

Design and Technology at Grange Primary Academy

<u>Design and Technology Curriculum Drivers</u>	<u>Deepening Concepts</u>	<u>Sequencing of Content</u>	<u>Big Ideas</u>
As a result of the children being taught the Grange Curriculum, our children will be: A Resilient Learner – Pupils are resilient learners who overcome barriers and understand their own strengths and areas for development. An Independent Enquirer – Pupils are safe and happy in design technology lessons which give them opportunities to explore their own creative development. An Articulate Collaborator- Pupils are able to critique their own work as a design technician because they know how to be successful. They are able to talk about a variety of famous design technicians over time.	The DT curriculum has been developed so all pupils can: - 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.	All new content will follow the same sequence from EYFS to Yr 6: <u>Investigative and Evaluative Activities (IEAs)</u>-Children begin by exploring and critically evaluating existing products. <u>Focused Tasks (FTs)</u>-Children will then learn practical skills needed to make a product and explore the work of workers in the DT community. <u>Design, Make and Evaluate Assignment (DMEA)</u>-Children to follow the design and make cycle to create their own product against a design criteria. They will critically evaluate their own product as well as their peers and refine work.	- Focus on using and exploring a variety of tools and techniques, experimenting with colour, design, texture, form and function from EYFS through to Yr6 - Construction skills are developed in each year group from basic constructions to moving mechanisms and use of electricity. - Basic fixing techniques using fabric glue, stapling etc are used in key stage one and progress to use sewing joins in key stage two such as running, blanket cross stitches. - Basic hygiene skills and the importance of healthy eating are built up throughout each year group.
An Ambitious Individual – Pupils are encouraged and nurtured to overcome any barriers to their learning or self-confidence because feedback is positive and focuses on design and technology skills and knowledge. A Considerate Participator -Pupils are engaged because they are challenged by the curriculum which they are provided with. They develop design technology skills and confidence over time because of careful planning, focused delivery and time to practice and hone skills.		<u>Purpose</u> "Design and Technology education helps develop children's skills through collaborative working and problem-solving, and knowledge in design, materials, structures, mechanisms and electrical control. They are encouraged to be creative and innovative, and are actively encouraged to think about important issues such as sustainability and enterprise." D&T Association	<u>Retrieval Practice</u> - Low-stakes quizzing for long-term memory. - Use of Knowledge Organisers for each unit with built in progression from previous units. - Important technological terms e.g. design, prototype, criteria - Key knowledge and skills are retrieved and then built upon in successive year groups

<u>British Values</u>	<u>Cultural Capital</u>	<u>SMSC</u>
Group work which requires collaborative decision making. Learners understand their place in a group and the collective decision making process. Taking turns and the safe use of equipment for the benefit of all. Respecting resources Freedom of expression is promoted in creative work. Respect is encouraged and developed through positive and considered reflection and feedback Respecting resources and understanding the rules around safe use Freedom of expression is promoted and encouraged in creative work. Learners are encouraged to express their own opinions. The delivery and acceptance of constructive criticism. Learners are encouraged to reflect on each other's work to promote respect and tolerance. The work of all cultures is equally valued	Cultural capital is the accumulation of knowledge, behaviours, and skills that a child can draw upon and which demonstrates their cultural awareness, knowledge, and competence; it is one of the key ingredients a pupil will draw upon to be successful in society, their career and the world of work. In DT, Cultural Capital can be gained in many ways; • The study of a range of designers allows learners to understand and appreciate the similarities and differences across different disciplines and cultures. • Learners are encouraged to reflect on each other's work to promote respect and tolerance. • Understanding how different cultures have contributed to technology. • Understanding of the food of different cultures and the socio-economic issues around this. • Exploring products and construction form a range of cultures and time periods.	In looking at creative work, learners have time to reflect upon themes and emotions that are communicated. In learning about different designers/engineers and what inspired them, they develop an appreciation of the world around them and its place in history. The use of a design book encourages reflection on their own ideas. Reflecting on inventions, products, range of materials etc. and how they can change and improve our lives and those of others. They develop a sense of curiosity and evaluation of products to encourage reflection. They understand seasonality and the part that this plays in our lives. In exploring work of different designers/engineers from different periods and cultures, learners are able to discuss different moral and ethical issues. ie, Paul Klee. Children have discussions around controversial designers and designs. They have an awareness of the moral dilemmas caused by technological advances. They use sustainable materials i.e, Reduce, Reuse Recycle – Make do and Mend. They consider the carbon footprint of products, Fair Trade products and associated issues Learners are encouraged to reflect on each other's work to promote respect and tolerance. Collaborative work on larger pieces. Working as part of a team / sharing equipment and negotiation.
<u>Impact</u> Through our planned and progressive curriculum children build a knowledge and understanding of key concepts and skills within DT. Through the development of DT skills children are able to question ideas and reflect on their knowledge and understanding of DT in a real-life context. Learning allows children to work collaboratively and practically to investigate and experiment and be able to reason.		