

Key Skills

Develop creative, technical and practical expertise to problem solve.

Design and make high quality prototypes and products for a range of users.

Critique, evaluate and test ideas and products.

Pensans Primary School

DT Skills should be taught when linked to projects where ever possible to ensure real world application.



DT

	Pre-School	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Design	<p>Begin to draw a design of their own</p> <p>Use materials to create a picture of their design</p> <p>Talk about what they are doing during each stage</p>	<p>Make pictures of their design saying what they want to make</p> <p>Use criteria to design and make purposeful, functional items</p> <p>Create a prototype and critique and redraft product</p>	<p>Design and make purposeful and functional products</p> <p>Use pictures and words to convey what they want to design and make</p> <p>Describe and explain what they are making, how it works and what they need to do next</p>	<p>Design and make purposeful, functional and appealing products for themselves and other users based on design criteria.</p> <p>Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and ICT.</p> <p>Discuss their work as it progresses</p>	<p>Use research to develop the design of functional and appealing products</p> <p>Record plan by drawing labelled sketches or writing and discuss this while working</p>	<p>Use research and develop design criteria to inform the design of functional and appealing products that are fit for purpose</p> <p>Consider different ways in which they can creatively record their planning to engage an audience</p>	<p>Use research and develop design criteria to inform the design of innovative, functional and appealing products that are fit for purpose and aimed at particular groups or individuals</p> <p>Develop and communicate design ideas using annotated sketches, detailed plans, oral and digital presentations</p>	<p>Use research and exploration to identify and understand user needs when designing a product</p> <p>Generate, develop, model and communicate design ideas using discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes detailed plans, oral and digital presentations and computer based tools</p>

Pensans Primary School



DT Skills should be taught when linked to projects
where ever possible to ensure real world application.

	Pre-School	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Make	<p>Use and explore a variety of materials</p> <p>Use a variety of tools and techniques</p>	<p>Use equipment safely</p> <p>Use the correct tools for the job</p> <p>Know the tools they are using</p>	<p>Name the tools you are using</p> <p>Explore ideas by rearranging materials e.g. paper, card, ingredients, fabrics, sequins, buttons, tubes, dowel, cotton reels, paper, card, mouldable materials</p> <p>Use given tools for a variety of tasks e.g. Knife, grater, chopping board, scissors, needles, pins, scissors, templates, glue, tape</p> <p>Join appropriately for different materials and situations</p>	<p>Select from, name and use a range of tools and equipment to perform practical tasks (Eg, cutting, shaping, joining and finishing)</p> <p>Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</p>	<p>Think ahead about the order of their work and plan tools and materials needed. E.g. Weighing scales, glue gun, ruler</p> <p>Consider working characteristics of materials</p>	<p>Use tools and equipment, including those needed to weigh and measure ingredients, with accuracy</p> <p>Join and combine a range of materials, some with temporary, fixed or moving joints</p>	<p>Select and use tools and equipment for a range of uses. E.g. cut and shape ingredients, join fabrics, cut accurately and safely, use bradawl to mark holes, hand drill and pin and tacks during textile work</p> <p>Join and combine a range of materials and ingredients using appropriate methods. E.g. beating, rubbing in, drilling, gluing, sewing, screwing</p>	<p>Select from and use specialist tools and techniques for a range of uses. E.g. Whisk, craft knife, cutting mat, safety ruler</p> <p>Select from and use a wider range of materials, components and ingredients taking into account their aesthetic properties</p>

Pensans Primary School



DT Skills should be taught when linked to projects
where ever possible to ensure real world application.

	Pre-School	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Evaluate	<p>Represent their own ideas through their work</p> <p>Talks about their creation and how they got to the finished product</p>	<p>Say what they like and dislike about products that are already know</p> <p>Begin to say how they could improve a product offering own ideas</p>	<p>Explore existing products</p> <p>Say what they like and do not like about products they have made</p> <p>Consider and explain how the finished product could be improved</p>	<p>Explore and evaluate existing products</p> <p>Talk about their developing designs and identify good points and areas to improve throughout the design process</p> <p>Evaluate their ideas and products against a design criteria</p>	<p>Investigate and analyse a range of existing products</p> <p>Identify strengths and areas to improve in their own design</p> <p>Identify what does and does not work in the product</p>	<p>Use investigations of existing products to inform planning of their own product</p> <p>Check their work as it develops and modify approach in light of progress</p> <p>Discuss how well their product meets the design criteria and the needs of the user</p>	<p>Show a clear understanding of the specification and use this to inform decisions</p> <p>Justify decisions about materials and methods of construction</p> <p>Evaluate products and use of information sources</p>	<p>Test, evaluate and refine ideas and products against a specification</p> <p>Justify decisions made during the design process</p> <p>Evaluate products and use of information sources throughout the process and use this to inform planning</p>
Technical knowledge	<p>Build using a variety of materials</p> <p>Begin to say how they made their structure</p>	<p>Build structures using different materials</p> <p>Begin to make suggestions to make structures stronger and more stable</p> <p>Begin to explore mechanisms such as levers, wheels and axels</p>	<p>Build structures and investigate how they can be made more stable</p> <p>Insert paper fasteners for card linkages</p> <p>Create models with wheels and axels</p>	<p>Build structures and investigate how they can be made stronger, stiffer and more stable</p> <p>Use a range of materials to create models with wheels, axels or hinges</p> <p>Explore and use mechanisms: temporary, fixed and moving joints (levers, sliders)</p>	<p>Join and combine materials with temporary, fixed or moving joints</p> <p>Create shell or frame structures and make structures more stable</p> <p>Understand and use electrical systems in their products: a circuit with a bulb or buzzer in a model</p>	<p>Create prototypes of shell or frame structures to inform design process</p> <p>Strengthen frames with diagonal struts</p> <p>Use lolly sticks/card to make levers and linkages</p>	<p>Use linkages to make movement larger or more varied</p> <p>Build frameworks using a range of materials e.g. wood, corrugated card, plastic to support mechanisms</p> <p>Understand and use electrical systems in their products: Incorporate motor and a switch into a model</p>	<p>Control a model using an ICT control programme</p> <p>Build complex frameworks using a range of materials to support mechanisms</p> <p>Understand and use electrical systems in their products: Use a CAM to make an up and down mechanism</p>

Pensans Primary School



DT Skills should be taught when linked to projects
where ever possible to ensure real world application.

	Throughout: understand how key events and individuals in design and technology have helped shape the world.							
Cooking & nutrition	Name and identify everyday fruit and vegetables.	Understand the importance of breakfast and The need to have a mixture of different food types.	Use a range of basic cooking equipment (eg knife, chopping board, spoon, fork, bowl) Design, make and evaluate (discuss what they likes/didn't like) about a dish of their choice.	Use the basic principles of a healthy and varied diet to prepare dishes. Understand where food comes from.	Understand how different ingredients are produced. Name and identify some seasonal ingredients. Prepare a simple dish safely and hygienically.	Understand and apply the principles of a healthy and varied diet. Understand food group proportions. Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. Prepare a simple dish safely and hygienically.	Develop food preparation skills (including bridge hold and claw grip, Prepare a dish safely and hygienically.	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.

Blue text signifies statutory requirement.

