DT at Eversley

"Anyone who has never made a mistake has never tried anything new."
Albert Einstein.

At Eversley Primary School, our aim is to provide pupils with practical opportunities to develop their creativity and imagination in a variety of contexts. Using examples of past and present designs, children have opportunities to experiment by researching, replicating and building upon ideas to design products which are fit for a purpose. Children are encouraged to make choices by selecting appropriate materials and equipment to use safely and accurately. Continuous reflections are made throughout the process to ensure improvements are made and adapted to ensure a high-quality finish final product which is effective and functional. Our aim is for all children to leave Eversley with the knowledge, skills and passion to apply themselves to progress and achieve their full potential in any aspect of their field of work or day to day life.

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS	<u>The ELGs stated link with DT:</u> Personal, Social and Emotional Development Managing Self ELG (ELG 4) Children at the expected level of development will: - Be confident to try new activities and show independence, resilience and perseverance in the face of challenge; - Explain the reasons for rules, know right from wrong and try to behave accordingly; - <u>Manage their own basic hygiene and personal needs, including dressing, going to the toilet, and understanding the importance of healthy food choices.</u> Physical Development Fine Motor Skills ELG (ELG 7): Children at the expected level of development will: - Hold a pencil effectively in preparation for fluent writing – using the tripod grip in almost all cases; - Use a range of small tools, including scissors, paint brushes and cutlery; - Begin to show accuracy and care when drawing. Expressive Arts and Design Creating with Materials ELG (ELG 16) Children at the expected level of development will: - 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; - Make use of props and materials when role playing characters in narratives and stories. Being Imaginative and Expressive ELG (ELG 17) Children at the expected level of development will: - Invent, adapt and recount narratives and stories with peers and their teacher; - Sing a range of well-known nursery rhymes and songs; - Perform songs, rhymes, poems and stories with others, and –					

	-when appropriate try to move in time with music.					
EYFS	Children to create and construct using a range of resources and junk modelling materials. Children to mark make using **chunky** felt tip pens, pencils, colouring pencils, chalk and paintbrushes.	Children to create and construct using a range of resources and junk modelling materials. Children to mark make using **chunk**y felt tip pens, pencils, colouring pencils, chalk and paintbrushes.	Children to create and construct using a range of resources and junk modelling materials. Children to mark make using felt tip pens, pencils, colouring pencils, chalk and paintbrushes.	Children to create and construct using a range of resources and junk modelling materials. Children to mark make using felt tip pens, pencils, colouring pencils, chalk and paintbrushes.	Children to create and construct independently, following their own interests whilst demonstrating more skills of **precision** through the use of **fine** felt tip pens, pencils, colouring pencils, chalk and paintbrushes.	Children to create and construct independently, following their own interests whilst demonstrating more skills of **precision** through the use of **fine** felt tip pens, pencils, colouring pencils, chalk and paintbrushes. A focus on healthy eating and a healthy, balanced diet by making a healthy snack (fruit salad/kebab); an emphasis on a safety, hygiene and knife
Key Stage 1 National Curriculum	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. When designing and making, pupil should be taught to: • 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. • select from and use a range of tools and equipment to perform practical tasks [e.g., 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 • explore and evaluate a range of existing products • evaluate their ideas and products against design criteria • build structures, exploring how they can be made stronger, stiffer and more stable • explore and use mechanisms [e.g., levers, sliders, wheels and axles] in their products					

Year 1	**Textiles (Puppet)** ✓ Shape textiles using templates. ✓ Join textiles using running stitch. ✓ Colour and decorate textiles using a number of techniques (such as dyeing, adding sequins or printing).	**Materials & Construction** ✓ Cut materials safely using tools provided. ✓ Measure and mark out to the nearest centimetre. ✓ Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling). ✓ Demonstrate a range of joining techniques (such as gluing, hinges or combining materials to strengthen). ✓ Use materials to practise drilling, screwing, gluing and nailing materials to make and strengthen products.	**Food (Healthy Snack)** ✓ Cut, peel or grate ingredients safely and hygienically. ✓ Measure or weigh using measuring cups or electronic scales. Assemble or cook ingredients.
Year 2	**Materials & Construction** ✓ Cut materials safely using tools provided. ✓ Measure and mark out to the nearest centimetre. ✓ Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling). ✓ Demonstrate a range of joining techniques (such as gluing, hinges or combining materials to strengthen). Use materials to practise drilling, screwing, gluing and nailing materials to make and strengthen products.	**Mechanics (Levers focus)** ✓ Create products using levers, wheels and winding mechanisms	**Food** ✓ Cut, peel or grate ingredients safely and hygienically. ✓ Measure or weigh using measuring cups or electronic scales. Assemble or cook ingredients.

<table>
<tr><td>Key Stage 2 National Curriculum</td><td colspan="3">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.
When designing and making, pupils should be taught to:
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
select from and use a wider range of tools and equipment to perform practical tasks [e.g. 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
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
apply their understanding of how to strengthen, stiffen and reinforce more complex structures
understand and use mechanical systems in their products [e.g, gears, pulleys, cams, levers and linkages]
understand and use electrical systems in their products [e.g, series circuits incorporating switches, bulbs, buzzers and motors]
apply their understanding of computing to program, monitor and control their product</td></tr>
<tr><td>Year 3</td><td>Materials & Construction
✓ Cut materials accurately and safely by selecting appropriate tools.
✓ Measure and mark out to the nearest millimetre.
✓ Apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs).
✓ Select appropriate joining techniques.
✓ Choose suitable techniques to construct products or to repair items.
✓ Strengthen materials using suitable techniques.</td><td>Textiles (Aprons)
✓ Understand the need for a seam allowance.
✓ Join textiles with appropriate stitching.
✓ Select the most appropriate techniques to decorate textiles.</td><td>Food (Breads)
✓ Prepare ingredients hygienically using appropriate utensils.
✓ Measure ingredients to the nearest gram accurately.
✓ Follow a recipe.
✓ Assemble or cook ingredients (controlling the temperature of the oven or hob, if cooking).</td></tr>
<tr><td>Year 4</td><td>Mechanics (Pneumatics/Pulleys/Gears)</td><td>Food (Pasta dish)</td><td>Electricals & Electronics
✓ Create series and parallel circuits</td></tr>
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	✓ Use scientific knowledge of the transference of forces to choose appropriate mechanisms for a product (such as winding mechanisms, pneumatics, pulleys and gears)	✓ Prepare ingredients hygienically using appropriate utensils. ✓ Measure ingredients to the nearest gram accurately. ✓ Follow a recipe. ✓ Assemble or cook ingredients (controlling the temperature of the oven or hob, if cooking).	
Year 5	**Textiles (Draft Excluders)** ✓ Create objects that employ a seam allowance. ✓ Join textiles with a combination of stitching techniques (such as back stitch for seams and running stitch to attach decoration). ✓ Use the qualities of materials to create suitable visual and tactile effects in the decoration of textiles.	**Materials & Construction** ✓ Cut materials with precision and refine the finish with appropriate tools (such as sanding wood after cutting or a more precise scissor cut after roughly cutting out a shape). ✓ Show an understanding of the qualities of materials to choose appropriate tools to cut and shape. ✓ Develop a range of practical skills to create products (such as cutting, drilling and screwing, nailing, gluing, filling and sanding).	**Food (Meal Preparation)** ✓ Understand the importance of correct storage and handling of ingredients (using knowledge of micro-organisms). ✓ Measure accurately and calculate ratios of ingredients to scale up or down from a recipe. ✓ Demonstrate a range of baking and cooking techniques. ✓ Create and refine recipes, including ingredients, methods, cooking times and temperatures.
Year 6	**Mechanics (CAMs)** ✓ Convert rotary motion to linear using cams. ✓ Use innovative combinations to create product designs.	**Food (Empanadas)** ✓ Understand the importance of correct storage and handling of ingredients (using knowledge of micro-organisms). ✓ Measure accurately and calculate ratios of ingredients to scale up or down from a recipe. ✓ Demonstrate a range of baking and cooking techniques. ✓ Create and refine recipes, including ingredients, methods, cooking times and temperatures.	**Electricals & Electronics (Alarmed Vehicles)** ✓ Create circuits using electronics that employ a number of components (such as LEDs, resistors, transistors and chips)