

KS2 D&T Curriculum Intent 2021-2022

<i>Inspiring a love of learning in creative, confident and collaborative leaders of tomorrow.</i>		
Intent	Implementation	Impact
The School's Senior Leadership Team will:	The Teaching and Learning Sequence will:	Pupil Voice will show:
<p>It is the intent of LJS D&T to be taught in all year groups through at least one topic per term, which includes one topic relating to food. Design Technology projects are often made cross curricular - linking to other subjects taught.</p> <p>Key objectives of intent within the Design Technology Curriculum based on the National Curriculum guidance :</p> <ul style="list-style-type: none"> ● Products are to be made for a purpose. ● Individuality should be ensured in children's design and construction of products. ● Delivery of the two strands: Designing and Making and Cooking and Nutrition. ● More emphasis to be given on creating 'innovative' products in KS2. ● Teaching the importance of making on-going changes and improvements during making stages. ● Looking into seasonality of ingredients and how they are grown, caught or reared. ● The introduction of computing and coding of products in KS2. ● Researching key events and individual designers in the History of Technology in KS2. <p>Aims</p> <ul style="list-style-type: none"> ● The national curriculum for Design and Technology aims to ensure that all pupils: ● develop the creative, technical and practical expertise need to perform everyday tasks confidently and to participate successfully in an increasingly technological world. ● 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 ● critique, evaluate and test their ideas and products and the work of others ● understand and apply the principles of nutrition and learn how to cook. 	<p>The teaching of Design Technology across the school follows the National Curriculum. Children design products with a purpose in mind and an intended user of the products. Food technology is implemented across the school with children developing an understanding of where food comes from, the importance of a varied and healthy diet and how to prepare this.</p> <p>Design and technology is a crucial part of school life and learning and it is for this reason that as a school we are dedicated to the teaching and delivery of a high quality Design and Technology curriculum; through well planned and resourced projects and experiences.</p> <p>Design and Technology also embeds our learning behaviours. It is an inspiring, rigorous and practical subject, requiring creativity, resourcefulness, and imagination. Pupils design and make products that solve real and relevant problems within a variety of contexts. It is very cross - curricular and draws upon subject knowledge and skills within Mathematics, Science, History, Computing and Art. Children learn to take risks, be reflective, innovative, enterprising and resilient. Through the evaluation of past and present technology they can reflect upon the impact of Design Technology on everyday life and the wider world.</p> <p>In Key Stage 2:</p> <p>Within key stage 2 key events and individuals that have influenced the world of Design Technology are teaching focuses that are to be covered.</p> <p>The use of computer programmes and applications are also a key focus to be utilised by children in their design of their products.</p> <p>National Curriculum requirements at Key Stage 2</p> <p>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,</p>	<p>What will this look like? By the time children leave our school they will:</p> <ul style="list-style-type: none"> ● An excellent attitude to learning and independent working. ● The ability to use time efficiently and work constructively and productively with others. ● The ability to carry out thorough research, show initiative and ask questions to develop an exceptionally detailed knowledge of users' needs. ● The ability to act as responsible designers and makers, working ethically, using finite materials carefully and working safely. ● A thorough knowledge of which tools, equipment and materials to use to make their products. ● The ability to apply mathematical knowledge and skills accurately. ● The ability to manage risks exceptionally well to manufacture products safely and hygienically. ● A passion for the subject. <p>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. This assessment is then used to inform differentiation, support and challenge required by the children.</p> <p>Summative assessment is conducted termly by class teachers across each year group of the school to inform the subject leader of progress or skills and knowledge still to be embedded.</p> <p>Design Technology is also monitored by the subject leader throughout the year in the form of book monitoring, looking at outcomes and pupil interviews to discuss their learning and understanding and establish the impact of the teaching taking place.</p>

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, such as 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 as gears, pulleys, cams, levers and linkages)
- 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 programme, monitor and control their products.

National Curriculum requirements for food and nutrition at KS2

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.

	<p>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.</p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> • 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 • to understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed. 	
As a Subject Leader I will:	The Classroom will:	Displays and Books will show:
<p>As D&T Lead I am:</p> <ul style="list-style-type: none"> • able to plan and deliver the D&T National Curriculum • aware of application of D&T in other subjects • able to lead on D&T development planning • able to manage and coordinate staff in their delivery and use of D&T • able to advise on effective professional use of D&T • aware of the range of hardware and software required (and know where to seek further advice) • Monitor the progress of design and technology throughout the school. • Monitor, stock take, organise and order the design and technology resources required across the school • Monitor the portfolios of evidence of DT work in each year group. • Add to and update the design technology page of the school website. • explore opportunities for outside agency partnerships and experiences • explore opportunities for staff CPD. <p>There are four key areas that I am responsible for in my role:</p> <ul style="list-style-type: none"> • Planning the strategic direction and development of D&T • Leading learning and teaching in D&T, sharing my expertise • Leading and managing staff, supporting them when needed • Managing the efficient deployment of staff and resources in D&T <p>In this folder, I will achieve these aims through a process of:</p>	<ul style="list-style-type: none"> -Provide a safe and stimulating atmosphere where children want to learn more - Have developed working walls which includes high quality anchor charts which include key methods and strategies and carefully chosen vocabulary - Provide appropriate quality resources for each area of the curriculum - Have table tops displays with subject specific books/interactive questions for children to answer -Be organised so that children can work in small groups or whole class as appropriate to support children in their development of their skills -Contain appropriate key words displayed to support children's spoken language. <ul style="list-style-type: none"> • Use creativity and imagination: • To design and make products: • Solve real and relevant problems within a variety of contexts: • Considering their own and others' needs, wants and values: • develop the creative, technical and practical expertise needed to perform everyday tasks confidently • Critique, evaluate and test their ideas and products and the work of others 	<ul style="list-style-type: none"> - Displays support and 'capture' learning - Children have had the opportunity to practice and refine their skills - Pieces of work that show the skills learned - A clear learning journey which demonstrates progression of knowledge and skills that over time, all areas of the mathematics curriculum is covered. - Differentiated work for all children to be able to access the learning - That planned activities are pitched at the right level

<ul style="list-style-type: none"> • Monitor > Audit > Review/ Reflect > Action Plan > Implement <p>GDS: Develop a framework in which the recognition and nurturing of talent can take place.</p> <ul style="list-style-type: none"> • Teaching colleagues and support staff may need guidance in recognising children with D&T talent, and in developing appropriate skills and knowledge of specific resources to support them. • Make sure all pupils are offered opportunities to gain ownership of 'design and make' activities; this allows more able pupils to develop their particular talents; e.g. introducing more challenging design briefs that require more complex or creative thinking, or extension activities that develop skills at a more advanced level than those of their peers. • Planning support for these pupils can often benefit the whole class, through the exchange of ideas and in providing an atmosphere in which creative D&T can take place. • The government's concern for personalised learning encourages us to think of children as individuals with high potential and recognised talents, and thus to develop an ethos in which creative achievement is recognised and celebrated. This can reflect upon the whole school, as parents and the local community recognise the high quality of work achieved. • Raising a pupil's confidence and esteem in one subject area can stimulate their motivation and achievements in other subject areas too. 		
<p>The Class Teacher will, with support from myself:</p>		
<p>-Plan and resource specific learning for their class, thinking about the end point and the needs of the children in their class</p> <p>- Ensure our children have access to a high quality maths curriculum that is both challenging and enjoyable.</p> <p>-Seek support/advise for any particular subject knowledge and skills gaps prior to teaching the unit</p> <p>Provide our children with a variety of mathematical opportunities, which will enable them to make the connections needed to achieve greater depth in learning</p>		