



Design and Technology at Lower Heath CE Primary School

Intent	
<p>Our D&T philosophy is...</p>	<p>Our Design and technology (D&T) scheme of work (Kapow) aims to inspire pupils to be innovative and creative thinkers who have an appreciation for the product design cycle through ideation, creation, and evaluation that is relevant to our rapidly changing world. We want pupils to develop the confidence to take risks, through drafting design concepts, modelling, and testing and to be reflective learners who evaluate their work and the work of others.</p> <p>Through our scheme of work, we aim to build an awareness of the impact of design and technology on our lives and encourage pupils to become resourceful, enterprising citizens who will have the skills to contribute to future design advancements. Our D&T scheme of work enables pupils to meet the end of key stage attainment targets in the National curriculum and the aims also align with those in the National curriculum. EYFS (Reception) units provide opportunities for pupils to work towards the Development matters statements and the Early Learning Goals. Children will be exposed to a wide range of media including textiles, food and woodwork; through this, children will develop their skills, vocabulary and resilience.</p>
Implementation	
<p>The curriculum for this subject area is designed using...</p>	<p>The D&T National Curriculum outlines the three main stages of the design process: design, make and evaluate. Each stage of the design process is underpinned by technical knowledge which encompasses the contextual, historical, and technical understanding required for each strand. Cooking and nutrition has a separate section, with a focus on specific principles, skills and techniques in food, including where food comes from, diet and seasonality.</p> <p>Lessons are timetabled to be delivered during a half-term with three units covered every academic year. As healthy eating is a high priority, two food and nutrition units are covered during the two-year rolling programme.</p>
<p>Curriculum coverage in this area is progressive. We ensure this by...</p>	<p>The National curriculum organises the Design and technology attainment targets under five subheadings or strands:</p> <ul style="list-style-type: none"> • Design • Make • Evaluate • Technical knowledge • Cooking and nutrition <p>Kapow Primary's Design and technology scheme has a clear progression of skills and knowledge within these five strands across each phase.</p> <p>Our school specific National Curriculum mapping shows which of our units cover each of the National Curriculum attainment targets as well as each of the five strands.</p> <p>Our Progression of skills shows the skills and knowledge that are taught within each year group and how these skills develop to ensure that</p>

	<p>attainment targets are securely met by the end of each key stage. Through Kapow Primary’s Design and technology scheme, pupils respond to design briefs and scenarios that require consideration of the needs of others, developing their skills in six key areas:</p> <ul style="list-style-type: none"> • Mechanisms • Structures • Textiles • Food • Electrical systems (KS2) and • Digital world (KS2) <p>Each of our key areas follows the design process (design, make and evaluate) and has a particular theme and focus from the technical knowledge or cooking and nutrition section of the curriculum.</p> <p>Knowledge organisers for each unit support pupils in building a foundation of factual knowledge by encouraging recall of key facts and vocabulary.</p>
<p>If a topic is repeated in various year groups, we ensure that learning builds on prior knowledge by...</p>	<p>The Kapow Primary scheme is a spiral curriculum, with key areas revisited again and again with increasing complexity, allowing pupils to revisit and build on their previous learning.</p> <p>The D&T Progression Framework outlines the skills, vocabulary and materials to be built upon by each year group. This enables learning to be progressive and ensures that children consistently learn new skills appropriate to their ability and potential.</p>
<p>This subject links with the rest of our curriculum by...</p>	<p>Our school specific National Curriculum mapping document shows the links with other curriculum areas.</p> <p>Examples of links include reading - following recipes; maths - using nets to created 3D shapes; PSHE - finding ways to be mindful. D&T enables children to use each of these skills and knowledge in a meaningful way.</p>
<p>Different year groups, and different abilities within a class, are catered for by...</p>	<p>Lessons incorporate a range of teaching strategies from independent tasks, paired and group work including practical hands-on, computer-based and inventive tasks. This variety means that lessons are engaging and appeal to those with a variety of learning styles.</p> <p>Differentiated guidance is available for every lesson to ensure that lessons can be accessed by all pupils and opportunities to stretch pupils’ learning are available when required. By following the D&T Progression Framework, it is possible to ensure that different abilities and age groups are catered for.</p>
<p>Trips, visits and the local community support this subject by...</p>	<p>Trips to places such as Techniquest and local farms ensure that children have access to up-to-date relevant technology, information and equipment. Local catering businesses also provide knowledge and support to develop the children’s learning in a ‘real life’ context.</p>
<p>The subject is monitored by...</p>	<p>The impact of Kapow Primary’s scheme can be constantly monitored through both formative and summative assessment opportunities. Each lesson includes guidance to support teachers in assessing pupils against the learning objectives. Furthermore, each unit has a unit quiz and knowledge catcher which can be used at the start and/ or end of the unit.</p> <p>After the implementation of Kapow Primary D&T, pupils should leave school equipped with a range of skills to enable them to succeed in their secondary education and be innovative and resourceful members of society.</p>

The subject is assessed by...	Assessment takes place through teacher assessment, and children are closely measured against the outcomes expected from each unit, as at/above/below the expected standard.
Staff development in this subject includes...	<p>Strong subject knowledge is vital for staff to be able to deliver a highly effective and robust D&T curriculum. Each unit of Kapow lessons includes multiple teacher videos to develop subject knowledge and support ongoing CPD. Kapow Primary has been created with the understanding that many teachers do not feel confident delivering the full D&T curriculum and every effort has been made to ensure that they feel supported to deliver lessons of a high standard that ensure pupil progression.</p> <p>Curious Curriculum and National College training has been completed by subject leaders and shared with other staff through a rolling programme of staff meeting sessions.</p>
Impact	
In D&T books, you will see...	Children record their ideas, plans, photographs, drawings, findings, prototypes and evaluations within their D&T booklets created for each unit of work.
What is the impact of our D&T curriculum?	<p>The expected impact of following the Kapow Primary D&T scheme of work is that pupils at Lower Heath will:</p> <ul style="list-style-type: none"> → Understand the functional and aesthetic properties of a range of materials and resources. → Understand how to use and combine tools to carry out different processes for shaping, decorating, and manufacturing products. → Build and apply a repertoire of skills, knowledge and understanding to produce high quality, innovative outcomes, including models, prototypes, CAD, and products to fulfil the needs of users, clients, and scenarios. → Understand and apply the principles of healthy eating, diets, and recipes, including key processes, food groups and cooking equipment. → Have an appreciation for key individuals, inventions, and events in history and of today that impact our world. → Recognise where our decisions can impact the wider world in terms of community, social and environmental issues. → Self-evaluate and reflect on learning at different stages and identify areas to improve. → Meet the end of key stage expectations outlined in the National curriculum for Design and technology. → Meet the end of key stage expectations outlined in the National curriculum for Computing.