Manor Junior School

Curriculum Statement – Design Technology

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<tr><th colspan="2">"Design is not just what it looks like, design is how it works" – Steve Jobs</th></tr>
<tr><td>The national curriculum 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.</td><td><u>Our Planning Approach</u>
Hook/Key Question
Create a need to know or a problem to be solved to inspire and fascinate. Share outcome and identify the purpose, user and product.
Investigate and Evaluate
Investigate existing designs, products and designers. Review technical knowledge skills and check prior learning. Introduce key vocabulary.
Focused task
Learn and practise new skills.
Design, Make and Evaluate
Create a design brief, which is authentic and meaningful.
Plan and create designs/annotate sketches incorporating skills and knowledge. Identify the main stages in making the product.
Make product applying skills and technical knowledge.
Evaluate throughout the making process and the final product against the intended purpose and user. Consider what others think of the product when considering how the product might be improved and answer the key question.</td></tr>
<tr><td><u>Intent – (Aims)</u>
At Manor Junior School our intent is to offer all children an inspiring and engaging Design and Technology curriculum where they will explore, learn and achieve.
Children will have the opportunity to work in a range of contexts through our enquiry based approach. Through the teaching of a wide and varied Design and Technology curriculum, we aim to equip them with the skills and knowledge base needed to be able to design and make solutions to practical problems. We aim to encourage the children to become confident and inquisitive learners who have the skills and knowledge to deal with tomorrow's rapidly changing world.</td><td><u>Implementation- How do we achieve our aims?</u>
Our DT curriculum allows pupils to build on DT enquiry skills throughout their time in our school, linking topics through key learning threads identified in our planning approach. Within each topic, we will inspire the children's interest through setting a problem that they have to design a solution for. Children will be making connections between their prior knowledge, the products they evaluate and their newly acquired skills. They are expected to apply these in designing their solutions and to evaluate and recognise their achievements. Life skills such as the use of tools are built upon throughout their time at manner e.g. cooking skills build from simple knife skills used to make sandwiches to the more complex ones required to prepare fresh vegetables.</td></tr>
<tr><td><u>Impact - How will we know we have achieved our aims?</u>
The children will have:
• Experience of using different joining, cutting and finishing techniques with variety of materials.
• Generated realistic ideas and design criteria collaboratively through discussion, focusing on the needs of the user and purpose of the product.</td><td><u>Curriculum Links with other subjects and enrichment opportunities</u>
<u>Year 3</u>
RE – Christmas Cards
Maths – 3D nets and Measures
Computer Aided Design
Outdoor – growing vegetables</td></tr>
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• Developed ideas through the analysis of existing products, market research and use annotated sketches and prototypes to model and communicate ideas. • Ordered the main stages of making. • Used appropriate tools to measure, mark out, cut, score, shape and assemble with some accuracy. • Explained their choice of materials according to functional properties and aesthetic qualities. • Used finishing techniques suitable for the product they are creating. • Investigated and evaluated a range of existing solutions including the materials, components and techniques that have been used. • Tested and evaluated their own products against design criteria and the intended user and purpose. • Used technical vocabulary relevant to their projects worked as part of a team. Planning is monitored by the subject leader and work is sampled for each project. Year leaders are given feedback.	Science forces PSHCE – keeping healthy <u>Year 4</u> Electricity science Control tech – computing Outdoor learning harvest berries and acorns for dyes Outdoor- Planting for dyes, Pizza toppings English – letters to takeaways for samples / supermarkets – Pizza hut kitchen? Science – digestion <u>Year 5</u> Maths - area Outdoor – plan vegetables to grow for soup Maths – 3d shapes / nets, surface area English – letters to supermarkets for samples PSHCE Year 6 Seasonality – harvest petals for later in year Computing - programming Maths – money – profit /loss PSHCE Money sense

<u>Curriculum Overview: Design and Technology at Manor Junior School</u>

	Autumn	**Spring**	**Summer**
Year 3	Mechanical Systems: Levers and Linkages (moving Christmas cards)	Cooking and Nutrition: Healthy and varied diet (bread roll)	Structures: Shell Structures (seed bomb packaging)
Year 4	Electrical Systems: Simple Circuits and switches (torch)	Textiles: 2-D shape to 3-D product (bag)	Cooking and Nutrition: Healthy and varied diet (pizza)
Year 5	Cooking and Nutrition: Culture and seasonality (soup)	Structures: Wooden structures (tents)	Textiles: Combining different fabric shapes (pencil case)
Year 6	Electrical Systems: Mechanical Systems and Control (buggy)		Design History: Designing and making innovative products consumer, innovative, exploded diagram (Big Business) Cooking and Nutrition: Culture and seasonality (microwave meals)