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| **Design and Food Technology**  **Medium Term Planning** |
| **Year 6** |
| **Throughout the year*** Describe the purpose of their products
* Generate innovative ideas, drawing on research
* Produce appropriate lists of tools, equipment and materials and/or ingredients that they need
* Select tools and equipment suitable for the task
* Accurately apply a range of finishing techniques, including those from art and design
* Evaluate their ideas and products against their original design specification

Identify the strengths and areas for development in their ideas and products |
| **Autumn****WW2 – Structures** |
| **Design Brief****User/Purpose** | **Key Learning** | **Key Vocab** | **End Points** |
| The war has started and lots of families are looking for a safe shelter. Can you help to design and make a functional air raid shelter for a family and their pet dog to help to keep them safe? Your shelter must be strong and sturdy and you must consider the best materials to achieve this. How will you make sure that your shelter can be hidden within a landscape?  | 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

Make* select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately

Evaluate* evaluate their ideas and products against their own design criteria and consider the views of others to improve their work

Technical Knowledge* apply their understanding of how to strengthen, stiffen and reinforce more complex structures
 | * build
* stable
* reinforce
* materials
* durability
* suitability
* waterproof
* strength
* size
* protect
 | * To be able to design and make a strong and durable shelter using effective and suitable materials to withstand the war.
* To test their structure for strength and durability.
* To select the most appropriate materials.
* To adapt their design, model and materials along the way.
* To be able to evaluate skills developed as well as effectiveness of their design model.
* To create a product that fits the design brief.
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| **Spring****Our World – Mechanisms** |
| **Design Brief****User/Purpose** | **Key Learning** | **Key Vocab** | **End Points** |
| Our playground is undergoing some changes. Mr McDowell and the governing body has asked you to research, design and make a prototype for new playground equipment. You must design and build a range of play apparatus and consider the suitability of your structures for the ages of the children in our school.    | * To know that structures can be strengthened by manipulating materials and shapes.
* To understand what a ‘footprint plan’ is.
* To understand that in the real world, design can impact users in positive and negative ways.
* To know that a prototype is a cheap model to test a design idea.
 | * apparatus
* design criteria
* equipment
* playground
* landscape features
* Cladding
* Apparatus.
 | * Designing a playground featuring a variety of different structures, giving consideration to how the structures will be used.
* Considering effective and ineffective designs.
* Building a range of play apparatus structures drawing upon new and prior knowledge of structures.
* Measuring, marking and cutting wood to create a range of structures.
* Using a range of materials to reinforce and add decoration to structures.
* Improving a design plan based on peer evaluation.
* Testing and adapting a design to improve it as it is developed.
* Identifying what makes a successful structure.
* To create a product that fits the design brief.
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| **Summer****Transition/ End of Primary School Journey – Textiles** |
| **Design Brief****User/Purpose** | **Key Learning** | **Key Vocab** | **End Points** |
| Your journey at Shavington Primary School is coming to an end and it is nearly time to say goodbye! To remember your special time at Shavington, and to remember all your primary school friends, you will design and make a memory bear; which your friends will be able to sign, and you will be able to take with you when you leave. You bear has to look appealing, be designed to allow your friends to sign it and be securely stitched to ensure it is strong and holds the stuffing securely.  | * To know that blanket stitch is useful to reinforce the edges of a fabric material or join two pieces of fabric.
* To understand that it is easier to finish simpler designs to a high standard.
* To know that soft toys are often made by creating appendages separately and then attaching them to the main body.
* To know that small, neat stitches which are pulled taut are important to ensure that the soft toy is strong and holds the stuffing securely.
 | * accurate
* annotate
* appendage
* blanket-stitch
* design criteria
* detail
* evaluation
* fabric
* sew
* shape
* stuffed toy
* stuffing
* template
 | * Designing a stuffed toy considering the main component shapes required and creating an appropriate template.
* Considering the proportions of individual components.
* Creating a 3D stuffed toy from a 2D design.
* Measuring, marking and cutting fabric accurately and independently.
* Creating strong and secure blanket stitches when joining fabric.
* Threading needles independently.
* Using appliqué to attach pieces of fabric decoration.
* Sewing blanket stitch to join fabric.
* Applying blanket stitch so the spaces between the stitches are even and regular.
* Testing and evaluating an end product and giving points for further improvements.
* To create a product that fits the design brief.
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