

Design & Technology Subject Policy

School Intent

At The John Harrox Primary School, our curriculum is designed to ensure children have a love for learning and a thirst for knowledge. It recognises children's prior learning, providing first hand learning experiences, allowing the children to develop interpersonal skills, build resilience and become creative, critical thinkers. Children's learning is viewed as a sequence, building blocks of knowledge overtime to achieve a bigger picture; cumulative knowledge is developed over time. Every child is recognised as a unique individual. We celebrate and welcome differences within our school community. The ability to learn is underpinned by the teaching of basic skills, knowledge, concepts and values. We constantly provide enhancement opportunities to engage learning and believe that childhood should be a happy, investigative and enquiring time in our lives where there are no limits to curiosity and there is a keen desire for new experiences and knowledge.

We promote 4 key outlooks on our world which include:

A Global Outlook

An Enterprising Outlook

A Creative Outlook

A Healthy Outlook

Each topic that is taught takes one outlook as a focus, ensuring a balanced coverage.

Intent	Implementation	Impact
<p>At John Harrox Primary School we believe that high quality, structured Design and Technology lessons will inspire children to develop a love of this inspiring, rigorous and practical subject, to increase their self- confidence, creativity and imagination. As the pupils progress they will design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. This is embedded in one of our four key outlooks, the Enterprising outlook.</p> <p>Through a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art, pupils will learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens.</p>	<p>Time allocation KS1- 40 mins every week for 3 half terms KS2- 1 hr every week for 3 half terms or equivalent</p> <p><u>Planning</u> Our D & T curriculum is based on '@projects on a page' created by the D & T association.</p> <p>Teacher's plan and adapt these plans whilst following the progression of skills and knowledge that it outlines.</p> <ul style="list-style-type: none"> • The two year Long Term Curriculum Map (A/B) for each phase shows which aspect of D&T is being taught and when. • D&T Curriculum Map shows coverage across the whole school in each area (Mechanisms/ mechanical systems, textiles, structures, food and electrical systems). • D&T Progression Map shows the skills in each area of D & T across the school. • Subject Specific Vocabulary has been referenced. 	<p><u>Expected Outcomes</u> Our D&T Curriculum is high quality, well thought out and is planned to demonstrate progression. If children are following the progression within the curriculum, they are deemed to be making good progress. In addition, we measure the impact of our curriculum through the following methods:</p> <p><u>Assessment and Record Keeping</u></p> <ul style="list-style-type: none"> • Formative ongoing assessment by the class teacher to include marking of work, observation and discussion with the child. • <p><u>Monitoring, Evaluation & review</u> This policy should be reviewed by all staff and governors on a regular basis. To ensure that this policy is in practice, and to help teachers</p>

<p>Through the evaluation of past and present design and technology, children will develop a critical understanding of its impact on daily life and the wider world.</p> <p>High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.</p> <p>Our Design and Technology curriculum provides the children with the opportunity to develop their skills using a range of projects to solve problems.</p> <p>The children will build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users.</p> <p>Children will learn the skills to be confident at critique, evaluate and test their ideas and products and the work of others.</p> <p>Children will understand and apply the principles of nutrition and learn how to cook.</p> <p><u>National Curriculum:</u> We deliver the subject content as outlined in the Early Years Framework and the National Curriculum.</p> <p><u>Early Years Foundation Stage</u> Expressive arts and design involves enabling children to explore and play with a wide range of media and materials, as well as providing opportunities and encouragement for sharing their thoughts, ideas and feelings through a variety of</p>	<p>As part of the planning process teachers use these resources to support them in;</p> <ul style="list-style-type: none"> • Planning a sequence of lessons (including vocabulary) becoming the building blocks of knowledge over time. • Challenge questions for children to apply their learning, reflect, and evaluate their work. • Trips and/or visiting experts will enhance the learning experience <p><u>Teaching and Learning</u></p> <p><u>The teaching sequence is outlined within the 'Projects on a page' planning (as follows)</u></p> <p><u>Aspect of D&T and Focus</u> - this clearly states what aspect of D&T is being covered and the focus for children's learning according to their age.</p> <p><u>Key learning in D&T</u> - this states what children should have previously learnt, then summarises the key learning within designing, making, evaluating and technical knowledge and understanding, including what is covered in the programmes of study. This can be adapted if prior learning has been missed or if more challenge is required to move children's learning on.</p> <p><u>What could children design and make?</u> This is where a range of products is selected from a suggested list.</p> <p><u>Intended users</u> -the intended user or users for the products is selected from a given list.</p> <p><u>Purpose of products</u> - select a purpose for the products from the list or suggest an alternative.</p>	<p>Keep track of their own work and needs for support or training, the D&T co-ordinator keeps an updated record of developments and monitors progress within this curriculum area.</p> <p>This policy will be reviewed in 2022. Evaluation of the policy and practice will take place annually.</p>
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<p>activities in art, music, movement, dance, role-play, and design and technology.</p> <p><u>Key Stage 1 should be taught to:</u></p> <p>When designing and making, pupils should be taught to:</p> <p>Design</p> <ul style="list-style-type: none"> • To design purposeful, functional, appealing products for themselves and other users based on design criteria • To generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology <p>Make</p> <ul style="list-style-type: none"> • To select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing] • To select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics <p>Evaluate</p> <ul style="list-style-type: none"> • To explore and evaluate a range of existing products • To evaluate their ideas and products against design criteria <p>Technical knowledge</p> <ul style="list-style-type: none"> • To build structures, exploring how they can be made stronger, stiffer and more stable • To explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products. <p><u>Key Stage 2 should be taught to:</u></p>	<p><u>Links to topics and themes</u> - when selecting what children might design and make, links can be made to themes or topics to make the context relevant.</p> <p><u>Possible contexts</u> - select the broader context or contexts that children will work in when carrying out the project.</p> <p><u>Project title</u> - on the basis of all the above, decide upon and complete the title for the project.</p> <p><u>Investigate & Evaluate Activities (IEAs)</u></p> <p><u>Focused Tasks (FTs)</u></p> <p><u>Design, Make, Evaluate</u></p> <p><u>Related activities in other subjects</u> - you make selections from the list of possibilities or suggest your own.</p> <p><u>Possible resources</u> - these are possible resources for the project, not a definitive list.</p> <p><u>Key vocabulary</u> - this is a list of the key technical vocabulary, not a complete list.</p> <p><u>Key competencies</u> - select from those which children are likely to develop through the project.</p> <p><u>Health and safety</u> - a general reminder about risk assessment and health and safety.</p> <p><u>Overall potential of project</u> - here you rate the project prior to carrying it out to ensure that each of the D&T essentials has been adequately addressed.</p> <p><u>Recording of work</u></p>	
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<p>When designing and making, pupils should be taught to:</p> <p>Design</p> <ul style="list-style-type: none"> • 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 • To generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design <p>Make</p> <ul style="list-style-type: none"> • To select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately • To 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 <p>Evaluate</p> <ul style="list-style-type: none"> • To investigate and analyse a range of existing products • To evaluate their ideas and products against their own design criteria and consider the views of others to improve their work • To understand how key events and individuals in design and technology have helped shape the world <p>Technical knowledge</p> <ul style="list-style-type: none"> • To apply their understanding of how to strengthen, stiffen and reinforce more complex structures 	<p><u>In EYFS, work is recorded using a floorbook with annotated photographs and teacher observations.</u></p> <p>In KS1 and KS2, written work, plans, designs and evaluations are collated in a folder. Prototypes are either saved with this work or photographed.</p> <p>Any Computer based work is saved as a file or printed to be attached to other paper based work.</p> <p><u>Resourcing</u></p> <p>Class teachers order materials to support the objectives and activities which they have planned to deliver, this is overseen by the D&T co-ordinator.</p> <p><u>Equal Opportunities & Inclusion</u></p> <p>D&T is a fundamental part of our curriculum where all children are encouraged to develop a love and passion of D&T and achieve their full potential. It is available to every child and all children take part in creative activities; making a positive contribution to the life of the school and local community.</p> <p>Activities both within and outside the classroom are planned in a way that encourages full and active participation by all children, matched to their knowledge, understanding and previous experience.</p> <p>Children have equal opportunities to develop their understanding and enjoyment of D&T regardless of race, gender and ability.</p> <p>Teaching children with Special Educational Needs requires thought and staff considers this when planning lessons, providing support and/or differentiated activities as necessary.</p> <p><u>Enrichment</u></p>	
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<ul style="list-style-type: none"> • To understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages] • To understand and use electrical systems in their products [for example, series circuits incorporating switches, bulbs, buzzers and motors] • To apply their understanding of computing to program, monitor and control their products. 	<p>One of our four key drivers is the Enterprising Outlook.</p> <p>Enterprising Outlook</p> <p>Our D&T curriculum aims to ensure that pupils can develop creativity and entrepreneurial skills, applying these towards problems and finding solutions. These key outlooks may encompass, but are not restricted to:</p> <ul style="list-style-type: none"> • Planning creative lessons. • Planning activities where pupils work collectively or in teams • Using open-ended tasks/investigations to develop organisational skills and creativity. • Setting homework based on D&T that allows pupils to show creativity and entrepreneurial skills. • Share D&T news to create a wonder and interest within the subject. • Having engineers visit the school. <p><u>Health and Safety</u></p> <p>The safe use of equipment and consideration of others is promoted at all times. The school's "Health and Safety Policy" should be consulted for details regarding scissors, craft tools, electrical equipment, wet areas, heavy equipment and use of other tools. When planning activities, safety issues should be identified in detail in the weekly plans and acted upon accordingly. Children should be made aware of safety issues and, where appropriate, the reasons behind them. Activities which take place away from the school's premises will require a separate risk assessment form to be filled in.</p>	
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