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| A picture containing logo  Description automatically generatedLogo  Description automatically generated with medium confidence**Harbertonford Primary**  **Design Technology Curriculum Plan**  Our Curriculum statements are designed to be used as a supportive tool to plan teaching and learning across our school. The key skills are derived from the National Curriculum and spilt into individual year groups to support a progressive approach and mixed age classes. |
| The concept of future and innovation underpins our design and technology curriculum - we want pupils to view themselves as designers: risk taking, trialling, and evaluating sitting centrally to their experience. Pupils are encouraged to exercise their creativity through our designing, making and evaluating cycle. Combining designing and making skills, with knowledge and understanding ensures pupils have a rounded, progressive experience and provides skills that can be drawn upon for life. Evaluation is an integral part of the design process, allowing children to improve and adapt their product and providing a platform to build and practice resilience. Capturing pupil interests and providing cross-curricular opportunities to embed D&T develops motivation and embeds understanding in a meaningful way. |

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| **Vocabulary**  Children’s command of vocabulary is fundamental to learning and progress across the curriculum. Vocabulary is developed actively, building systematically on pupil’s current knowledge and deepening their understanding of etymology and morphology (word origins and structures) to increase their store of words. Simultaneously, pupils make links between known and new vocabulary, and discuss and apply shades of meaning. In this way, children expand the vocabulary choices that are available to them. It is essential to introduce technical vocabulary which define each curriculum subject. Vocabulary development is underpinned by an oracy culture and a tiered approach. High value is placed on the conscious, purposeful selection of well-chosen vocabulary and appropriate sentence structure to enrich access to learning and feed into written work across the curriculum. |
| **KS1 D&T Vocabulary List**   |  |  |  | | --- | --- | --- | | Design | Assemble, join & combine | Hygiene/hygienically | | Product | Food plant names | Intended user | | Idea | Animals that produce/give food | Measure, mark out | | Template | Names of different food ingredients | Mock-up | | Labelled diagrams | Structures | Finishing techniques | | Names of different materials & textiles | Names of tools for cutting, peeling and grating | Slider, lever, hinge | | Eatwell Plate –  fruit and vegetables, potatoes, bread, rice, pasta and other starchy carbohydrates, beans, pulses, fish, eggs, meat and other proteins, dairy and alternatives, oils and spreads | | Wheel, axel & chassis |   **KS2 D&T Vocabulary List**   |  |  |  | | --- | --- | --- | | Purpose | Levers and linkages | Electrical circuits, switches, buzzers | | Design features | Pneumatic systems | Programming | | Intended users | Movement | Structures: Reinforce and strengthen, stronger, stiffer and steadier. | | Prototype | Healthy diet | Computer aided programmes: program, monitor and control | | Mock-up | Cross-sectional drawing | Complex electrical circuits | | Pattern piece | Cams, pulleys, gears | Motor, battery | | Annotated sketches & diagrams | Recycled | Conductor, insulator | | Design criteria | Reused | Crocodile clips | | Components | Exploded diagram |  |   DT is taught once each term in a 6-week block, alternating with Art and Design.  Where possible, it is linked in with topic or other curriculum subjects and KAPOW is used as a core planning tool.  Each unit of work follows the research and design, make and evaluate cycle. Each stage is rooted in technical knowledge and vocabulary. The design process should be rooted in real life, relevant contexts to give meaning to learning. While making, children will be given choice and a range of tools to choose freely from. Children should be able to evaluate their own products against a design criterion. Learning and curriculum objectives are tracked and evidenced on Microsoft SWAYs shared on Teams. |
| **The National Curriculum** |
| **EYFS**  **Nursery**  Pupils should be taught:  • Explore different materials, using all their senses to investigate them. Manipulate and play with different materials.  • Use their imagination as they consider what they can do with different materials.  • Make simple models which express their ideas.  \*Explore different materials freely, to develop their ideas about how to use them and what to make.  • Develop their own ideas and then decide which materials to use to express them.  • Join different materials and explore different textures.  **Reception**  Pupils should be taught:  • To return to and build on their previous learning, refining ideas and developing their ability to represent them.  • To create collaboratively, sharing ideas, resources and skills  Key stage 1  Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home and school, gardens and playgrounds, the local community, industry and the wider environment].  When designing and making, pupils should be taught to:  Design  § design purposeful, functional, appealing products for themselves and other users based on design criteria  § generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology  Make  § select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]  § select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics Evaluate  § explore and evaluate a range of existing products  § evaluate their ideas and products against design criteria  Technical knowledge  § 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.  Key stage 2  Through a variety of creative and practical activities, pupils should be taught the knowledge, understanding and skills needed to engage in an iterative process of designing and making. They should work in a range of relevant contexts [for example, the home, school, leisure, culture, enterprise, industry and the wider environment].  When designing and making, pupils should be taught to:  Design  § use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups  § generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design  Make  § select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately  § select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities  Evaluate  § investigate and analyse a range of existing products  § evaluate their ideas and products against their own design criteria and consider the views of others to improve their work  § understand how key events and individuals in design and technology have helped shape the world  Technical knowledge  § apply their understanding of how to strengthen, stiffen and reinforce more complex structures  § understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]  § understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]  § apply their understanding of computing to program, monitor and control their products.  Cooking and nutrition  As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the great expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life.  Pupils should be taught to:  Key stage 1  § use the basic principles of a healthy and varied diet to prepare dishes  § understand where food comes from.  Key stage 2  § 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. |
| **Progression of Key Skills** |
| **Key skills** |
| |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | | **Strand** | **Year 1** | | | | | **Year 2** | **Year 3** | | **Year 4** | | **Year 5** | | | **Year 6** | | | **Design** | | **Design purposeful, functional, appealing products for themselves and other users based on design criteria.**  **Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.** | | | | | **Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.**  **Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.** | | | | | | | | | | Can I use my senses to explore a wide range of familiar products?  Can I take products apart and talk about the parts and how they work?  Can I talk about and/or use words and pictures to plan my design?  Can I talk about what I am doing/making? | | Can I use knowledge of existing products to support my plan for a similar product?  Can I include some knowledge of materials and techniques in my design?  Can I explore and investigate products I have disassembled?  Can I use construction kits, pictures and captions to plan my design?  Can I talk about and describe the tools and materials I need and order the key tasks within my plan? | | | Can I generate, develop and explain ideas for products to meet the needs of a specific audience?  Can I choose appropriate tools and techniques based on those shown?  Can I dissemble and investigate everyday products to see how they are fit for purpose?  Can I communicate design ideas in different ways (eg verbally, written, in a labelled diagram)  Can I plan what I am going to do next based on how my product is developing? | | Can I use my knowledge of a range of products to inform my plans and designs?  Can I include a range of suitable materials and options in my plans and designs and suggest alternative ways to make their product?  Can I talk about and disassemble products and describe their function?  Can I use prototypes, labelled sketches and instructions in my plans and designs?  Can I talk in depth about my ideas, plans and reasons for choices? | | | Can I generate plans and designs based on ideas and information that takes account of the users’ views and the intended purpose?  Can I look at mechanical products to see how they function and meet the user’s needs?  Can I consider safety and reliability when planning my product?  Can I use simple prototypes to test ideas?  Can I plan what to do next, suggesting a detailed sequence of actions and alternatives if needed? | | Can I generate ideas by collecting and using information, from a number of sources, including ICT based sources?  Can I produce detailed designs and plans using prototypes, commentary and diagrams that include measurements and are drawn from different view points?  Can I investigate, disassemble and evaluate a range of products and describe in detail their parts and their function?  Can I clarify my ideas through discussion, drawing upon and using a range of sources of information?  Can I use detailed plans from different views?  Can I modify my plans effectively? | | | **Make** | | **Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]. Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.** | | | | | **Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately.**  **Select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities.** | | | | | | | | | | Can I use simple tools and materials with support, eg. scissors to cut paper?  Can I use my senses to explore and talk about materials?  Can I join with tape or glue?  Can I cut paper/card using scissors?  Can I roll paper and card to form a tube?  Can I add paper and card shapes to products? | | Can I use simple tools to cut and join a range of materials, eg. scissors, stapler, masking tape?  Can I use a range of simple ways to improve the appearance of my product?  Can I join by edge to edge using glue?  Can I curl paper?  Can I use a hole punch? | | | Can I select the appropriate tool to cut or join a range of materials?  Can I use tools and equipment to measure, mark out and shape materials and components?  Can I select an appropriate way to improve the appearance of my product?  Can I make gluing tabs?  Can I insert paper fasteners for card linkages?  Can I use a hack saw and bench hook?  Can I make simple paper models, mock-ups and templates? | | Can I select a range of appropriate tools to cut or join materials?  Can I use tools and equipment to measure, mark out and shape materials and components with greater accuracy and control?  Can I produce a well-finished product that fulfils the function it is designed for?  Can I join and combine materials in permanent and temporary ways?  Can I use a G clamp?  Can I make increasingly complex mock-ups and templates? | | Can I select a range of appropriate tools to cut or join materials with accuracy and precision?  Can I use a range of tools and equipment to measure, mark out and shape materials and components accurately?  Can I identify and apply an appropriate finishing technique to ensure a high quality end product?  Can I join and combine a range of materials in permanent and temporary ways?  Can I use a drill to make an off-centre hole?  Can I make complex mock-ups and templates? | | Can I select a range of appropriate tools to cut or join materials with accuracy and precision?  Can I use a range of tools and equipment to measure, mark out and shape materials and components accurately?  Can I use a variety of finishing techniques eg. collage, paint, embroidery and embellishments?  Can I use appropriate finishing techniques to strengthen and improve the appearance, using a range of equipment and ICT  to make a product which is finished to a high standard, using the appropriate tools and following a detailed plan? | | | | **Evaluate** | | **Explore and evaluate a range of existing products. Evaluate their ideas and products against design criteria.** | | | | | **Investigate and analyse a range of existing products. Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. Understand how key events and individuals in design and technology have helped shape the world.** | | | | | | | | | | Can I use my senses to explore a wide range of familiar products?  Can I talk about familiar products and what they do?  Can I talk about what I am making and what I have done? | | Can I talk about and describe features of existing products?  Can I talk about what I am doing and what I might do next?  Can I suggest ways in which I could improve my work? | | | Can I use my knowledge of common products, their characteristics and properties to support my work?  Can I talk about how the changes I have made have improved by product?  Can I identify the ways in which my product meets my design plan? | | Can I identify the ways in which I have used my knowledge of products and materials to inform my work?  Can I take the function of the product into account when planning?  Can I identify the parts of my project that are progressing well and parts that could be improved?  Can I identify where evaluation has led to improvements? | | Can I test and evaluate products to identify the variants which may affect the function of my product?  Can I check my work as it develops and modify may plans if any changes are made?  Can I take into account the original criteria when evaluating my product?  Can I reflect on my progress and identify ways?  Can I improve my product? | | Can I carry out appropriate tests before making any improvements, including testing and evaluating products and information sources?  Can I give reasons for the success of aspects of my project and provide considered solutions to resolve those parts that could be improved?  Can I take into account the original criteria when evaluating my product? | | | | **Electrical and Mechanical Components** | | Can I use my senses to explore battery powered toys, eg, cars, trains, tills etc?  Can I talk about electrical equipment in my home, eg, kettle, telephone, and microwave?  Can I explore the use of bulbs, wires and batteries? | | Can I talk about how common electrical equipment works, eg, kettle, telephone, and microwave?  Can I create a simple circuit using a battery, bulb and wires?  Can I use remote controlled devices, eg, a remote controlled vehicle, Bee bot etc? | | | **Understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors]** | | | | | | | | | | Can I describe how a simple battery powered circuit can be controlled by different kinds of switches?  Can I create simple circuits incorporating a battery, bulb, switch and wires?  Can I talk about simple electrical safety?  Can I explore and describe how an electric motor can be used in a circuit?  Can I use a remote-controlled device to switch lights on and off?  Can I explore and describe materials that can be used to conduct electricity?  Can I explore and explain how the direction and speed of an electrical motor can be controlled?  Can I explore and program a simple control device? | | | | | Can I explore and describe how electrical circuits with switches can be used?  Can I use switches in a range of circuits to control components, eg, lights in a lighthouse, a movement sensor in a burglar alarm?  Can I use my knowledge of conductors and insulators when constructing circuits?  Can I talk in depth about the hazard and safety issues associated with electricity?  Can I apply appropriate safety measures when constructing circuits?  Can I talk about how electricity can be used to control movement?  Can I explore and use a complex control system, eg, a light sensor? | | | | | **Food Technology** | | **Use the basic principles of a healthy and varied diet to prepare dishes?**  **Understand where food comes from?** | | | | | | | **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?** | | | | | | | | Can I sort fruit and vegetables by taste, shape, size, colour and texture?  Can I sort food into groups, eg, fruit, vegetable, meat etc?  Can I use basic tools to cut, shape and mix, eg, cutters and whisks?  Can I understand where a few of the food I am cooking comes from? | | Can I work safely and hygienically?  Can I sort and classify food into food groups, eg, vegetables, pulses, cereals, dairy etc?  Can I measure and weigh accurately using cups and spoons?  Can I talk about what happens when I cook and bake?  Can I understand what makes a healthy diet?  Can I talk about where some of the food I am cooking comes from? | | | Can I talk about what needs to be done in order to work safely and hygienically?  Can I use simple tools eg, hand whisk, rolling pins?  Can I sort and classify food according to specific food groups, eg, proteins, carbohydrates, fats etc?  Can I measure and weigh using standard units and scales?  Can I talk about the way in which food processing can affect the taste, appearance, texture and colour of food?  Can I understand what makes a varied and healthy diet?  Can I talk about where the food I am cooking comes from? | | Can I talk about why we need to work safely and hygienically?  Can I talk about the characteristics of a range of food and ingredients and where the foods come from?  Can I use my knowledge of food and cooking to start generate my own recipes?  Can I talk in simple terms about the physical and chemical (observational skills)?  Can I understand how some of the ingredients are grown, reared, caught and processed? | | Can I apply the rules for basic food hygiene and other safe practices eg, hazards relating to the use of ovens?  Can I talk in detail about the characteristics of a range of food and ingredients and where the food comes from?  Can I talk about the impact of changing proportions within a recipe?  Can I talk in scientific terms about the physical and chemical changes that take place when food is cooked?  Can I understand how a variety of the ingredients are grown, reared, caught and processed? | | | Can I understand the practice needed in terms of food hygiene and kitchen safety?  Can I talk about how the properties of certain foods can affect the final product?  Can I choose the appropriate methods and equipment for measuring, eg, time, dry goods, liquids etc?  Can I compare and evaluate several ideas in order to draw up a design specification?  Can I compare commercial and domestic processes for producing food, eg, bread?  Can I understand how most of ingredients are grown, reared, caught and processed?  Can I understand seasonality? | | | **Mechanisms. Axles, Pulleys and Gears** | | | **Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.** | | | | | **Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages].** | | | | | |  | | Can I explore and talk about books containing moving pictures?  Can I construct a simple slider with support?  Can I construct a simple lever with support?  Can I explore and use construction kits containing gears? | | Can I deconstruct a simple slider and describe how it works?  Can I construct a simple slider independently?  Can I make a lever by joining card strips with paper fasteners?  Can I attach wheels to a chassis using an axle, eg, cotton reels and dowel?  Can I use pencils or tubes as rollers to move an object across the floor?  Can I construct a simple pulley using rope over a horizontal bar to raise an object off the ground?  Can I use construction kits with gears to construct a line of gears that turn? | | | Can I deconstruct and reconstruct sliders and levers?  Can I join levers to make linkages to create moving parts?  Can I vary the position of the pivot point to lift a load using a lever?  Can I construct a simple pneumatic system with one moving part?  Can I identify the cam within a simple mechanism and explain how movement is changed?  Can I construct boxes of different sizes from a net?  Can I attach a fixed axle to a chassis and add wheels ensuring that they can move freely?  Can I construct a pulley that allows a load to travel horizontally along a rope?  Can I use construction kits with gears to mesh gears at right angles? | | Can I create a range of sliders and levers to produce horizontal and vertical movement?  Can I combine sliders and levers to produce a range of movements?  Can I construct a pneumatic with two moving parts?  Can I describe the way in which a cam changes rotary motion into linear motion?  Can I use a range of different ways to attach an axle to a chassis, eg, card triangles, drilled holes, cable clips and clothes pegs?  Can I identify and describe products that contain pulleys and drive belts? | Can I choose and use a range of sliders and levers accurately to create a range of effects?  Can I use simple mechanisms eg, pulleys, gears, cams, cogs?  Can I attach to motors for electrical control?  Can I use the computer to operate switch and devise simple programmes to control own models?  Can I describe in detail the way in which an axle and chassis help a vehicle to move?  Can I talk about how pulleys and drive systems can be driven by motor and computer? | | | Can I use a range of technical vocabulary to describe the properties and functions of mechanisms?  Can I generate questions to investigate?  Can I talk about the relationship between a cam and follower, an off-centre cam, a peg cam, a pear-shaped cam and a snail cam?  Can I design and build a working model where the direction of movement can be controlled, eg. with a chassis with a pivoting axle?  Can I understand how a belt and pulley system can be used to reverse the direction of rotation, and alter the plane of rotation by 90 degrees?  Can I explain how the number of teeth of a gear affects the speed of rotation? | | **Structures** | | | Can I explore and investigate a range of simple, large scale construction materials, eg, cardboard boxes?  Can I build buildings, bridges and towers using small-scale construction materials, eg, Duplo?  Can I make simple 3D structures using straws? | | Can I construct a range of structures using simple construction kits?  Can I make my structures more stable by widening the base?  Can I make a square frame from strip wood?  Can I make a simple card hinge? | | | **Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.** | | | | | | | | Can I deconstruct and assemble the net of basic 3D shapes?  Can I measure and cut dowel accurately?  Can I use a range of materials to make simple joints, glue, tape and paper clips?  Can I make a rectangular frame from strip wood?  Can I strengthen 2D frames by adding diagonal bracing struts? | | Can I create nets of increasingly complex 3D shapes which include the addition of gluing tabs?  Can I use a range of materials to make joints including, card strips, elastic bands, thread and ties, and plastic tubing?  Can I reinforce and strengthen 3D framework using the concept of ‘triangulation’?  Can I explain in detail why some structures fail? | Can I construct regular free standing 3D frames?  Can I use techniques for reinforcing and strengthen structures?  Can I use construction kits and building instructions to identify how structures are established and strengthened? | | | Can I create nets and templates accurately in a range of sizes?  Can I use a range of methods to strengthen 3D structures and frames?  Can I build a range of structures using a wide range of effective materials?  Can I investigate measure and record the load tolerance of different structures?  Can I find ways of improving a structures load-bearing capacity? | | **Textiles** | | | Can I sort and group textiles by texture and colour?  Can I cut and stick fabrics together?  Can I apply simple decoration, e.g. fabric crayons, gluing on feathers etc? | | Can I use a simple template?  Can I join fabrics using glue, staples and thread?  Can I decorate fabrics by painting and printing? | | | Can I make and use a simple paper pattern?  Can I cut and join fabrics using running stitch, buttons and bond web?  Can I decorate fabric by applying beads and sequins? | | Can I make and use a paper pattern that includes a seam allowance?  Can I use a wide range of finishing techniques?  Can I use more than one type of stitch to join materials together?  Can I select the most appropriate joining technique? | Can I create my own patterns and templates?  Can I select an appropriate material to create a product?  Can I use a wide range of techniques to add colour, texture and pattern to fabric?  Can I sew using a range of stitches including, backward running stitch and over sewing?  Can I join fabrics in a range of different ways using zips, tie clasp, toggles, press-studs and buttons? | | | Can I create my own patterns and templates that are accurately measured?  Can I use different but appropriate way to join materials, eg, glue, pins, press studs, Velcro, various stitches, buttons etc?  Can I use a sewing machine to join and decorate fabric? | |
| **2 year rolling Programme**   |  |  |  |  |  | | --- | --- | --- | --- | --- | | **Class** | **Yr** | **Autumn Term** | **Spring Term** | **Summer Term** | | **Little Owls** | A | **Cooking & Nutrition with BH:**  Make carrot cake muffins  -Weighing, mixing, spooning  -Making sure we work tidily – why?  -Teamwork  **FT- Learn about 5-a-day – why can’t we eat cake ALL the time?** | **Cooking & Nutrition with BH:**  Prepare a delicious fruit salad  -Cut up fruit (using an eating knife)  -Identify ingredients  -Mix together  **FT- Fill in their Fruit and veg diary daily for a week - take home** | **Cooking & Nutrition with BH:**  Making bread rolls  -Mixing the ingredients together in a bowl  -Using your hands to knead the dough  -Rolling shapes in your hand with the dough ready to bake  -Milk/Egg wash and put on trays  **FT- What foods have bread in them i.e. pizza, sandwich, burger?** | | B | **Cooking & Nutrition with BH:**  Frozen Banana and Chocolate Ice Lollies  -Cutting up banana and piercing with a stick  -Dipping/Covering banana in chocolate  -Decorating your food with sprinkles/berries ect  **FT- Think about what other healthy snacks** | **Cooking & Nutrition with BH:**  Healthy Mini Quiche in a tortilla case  -Cutting shapes out of wraps  -Greasing a tin with oil – why?  -Filling our cases with egg mixture  -Putting in different ingredients  **FT- Where does food come from? Shop? Farm? Animals? Ground?** | **Cooking & Nutrition with BH:**  Sausage Rolls  -Preparing the pastry by rolling  -Putting in the sausage and rolling it all up  -Cutting the tops and the ends off as needed  -Egg washing for colour  -Carefully putting on a tray  **FT – Try and remember all the ingredients that we used. Can you remember all the steps to the recipe?** | | **Owls** |  | **Cooking & Nutrition with BH:**  Make a sandwich and identify ingredients  Taste testing  -Spreading with a knife  -Preparing and chopping ingredients  -Learning how to identify ingredients  -Learn about combinations of foods  **FT – Help someone at home make a sandwich and bring in some pictures!** | **Cooking & Nutrition with BH:**  Make chocolate biscuits from scratch  -Help to weigh out some ingredients  -Mix all the ingredients together  -Roll out dough  -Cut out shapes from the dough  -Put the shapes on a tray    **FT- Learn in class about why we make our own things sometimes – biscuits, and not buy them from a shop – cheaper, healthier, tastier, you can change the ingredients** | **Cooking & Nutrition with BH:**  Make Pizza Muffins  -Spread on tomato sauce  -Cut up ingredients for toppings as needed  -Follow the steps in order – why?  **FT- Learn about the eatwell plate. How can we make our pizzas healthier/ tastier next time?** | | **Falcons** | A | **City Life**  **Structures**  Design, make and evaluate houses - Explore stability and methods to strengthen structures. Understanding weaknesses and developing an improved solution  [**https://www.kapowprimary.com/subjects/design-technology/key-stage-1/year-2/structures-baby-bears-chair/**](https://www.kapowprimary.com/subjects/design-technology/key-stage-1/year-2/structures-baby-bears-chair/)  **Cooking & Nutrition with BH:**  Chicken/Cheese Salad Wraps  Cutting up salad  Folding to prevent spillage and make it look appetising  -Follow instructions  -Choose their own ingredients  -Use a knife safely  -Identify a variety of ingredients  **FT- Fill in their Fruit and veg diary daily for a week - take home** | **Petrifying Pirates**  **Mechanisms** – story book Mechanisms   Making a moving story book - Kapow Primary  [**https://www.kapowprimary.com/subjects/design-technology/key-stage-1/year-1/mechanisms-making-a-moving-story-book/**](https://www.kapowprimary.com/subjects/design-technology/key-stage-1/year-1/mechanisms-making-a-moving-story-book/)  **Cooking & Nutrition with BH:**  Cheese Scones  They will start to learn to follow a recipe.  -I will provide some weighed ingredients and some that they will need to weigh out themselves.  -They will need to mix, roll and cut and then put onto a tray.  -I will cook everything and return at the end of the day.  **FT- Research which food groups are included in the recipe, and how could we incorporate the ones that we are missing by adjusting the recipe next time?** | **Historic Harberton**  **Food technology**  [**https://www.kapowprimary.com/subjects/design-technology/key-stage-1/year-2/food-a-balanced-diet/**](https://www.kapowprimary.com/subjects/design-technology/key-stage-1/year-2/food-a-balanced-diet/)  **Cooking & Nutrition with BH:**  Garlic bread Pizza  Rolling bread dough to a suitable size and shape  Preparing and then spreading the garlic butter   -Follow a recipe  -Rolling to correct thickness  -Following instructions  -Spreading on the topping  -I will provide bread dough and cook them.  **FT- Re-write the quantities for half and double the portions. Why would we need to do this in the real world? Also, how could the recipe be changed for special diets – i.e GF, DF?** | | B | **Contrasts and Comparisons**  **Textiles – Puppets**  [**https://www.kapowprimary.com/subjects/design-technology/key-stage-1/year-1/textiles-puppets/**](https://www.kapowprimary.com/subjects/design-technology/key-stage-1/year-1/textiles-puppets/)  **Cooking & Nutrition with BH:**  Homemade Jammy Dodger Biscuit  Follow a recipe and produce a successful end product with limited guidance  Practice using the weighing scales  Being careful not to overfill- why is this important?  -Following instructions carefully  -Following the method in order  -Weighing up ingredients  **FT- Make them at home – Bring in pictures!** | **Where we live**  **Structures – Windmill**  [**https://www.kapowprimary.com/subjects/design-technology/key-stage-1/year-1/ks1-y1-design-and-technology-constructing-windmills/**](https://www.kapowprimary.com/subjects/design-technology/key-stage-1/year-1/ks1-y1-design-and-technology-constructing-windmills/)  **Cooking & Nutrition with BH:**  Homemade Quiche  Follow a recipe and produce a successful end product with limited guidance  Learn about the dangers in a kitchen, link to raw egg  Being careful not to overfill- why is this important?  -Following instructions carefully  -Rolling (not overworking) pasty  -Filling with a variety of ingredients  -Preparing ingredients  **FT- Design a safety poster for a kitchen.** | **Across the Sea**  **Mechanisms: Wheels and axles – Sea tractor.**  [**https://www.kapowprimary.com/subjects/design-technology/key-stage-1/year-1/mechanisms-wheels-and-axles/**](https://www.kapowprimary.com/subjects/design-technology/key-stage-1/year-1/mechanisms-wheels-and-axles/)  **Cooking & Nutrition with BH:**  Write your own recipe for a dish we’ve already made and change it to your taste  -Create a dish using a variety of ingredients  -Write and follow the recipe.  -Using timing and ingredients effectively – limit wastage  -Practice good kitchen safety at all times  -Use skills previously learnt  -Make sure everything is consistent  **FT- Research the ingredients and recipe and write it out in your own words – Edit the recipe to your own taste/preference.** | | **Kestrels** | A | **Dartmoor Rocks**  **Mechanisms** – **wheel and axels** - make an iron age cart  Resource  adapted for topic link  Children transform lollipop sticks, wheels, dowels and straws into a moving cart. They will be using a glue gun to construct the materials, making the launch mechanism, designing and also making the body of the vehicle using nets and assembling these to the chassis  **Cooking & Nutrition with BH:**  Pizza  Rolling bread dough to a suitable size and shape  Preparing toppings as needed  -Follow a recipe  -Rolling to correct thickness  -Following instructions  -Cutting up ingredients with a knife for toppings  -I will provide bread dough and cook them.  **FT- I will give them the list of ingredients used, they should write the recipe that we used.** | **Eruptions and Explosions**  **Textiles** – making a fairy tale themed cushion  This unit is linked to the teaching sequence Ratpunzel – a twist on a fairy tale.  Having already learnt the basics of sewing and decorating fabric in earlier years, this topic offers extra challenge by introducing two new skills to add to their repertoire: cross stitch and appliqué. After learning these techniques, they apply their knowledge to the design, decoration and assembly of their very own cushions based on the twisted fairy tale Ratpunzel  <https://www.kapowprimary.com/subjects/design-technology/lower-key-stage-2/year-3/textiles-cushions/>  **Cooking & Nutrition with BH:**  Gingerbread  They will follow recipe fairly independently.  -I will provide rough ingredients and they will need to weigh them out.  -They will need to mix, roll and cut and then put onto a tray.  -I will cook everything and return at the end of the day.  **FT- Make at home – bring in pictures!** | **Greece is the Word**  Design, make, evaluate sandals  To design and make an ancient Greek sandal for a Greek man or woman’  (Not Kapow)  **Cooking & Nutrition with BH:**  Savoury Breakfast Bites  Weigh out  Vary ingredients  Prep ingredients  Focus specifically on safe methods and cleanliness  -All ingredients available, they will measure and prepare their own.  -They must vary their products, whilst keeping them consistent size/shape.  -Safely prepare for dietary requirements.  -I will cook and cool.  **FT-Science link- Which food groups did we use? How could we incorporate any that are missing next time? How could we make the product healthier?** | | B | **Remarkable Romans**  **Electrical systems: Electric poster**  This unit introduces children to various forms of 'Information design' before they are briefed to develop a museum display based on The Romans. The unit links to Science as well as History touching on simple circuit components and electric products.  <https://www.kapowprimary.com/subjects/design-technology/lower-key-stage-2/year-3/electrical-systems-electric-poster/>  **Cooking & Nutrition with BH:**  Homemade and Home Grown (in Forest School) Pumpkin Soup and a homemade roll (pumpkin, coriander, cumin, veg stock, carrots, cream)  Follow recipe independently to a good standard  -Safe practice  -Following instructions carefully  -Following the method in order  -Weighing up ingredients  **FT- Follow up – Forest School link – How do we look after plants? Why are plants important when cooking? What ingredients would we have if there were no plants in the world?** | **Rivers and Coasts**  Not topic linked  **Mechanical Systems: Pneumatic toys**  s.    <https://www.kapowprimary.com/subjects/design-technology/lower-key-stage-2/year-3/mechanical-systems-pneumatic-toys/>    **Cooking & Nutrition with BH:**  Homemade Burger in a (bought) roll with salad  -Create their meal to an excellent standard with limited guidance  -The importance of preparation  -Limit wastage – why?  -Understanding the temperatures of food and it’s importance – probing, why? Not leaving food in danger zone i.e. meat.  **FT- Produce a safety poster for a kitchen which includes information on safe cooking temperatures and good hygiene.** | **Enlightened Egyptians**  **Programming Adventures** – Programming a Beebot/Programmable vehicle    An adapted Twinkl unit where children will apply their understanding of computing to program a floor robot. They will explore a range of adventure maps and use these to create original designs for a Hunt the Pharoah's Tomb Quest. As a group, they will research how floor robots move along different types of materials and use this knowledge to create obstacles squares. Children will use appropriate joining methods to make a scale adventure map. They will test and evaluate the effectiveness of another group’s obstacle squares  **Cooking & Nutrition with BH:**  Homemade fish and chips (provide cod, they portion, coat in flour, eggs, breadcrumbs, and they peel and cut potatoes into chips)  -Create a full meal from scratch  -Follow the recipe exactly, independently.  -Using timing and ingredients effectively – limit wastage  -Practice good kitchen safety at all times  -Use skills previously learnt  -Make sure everything is consistent  **FT- Research the ingredients on a supermarket website – work out how much it would cost to make the dish again.** | | **Eagles** | A | **World at War**  **Hydraulics** – submarines.  Tech 2 folder (AB) page 98  **Cooking & Nutrition with BH:**  Mince Pies / Jam Tarts  Rolling and Cutting shapes from homemade pastry  Why overfilling might be an issue  -Follow a recipe  -Measure their own ingredients  -Crack their own egg  -Rolling to correct thickness  -Filling and topping cases with mincemeat/jam/pasty top – don’t overfill (spillages, won’t cook through properly, won’t taste nice)  -I will bake and cool  **FT- Double of half the recipe – Why would we need to do this in the real world?** | **Out of this World**  **Mechanical** – pop up book with Space theme. <https://www.kapowprimary.com/subjects/design-technology/upper-key-stage-2/year-5/mechanical-systems-making-a-pop-up-book/>  **Cooking & Nutrition with BH:**  Cheese Wheels  Carrot slices vs diced vs batons – cooking speed (with peas) vs appetising/visual  They will follow recipe.  -I will cook potatoes, they can add milk/butter and seasoning and mash it.  -I will provide block of puff pastry, they need to roll.  -They can grate cheese.  -Layer mash and cheese on top of rolled pastry, roll up, slice and tray.  -Prepare vegetables (washed carrots-peal and dice).  -I will cook everything and return at the end of the day.  **FT- Look into the Eatwell plate. Fill in their Fruit and veg diary daily for a week (5+ a day) - take home** | **The Awesome Americas**  **Electricity** – greetings card (link to science unit this term). <https://www.kapowprimary.com/subjects/design-technology/upper-key-stage-2/year-5/electrical-systems-electronic-greetings-cards/>  **Cooking & Nutrition with BH:**  Savoury Muffins  Weigh out  Vary ingredients  Focus specifically on safe methods and cleanliness  -All ingredients available, they will weigh their own.  -They must vary their products, whilst keeping them consistent size/shape.  -Safely prepare for dietary requirements.  -I will cook and cool.  **FT- Make them again at home- bring in pictures!** | | B | **Vicious Vikings**  Structures – bridges.  <https://www.kapowprimary.com/subjects/design-technology/upper-key-stage-2/year-5/structure-bridges/>  **Cooking & Nutrition with BH:**  Christmas Party Buffet  Split tasks evenly and effectively and follow recipes to a good standard  Be consistent!  -Homemade sausage rolls  -Mini Pizzas  -Cheese and Pineapple on sticks  -Mini chicken and veg kebabs  -Vegetable sticks  -‘Sliders’- Mini burgers  -Coleslaw  -Homemade Potato Wedges  -Mini Quiche  -Christmas Cookies  **FT- Invite in community/parents to share!** | **You Are What You Eat**  **Cooking & Nutrition with BH:**  Plan and create DIY Simple Recipe for your group (less than 6 ingredients)  -Costing  -Knowledge of how to prepare ingredients  -Working as a team  -Learn about cooking temperatures and cooking methods  Tasks:  -Create their meal to an excellent standard with limited guidance  -Limit wastage – why?  **FT- PRIOR TASK – Plan and provide ingredient shopping list. Learn about seasonality and where ingredients come from and link to your recipe.** | **Terrible Tudors**  Textiles – Stuffed toys.  <https://www.kapowprimary.com/subjects/design-technology/upper-key-stage-2/year-5/textiles-stuffed-toys/>  **Cooking & Nutrition with BH:**  Plan and create a 2 course menu (1 course must be served cold) for 4 people for under £10.  -Ensure that it contains all elements of food groups (eatwell plate) and knowledge of where these are in the recipe  -Correctly set a table  -Be able to talk about your dish confidently  Tasks:  Research, plan and execute a 2 course meal for 4 people.  -Create a menu  -Find and use recipes  -Create the dish within your team, using timings and ingredients effectively  -Practice good kitchen safety at all times  -Use skills previously learnt  -Importance of ‘eating with your eyes’ – presentation and also quality of food  **FT- Research and plan your meal- LOTS of detail. Provide shopping list with quantities.** | |
| **In order to assess impact - a guide** |
| Our DT Curriculum is high quality and planned to demonstrate progression and build on knowledge and skills, enabling children to become independent and creative learners.    We measure the impact of our curriculum through:   * Pupil discussions about their learning, which includes discussion of their thoughts, ideas, processing and evaluations of work. * Displays reflecting the children’s sense of pride in their DT work and this is also demonstrated by creative outcomes across the wider curriculum. * Images and videos of the children’s practical learning.   Assessment of children's learning in Design Technology is an ongoing monitoring of children's understanding, knowledge and skills by the class teacher, throughout lessons. Teachers use this information to inform future lessons, ensuring children are supported and challenged appropriately. |