Morden PRIMARY SCHOOL
Learn - Achieve - Enjoy

Subject Story

Design & Technology

Intent

Design and Technology prepares children to deal with tomorrow's rapidly changing world. It encourages children to become independent, creative problem solvers and thinkers as individuals and part of a team. It enables children to identify specific needs and opportunities and to respond to them by developing a range of ideas and by making products and systems. Through the study of Design and Technology, children combine practical skills with an understanding of aesthetic, social and environmental issues, as well as functions and industry. This allows them to reflect on and evaluate past and present technology, its uses and impacts.

The National Curriculum states:
Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils 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.

Implementation
It is the intent of Morden Primary School for Design Technology to be taught in all year groups through at least one topic per term, which includes one topic relating to food. Half-term projects are often made cross-curricular, linking to other subjects to Design and Technology.

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.
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 experiences.

Design and Technology also embeds our Morden Values to learn, achieve and enjoy. It is an inspiring, rigorous and practical subject, requiring Respect, Teamwork, Resilience, Hard work and determination to take on a Challenge. 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 and

enterprising. Through the evaluation of past and present technology, they can reflect upon the impact of Design Technology on everyday life and the wider world.

Design and Technology is taught with a progressive sequence of units of work that develops thinking and practical skills through the school years.

Impact
At Morden Primary School, children are taught the knowledge, understanding and skills needed to engage in the process of designing, making and evaluating their final-outcomes. Our children are developing confidence when using analytical skills to studying existing products and draw upon their reading, writing, science and art skills when explaining and recording in detail.

Children are using a range of materials and tools to reflect on existing products and design and make original ideas independently and as a team.

Making mistakes, being resilient and redesigning is viewed as a natural process in reaching the desired outcome and we allow children the time and understanding required to evolve their thinking around acknowledging this as a grown mindset skill.

The process of evaluation is seen as an ongoing practise found in children's peer dialogue, teacher lead discussions and planned stages of reflection. Evaluation is also evident as the end of the sequence of every Design and Technology unit, to reflect of the functionality and effectiveness of children's final product.

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 the right challenge required by the children. 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. Design and 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.

If you were to walk into DT lessons at Morden, you would see:

- **PlanBee guidance** will be used to teach a range of Design and Technology lessons that meet the National Curriculum skills necessary to learn, achieve and enjoy a range of skills.
- **Reference back to the unit title page –** at the start of each lesson, focussing attention on the skills to be developed in the proceeding learning activities.
- **Retrieval practice –** giving learners the chance to consolidate previous skills and knowledge.
- **Careful examination of products**, for example food and design products, as children evaluate them and design their own improved version, tailored for a specific audience.
- **Range of relevant resources** provided for children that fulfil their design criteria and will be given time and opportunities to evaluate and re-design features if necessary.
- **Display and evaluation** of children's final designs against a criteria for that product, explaining what went well, what could improve and comparing it against existing and peer's products too.
- **Enjoyment** of learning in Design and Technology.

Pupil Voice
Y1: Building houses was fun. They were big and I could choose where things went then moved them around if I wanted. You had to pull the move the long thing at the side to make the moving picture move.

Y2: I made a unicorn puppet to tell stories about my religion with. I could move it with my hand and I attached features. I enjoyed building my pizza and sprinkling the cheese.
Y3: Our moving Santa's moved using a syringe and a tube. I loved creating photo frames so much I made more at home afterwards.
Y4: Seasonal food is food that is only available in certain times of the year. When we made money containers we used sewing. I want to do it again and sew in straighter lines.
Y5: Making bread was interesting as I hadn't made food from basic ingredients before. Sewing was challenging and you need to keep calm and safe. DT is good for children who can do well in something else, when they find literacy and maths hard.
Y6: We studied fairgrounds and tried to look at how each ride worked to make it move. We tried to copy the same movements in our work. We made vegetarian burger patties which was fun. I can think of ways that I would have improved it, to make my final burger less soft in the mouth.

An example of skills and knowledge progression within our DT curriculum

	Developing, planning and communicating ideas		
Y1	• Draw on their own experience to help generate ideas • Suggest ideas and explain what they are going to do • Identify a target group for what they intend to design and make • Model their ideas in card and paper • Develop their design ideas applying findings from their earlier research	**Y4**	• Generate ideas, considering the purposes for which they are designing • Make labelled drawings from different views showing specific features • Develop a clear idea of what has to be done, planning how to use materials, equipment and processes, and suggesting alternative methods of making, if the first attempts fail Evaluate products and identify criteria that can be used for their own designs
Y2	• Generate ideas by drawing on their own and other people's experiences • Develop their design ideas through discussion, observation , drawing and modelling • Identify simple design criteria • Make simple drawings and label parts	**Y5**	• Generate ideas through brainstorming and identify a purpose for their product
Y3	• Generate ideas for an item, considering its purpose and the user/s • Identify a purpose and establish criteria for a successful product. • Plan the order of their work before starting • Explore, develop and communicate design proposals by modelling ideas • Make drawings with labels when designing	**Y6**	• Communicate their ideas through detailed labelled drawings • Develop a design specification • Explore, develop and communicate aspects of their design proposals by modelling their ideas in a variety of ways • Plan the order of their work, choosing appropriate materials, tools and techniques

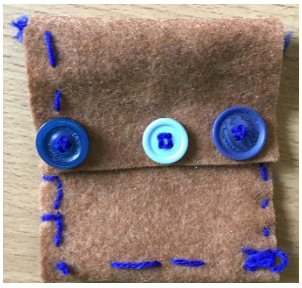
Examples of children's learning: - Are all these from this year?

Designing healthy eating

Making bread

Photo frames

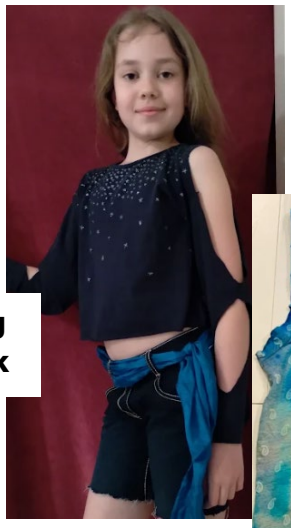
Making puppets



Money containers

Making houses

Designing and making clothes – project work



Tie and dye: redesigning old clothes - project work

Successes for 2021 - 2022

Identify:

Develop:

- End of units assessments were brought in at the end of 2022.
  Some photographic evidence identified from some year groups.

Embed:

- Monitoring showed that DT lessons matched lesson plans, which matched progression documents.
- Plan Bee scheme of work used confidently across the school to teach DT.
- Some evidence of Learning objectives and vocabulary on display and mostly made skills clear.
- DT taught consistently on an alternate half-term weekly basis across the school.
- Children are starting to identify which skills are required to complete the task.
- End of unit assessment are now taking place and outcomes are informing planning of the next unit.
- DT home learning evidence from different year groups, extending a love of the subject and applying skills learnt outside of the classroom.

Priorities for 2022/23

Identify:

- Progression documents for each year group will be reviewed to reflect diversity.

Develop:

- A bank of resources to support diversity coverage will be sourced.
- Learning objectives and vocabulary on display in every lesson and always make skills clear.

Embed:

- Non-negotiables outlined above (*If you were to walk into a DT lesson …*) are evident in all lessons.
- Children will be able to identify which skills are required to complete the task.
- Class model of DT focus will build week on week for modelling and demonstration (including evaluation).
- Diversity will be reflected across LTP for DT.
- Final model/food displayed and to be used for discussion at the start of the DT unit.

Priorities beyond 2023

Establish:

- Children will be able to clearly identify skills they have developed.
- Children will be able to complete end of unit assessments to track progression of skills and knowledge with confidence.
- Children will produce high quality end products at the end of each unit of work.

Some websites you might find particularly interesting

Useful Design Technology Links:

www.nhs.uk/change4life/food-facts

www.bbcgoodfood.com

https://www.bbc.co.uk/bitesize/subjects/zykw2hv

www.teachingideas.co.uk/subjects/dt

https://www.activityvillage.co.uk/