  \* join materials  \*begin to make strong structures | | | **\***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 | | **\***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 | | | **\***select materials carefully, considering intended use of the product, the aesthetics and functionality.  \*explain how product meets design criteria  \* reinforce and strengthen a 3D frame | | | \*Apply their understanding of how to strengthen, stiffen and reinforce more *complex structures* |
| Technical Knowledge: Mechanisms |  | \*begin to use levers or slides | | | \*use levers or slides  \*begin to understand how to use wheels and axles | \*Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products. | | \*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 | | | **\***select most appropriate tools / techniques  \*explain alterations to product after checking it  \*grow in confidence about trying new / different ideas.  \*use levers and linkages to create movement | | **\***refine product after testing  \*grow in confidence about trying new / different ideas  \*begin to use cams, pulleys or gears to create movement  \*use pneumatics to create movement | | | **\***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 | | | \**Understand* and use mechanical systems in their products [for example, *gears, pulleys, cams,* levers and *linkages*] |
| Technical Knowledge: Textiles |  |  | | | \*measure textiles  \*join textiles together to make a product, and explain how I did it  \*carefully cut textiles to produce accurate pieces  \*explain choices of textile  \*understand that a 3D textile structure can be made from two identical fabric shapes. |  | | **\***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 | | | **\***think about user when choosing textiles  \*think about how to make a product strong and look better  \* 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  \*begin to use their own template | | **\***think about user and aesthetics when choosing textiles  \*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.  \*make a prototype | | | **\***think about user’s wants/needs and aesthetics when choosing textiles  \*make product attractive and strong  \*use a range of joining techniques  \*think about how product might be sold  \*think carefully about what would improve product  \*understand that a single 3D textiles project can be made from a combination of fabric shapes. | | |  |
| Technical Knowledge: Food & Nutrition | \*Begin to understand some food preparation tools, techniques and processes  \*Practise stirring, mixing, pouring, blending  \*Discuss how to make an activity safe and hygienic  \*Discuss use of senses  \*Understand need for variety in food  \*Begin to understand that eating well contributes to good health | \*describe textures  \*wash hands & clean surfaces  \*think of interesting ways to decorate food  \*say where some foods come from, (i.e. plant or animal)  \*describe differences between some food groups (i.e. sweet, vegetable etc.)  \*discuss how fruit and vegetables are healthy  \*cut, peel and grate safely, with support | | | \*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 | \*Use the basic principles of a healthy and varied diet to prepare dishes  \*Understand where food comes from. | | **\***carefully select ingredients  \*use equipment safely  \*make product look attractive  \*think about how to grow plants to use in cooking  \*begin to understand food comes from UK and wider world  \*describe how healthy diet= variety/balance of food/drinks  \*explain how food and drink are needed for active/healthy bodies.  \*prepare and cook some dishes safely and hygienically  \*grow in confidence using some of the following techniques: peeling, chopping, slicing, grating, mixing, spreading, kneading and baking | | | **\***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  \*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 | | **\***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. | | | **\***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.  \*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. | | | \**Understand and apply* the principles of a healthy and varied diet  *\*Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques*  \**Understand seasonality,* and know where and *how a variety of ingredients are grown, reared, caught and processed.* |
| Technical Knowledge: Electrical Systems |  |  | | |  |  | | \*use simple circuit in product  \*learn about how to program a computer to control product. | | | | \*use number of components in circuit  \*program a computer to control product | | \*incorporate switch into product  \*confidently use number of components in circuit  **\***begin to be able to program a computer to monitor changes in environment and control product | | | \*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 | | *\*Understand and use electrical systems in their products [for example, series circuits* |