**INTENT**

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| **Purpose of Study** |
| At Roby Park Primary we are dedicated to creating and delivering an exciting and engaging design and technology curriculum, which is essentially providing pupils with the widest range of opportunities possible.  Design & Technology is a fundamental subject, which educates students in how to analyse and solve problems, produce high quality solutions and learn how to convert their ideas into working products. |
| **Intent from Subject** |
| The curriculum at Roby Park is designed to provide a broad and balanced education that meets the needs of all children. It provides opportunities for children to develop as independent, confident and successful learners, with high aspirations, who know how to make a positive contribution to their community and the wider society. The curriculum ensures that academic success, creativity and problem solving, reliability, responsibility and resilience, as well as physical development, well-being and mental health are key elements that support the development of the whole child and promote a positive attitude to learning. The curriculum celebrates the diversity and utilises the skills, knowledge and cultural wealth of the community while supporting the children’s spiritual, moral, social and cultural development, ensuring that children are well prepared for life in modern Britain.  Design and Technology is an inspiring, rigorous and practical subject. Design and Technology encourages children to learn to think and intervene creatively to solve problems both as individuals and as members of a team. At Roby Park, we encourage children to use their creativity and imagination, to design and make products that solve real and relevant problems within a variety of contexts, considering their own and others’ needs, wants and values. We aim to, wherever possible, link work to other disciplines such as mathematics, science, engineering, computing and art. The children are also given opportunities to reflect upon and evaluate past and present design technology, its uses and its effectiveness and are encouraged to become innovators and risk-takers.  At Roby Park Primary, we intend that children should master Design and Technology to such an extent that they can go on to have careers within Design and Technology and make use of Design and Technology effectively in their everyday lives. Our children will be taught Design and Technology in a way that ensures progression of skills, and follows a sequence to build on previous learning. Our children will gain experience and skills of a wide range of formal elements of design and concepts of technology in a way that will enhance their learning opportunities, enabling them to use design and technology across a range of subjects to be creative and solve problems, ensuring they make progress. |
| **Aims from National Curriculum** |
| The national curriculum for design and technology aims to ensure that all pupils:   * Develop the creative, technical and practical expertise needed 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. |

**IMPLEMENTATION**

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| **Teaching & Learning** |
| **Organisation and Curriculum Coverage**  At Roby Park Primary, we follow a broad and balanced Design and Technology curriculum that builds on previous learning and provides both support and challenge for learners. We employ a Design and Technology scheme (Kapow Primary) that ensures progression of skills and covers all aspects of the Design and Technology curriculum.  Design and Technology is taught discretely, whilst employing meaningful links to other subject areas. It is taught as part of a half termly topic, alternating with Art and Design. All classes will have a scheduled Design and Technology lesson each week of the first half of each term.  Children’s work and pictures of their work will be stored on Seesaw for reference and assessment.  We want to ensure that Design and Technology is embedded in our whole school curriculum and that opportunities for enhancing learning, by using design and technology, are always taken.  Through a variety of creative and practical activities, we teach the knowledge, understanding and skills needed to engage in a process of designing and making. The children work in a range of relevant contexts (for example home, school, leisure, culture, enterprise, industry and the wider environment).  When designing and making, the children are 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 diagrams, prototypes, pattern pieces and computer-aided design   **Make**   * Select from and use a wider range of tools and equipment to perform practical tasks (for example, 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 * Understand and use electrical systems in their products * Apply their understanding of computing to program, monitor and control their products   Key skills and key knowledge for Design and Technology have been mapped across the school to ensure progression between year groups, using our curriculum tool from Kapow. This also ensures that there is a context for the children’s work in Design and Technology; that they learn about real life structures and the purpose of specific examples, as well as developing their skills throughout the programme of study.  **EYFS**  The EYFS staff team will plan for children to experience creative opportunities and develop  art skills within the EYFS curriculum. Nursery and Reception classes will be included in whole school projects, workshops, events and competitions, where appropriate.  **Resources**  On-line DT plans and resources, produced by Kapow, are available online and also on the shared drive. All resources bespoke to year groups are in class stock cupboards, in DT boxes. Any materials shared between year groups are stored in the stock cupboard by the Community room.  Children are taught to use tools and equipment in a sensible, safe and efficient manner.  It is the responsibility of the class teacher to ensure they pack away all resources in the relevant class topic box for the subject at the end of each half term and to ensure all resources, artefacts and books are well looked after in class. All communal resources should be returned to their homes so all staff can access them.  **Displays**  Every class will display a half termly A3 size organiser along with key vocabulary in their classroom. Examples of processes and end products will also be displayed.  Whole school DT displays will be produced in communal areas around the school, lead by the DT subject lead.  **Knowledge Organisers**  Knowledge organisers should be stuck in at the beginning of each half term, before the topic begins. Knowledge organisers are used to aid learning throughout the learning process.  **Home Learning**  DT home learning opportunities will be set through half termly Humanities ‘Thinking Homework’ projects where children can select from 9 different tasks including DT focused tasks.  **Planning**  All planning should be readily available in planning folders. DT Kapow plans should be dated, printed and annotated, planning specifically for pupils in the class. Annotations should include evaluations of lessons to inform assessment.  Smart Notebook slides should be used alongside Kapow teaching videos and resources to ensure high quality delivery.  Plans should be available from the beginning of the week, should anyone need to take your class. |
| **Cross Curricular Links** |
| High quality Design and Technology provision intrinsically links to and enhances other areas of learning. Measuring accurately is a key Design and Technology skill and allows children to apply and consolidate their mathematical understanding. With regards to English, pupils can apply their instructional writing skills in the planning process of their Design and Technology work, as well as developing their speaking and listening skills when communicating their ideas to others. An understanding of Science, in particular forces, is essential when creating mechanisms (pulley, wheels, axles levers and linkages). Pupils will make links with Art and Design throughout the Design and Technology sessions. The ability to visually express their ideas accurately is an artistic skill. It enables children to develop their ideas, plan their project and communicate the project to others. The curriculum also requires the pupil to use their computing knowledge and skills within their design technology- providing them with real life opportunities to put their skills to practical use. Links to History and Geography topics are identified on the D&T long term plan. |
| **Inclusion** |
| All children will be supported through differentiation, adaptation or adult support, to enable equal access to learning in Design and Technology. |
| **Equal Opportunities** |
| Whole school policy on equal opportunities will be adhered to in Design and Technology activities. Teachers ensure that children have access to the range of Design and Technology activities and use opportunities within Design and Technology to challenge stereotypes.  Children are encouraged and supported to develop their Design and Technology capability using a range of materials. Children with special needs or disabilities will be differentiated for and supported appropriately, to ensure development of skills and equal access to the Design and Technology curriculum. |
| **British Values** |
| Collaborative work in design and technology develops mutual respect for the differing opinions, beliefs and abilities of others. In addition, children develop a respect for the environment, for their own health and safety and that of others. They learn to appreciate the value of similarities and differences and learn to show tolerance. A variety of experiences teaches them to appreciate that all people – and their views – are equally important. Children are encouraged to work in a democratic way, exercising the ‘give and take’ required for successful teamwork. |
| **Enrichment Opportunities** |
| At Roby Park, we believe that children learn best when they are engaged, inspired and motivated to learn. We offer a wide range of experiences and challenges that enrich our core curriculum. This allows our pupils to learn outside the classroom and develop the skills for the world beyond the primary education. Below are some examples of how we achieve this through:   * Theme weeks – STEAM week, World Religion Week, Growing Up Week * WOW days at the entry and exit points of topics – art gallery exhibitions, workshops, dress up, food tasting * Celebration afternoons to celebrate and exhibit our learning with the wider community * Invite visitor’s in – local artists, historians * Educational visits, workshops and residential trips – art galleries and museums * Fundraising and awareness days – Harvest/food banks, Macmillan Coffee Mornings, Yellow Day, Sports Relief, Comic Relief, CiN, Cycle4Sepsis, Christmas Jumper Day * Enterprise week – Y5/6 Fiver Challenge * ‘Keep safe’ curriculum – Bikeability, Friendship Week, Road Safety, Bonfire Night safety, Internet Safety, Gang Awareness, Say No to Knives workshops * Wider opportunities – Languages Day, Musical Instruments, Extra-curricular club offer * Sporting events – inter and intra competitions with the collaborative schools and KSSP * Collaborative events with local schools * Festivals, celebrations and performances – Musical concerts, Peace Proms, Pantomimes, Christmas productions, Easter celebrations, class assemblies   At Roby Park, we encourage children to use their creativity and imagination, to design and make products that solve real and relevant problems within a variety of contexts. We also aim to make links to designs and designers throughout history, providing opportunities for children to critically reflect upon and evaluate their designs. |
| **Community Links** |
| At Roby Park Primary, Design and Technology develops children’s skills and knowledge in design, structures, mechanisms, electrical control and a range of materials, including food. It encourages children's creativity and encourages them to think about important issues in their community. We hope our students will become responsible citizens who make a positive contribution to society. |
| **Wellbeing** |
| At Roby Park, we are committed to supporting the positive mental health and wellbeing of our whole school community (children, staff, parents and carers). We recognise that mental health and emotional wellbeing is just as important to our lives as our physical health.  At Roby Park, we endeavour to ensure that children are able to manage times of change and stress. We ensure that children learn about what they can do to maintain positive mental health, what affects their mental health, how they can help reduce the stigma surrounding mental health issues, and where they can go if they need help and support. The promotion of positive wellbeing is woven throughout our curriculum. |

**IMPACT**

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| **Impact** |
| The innovative practice across the school provides a strong foundation and opportunities for children to collaborate and develop social skills both indoors and out. This curriculum design ensures that the needs of individual and small groups of children can be met within the environment of high quality first wave teaching, supported by targeted, proven interventions where appropriate. In this way it can be seen to impact in a very positive way on children’s outcomes.  Enjoyment of the curriculum promotes achievement, confidence and good behaviour. Children feel safe to try new things. High quality visits and visitors to the school enhance the curriculum and provide opportunities for writing for a purpose.  Children have opportunities to share their learning with each other, their parents and carers and other learners through school-based and external exhibitions, performances, competitions and events involving other schools. Developing their independence and motivation as learners and their sense of responsibility as future citizens is at the heart of all our teaching and learning**.** |
| **Assessment** |
| We ensure the children   * Develop the creative, technical and practical expertise needed 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 and 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. Children will design and make a range of products. A good quality finish will be expected in all design and activities made appropriate to the age and ability of the child   Children learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.  Our children enjoy and value Design and Technology and know why they are doing things, not just how. Children will understand and appreciate the value of Design and Technology in the context of their personal wellbeing and the creative and cultural industries and their many career opportunities.  Progress in Design and Technology is demonstrated through regularly reviewing and scrutinising children’s work, in accordance with our assessment policy to ensure that progression of skills is taking place. Namely through:   * Looking at pupils’ work, especially over time as they gain skills and knowledge * Observing how they perform in lessons * Talking to them about what they know.   The Design and Technology curriculum will contribute to children’s personal development in creativity, independence, judgement and self-reflection. This would be seen in them being able to talk confidently about their work, and sharing their work with others.  Progress will be shown through outcomes and through the important record of the process leading to them.  At Roby Park Primary assessment is an integral part of the teaching process. Assessment is used to inform planning and to facilitate differentiation. The assessment of children’s work is on-going to ensure that understanding is being achieved and that progress is being made. Children’s skills will be assessed and developed by the teacher during lessons and through  critical discussion at the end of each unit.  Teachers’ own formative assessments will be based on learning objectives and success criteria identified in their planning, and evaluation of lessons. Feedback is given to children in line with the school marking policy.  Half termly assessments of objectives taught will be updated on Insight for foundation subjects. Steps that children are working at will be recorded at the end of each term. Teachers will record children’s performance against the age related objectives for the curriculum and decide whether children are working towards, at or above age related expectations. Assessments are used to inform planning and close gaps, in order to accelerate progress. Subject leaders will analyse termly data and address areas for curriculum development.  Pupils’ work is recorded on Seesaw where pupils are able to self and peer assess.  Displays within the classroom and hall areas will reflect a range of work across key stages, to celebrate and exhibit the work of children, of all abilities. |
| **Monitoring and Evaluation** |
| Monitoring takes place regularly through pupil interview, work scrutiny and 360 learning reviews. The impact and measure of this is to ensure that children at Roby Park are equipped with skills and knowledge which will enable them to be ready for the curriculum at Key Stage 3 and for life as an adult in the wider world.  Subject leads play an active role in the school self-evaluation cycle and throughout the year they will participate in:   * Ensure there is clear progression throughout the school * Creation of termly data reports * Reporting to SLT & Governors * Pupil voice * Work samples * Learning exploration blinks * Developing cultural capital opportunities and events * Identify any training needs and offer extra support and guidance to staff when it is appropriate * Ensure that there are suitable resources to help with the teaching and learning of their subject |
| **Review Date** |
| **Policy Agreed:** July 2020  **Policy Review:** July 2021 |

**Appendices**

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| **DT Curriculum Map** | **DT Progression Map** |
| [**Roby Park DT Curriculum Map**](https://drive.google.com/file/d/1JmIENzxVyBeUTGabhSVi0MnM_Kaphmym/view?usp=sharing) | [**Roby Park DT Progression Map**](https://drive.google.com/file/d/1WGbxCZDGk9ZpHnrgzwlCX8u8itMoBiMJ/view?usp=sharing) |

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| **DT Resource List** | **DT Cultural Capital Events** |
| [**DT Resource List**](https://drive.google.com/file/d/1lufES8IWiIuW8VuYVfmOXR6U42-CGs5t/view?usp=sharing) | [**Roby Park Cultural DT Capital Enhancement Events**](https://drive.google.com/file/d/1UjuEFfbhuEkOMq03d9No9zpEPSvX1DW3/view?usp=sharing) |

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| **Subject Lead Monitoring Schedule** |
| [**Annual Subject Leader Monitoring Cycle**](https://drive.google.com/file/d/1rNFQAjuGBkGk-GE4Lrixdd4OF6sK3fOO/view?usp=sharing) |

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| **DT Knowledge Organisers** | | | |
| **Year 1** | [**Aut 1 KO**](https://drive.google.com/file/d/1K5tOiA88Mwu1IH52a6ENEQhp0gmxS2Pc/view?usp=sharing) | [**Spr 1 KO**](https://drive.google.com/file/d/1KUU_wLhvhx4mecAh2K2PF1__JKQfw2k0/view?usp=sharing) | [**Sum1 KO**](https://drive.google.com/file/d/1TxPPSa2iObNP1e5UwB5R695ykqchhLM7/view?usp=sharing) |
| **Year 2** | [**Aut 1 KO**](https://drive.google.com/file/d/1XOKHLz6EHTRDXRxIiPAp0J9NqOnpzQHw/view?usp=sharing) | [**Spr 1 KO**](https://drive.google.com/file/d/1RtAzmI-KL2gRZVMIvWfj9XZItHwARVIO/view?usp=sharing) | [**Sum1 KO**](https://drive.google.com/file/d/1LYm6GZDjPOSnO0CxxskKkKRPDvRiJYXK/view?usp=sharing) |
| **Year 3** | [**Aut 1 KO**](https://drive.google.com/file/d/1ftrpYjYti0n6sWrhXGsT7RY2Rh2vBADk/view?usp=sharing) | [**Spr 1 KO**](https://drive.google.com/file/d/1ljiomJcEvVqP-ZasDj5DPcHZNE8x8bmH/view?usp=sharing) | [**Sum1 KO**](https://drive.google.com/file/d/1hM-DDBF7Z2W3100-ls55IY_7bN5k2cQ_/view?usp=sharing) |
| **Year 4** | [**Aut 1 KO**](https://drive.google.com/file/d/1yvGHzQ56iIZGU6hUNYO1mJpNCneuzhqn/view?usp=sharing) | [**Spr 1 KO**](https://drive.google.com/file/d/1PRFdqasU-weRigcYdbECWZpcnrwc9mjX/view?usp=sharing) | [**Sum1 KO**](https://drive.google.com/file/d/1g2cy8j4e-BZEpdgSAlFZX0OPaoFxl6AM/view?usp=sharing) |
| **Year 5** | [**Aut 1 KO**](https://drive.google.com/file/d/1-_b7fVWf3ESWj6Sl8mCSg2wqVKzpsAhK/view?usp=sharing) | [**Spr 1 KO**](https://drive.google.com/file/d/1GLVJwkaLTdTtWOSiNGHf7lLrW90Ps6p7/view?usp=sharing) | [**Sum 1 KO**](https://drive.google.com/file/d/1a_vzRdVNEsExYNf_V9vg82uav2TevsF4/view?usp=sharing) |
| **Year 6** | [**Aut 1 KO**](https://drive.google.com/file/d/1TJBSOfV2aXTF0ZvuVB8vf2hlS3RCiCyR/view?usp=sharing) | [**Spr 1 KO**](https://drive.google.com/file/d/1fSOTYVyxPe_zALn1t9tR-ug-04XSKITF/view?usp=sharing) | [**Sum 1 KO**](https://drive.google.com/file/d/1LOwwlEeT6X24JCxgeXfX8qd9UIvMVfMB/view?usp=sharing) |