

At Hamstel Infant School and Nursery, we believe design and technology should be immersive, where every child takes part in learning that is memorable, engaging and meaningful. Our aim is for every child to be forward thinking designers and makers, by gaining exciting key knowledge and skills, which prepares them for everyday problem solving.

INTENT—*We aim...*



To provide valuable **life-skills** and essential **knowledge** in cooking, sewing, building and basic mechanical engineering .

For every child to become a **reflective learner, risk taker** and **forward thinker**.

To provide practical **hands-on** experiences to develop **skills** and **processes**.

To stimulate **creative flair** and **originality** in every child.

For all children to **learn through talk** to deepen their subject knowledge and understanding of DT.

For all children to remember, understand and use **subject specific vocabulary** across DT.

IMPLEMENTATION—*How do we achieve our aims? ??*

Our **Hamstel Headlines** underpin and drive our fundamental techniques to ensure high quality teaching in design and technology, through excellent subject knowledge, high level of engagement, independent learning and practical experiences through a connected curriculum.

Sequenced Planning and Progression

Our design and technology curriculum follows the Early Years Curriculum and National Curriculum. **Long term planning** from Nursery to Year 2 ensures **coverage of content**. **Medium term plans** outline a clear **sequence of lessons** to ensure skills and knowledge are built on and developed whilst prior learning is revisited, reinforced and extended. **Progression grids, medium term plans** and **connected grids** support teachers short term planning to ensure planning builds on previous learning and vocabulary development as well as ensuring key **'sticky knowledge'** is covered. Progression grids are used by teachers to plan appropriate adaptations to teaching so that all children are able to access the curriculum content and successfully meet the outcomes of lessons.



Mini Projects

All children are **explicitly taught** three 'mini projects' per year, where possible these are linked to the current theme to create a **connected curriculum**. Through quality teaching and learning, children **explore existing products** and learn about how they are made and work. From this, children **develop their ideas** in order to **design** and **make** their product. This enables children to produce creative, bespoke products by engaging in the design, make and evaluate processes. During designing and making, children are supported to make decisions such as selecting materials and techniques and to decide what their product will look like, how it will work and if it meets the **design specification**. Children are given the freedom to decorate their product in their own way. In KS1, the children record their designs and evaluations in their theme books.



EYFS

Throughout the Early Years, skills and knowledge are gained through play-based activities during continuous provision, where children have the freedom to **explore** different media and materials. Through exploration, children gain a **deep and meaningful understanding** of how things work, how to join materials together and how to use tools safely, giving them a practical concept relevant to design and technology. Three units of DT are explicitly taught throughout the year, following the explore, design, make and evaluate sequence of lesson. Our DT journals showcase the learning process.



Progression of skills



Progression grids show how **knowledge and skills** progress through the curriculum, gradually building on previous learning. In Nursery, children explore lift flap books and books with moving mechanisms to learn about cause and effect. In Reception, we build on this knowledge by designing and making moving sliders. In Year 1, children explore moving parts further by designing and making a moving picture. In Year 2, the children take all the knowledge and skills they have gained so far, and acquire new knowledge of how mechanisms work and move, through their wheels and mechanisms project. Through this repetition of knowledge and skills, learning is embedded into long term memory in preparation for the next Key Stage.



Oracy and Vocabulary Development



At Hamstel we believe oracy deepens and enhances knowledge and understanding in DT. Children are encouraged to **articulate, justify and explain** their ideas and have opportunities to share, develop and consolidate their understanding through talk. **Subject specific vocabulary**, linking to the skills and knowledge the children are learning, is purposely planned and taught explicitly. New words are **modelled** in the correct context, and children are taught how to articulate their new words in sentences. Throughout all lessons children understand how to use **STEM sentences** and they use these to **express their subject knowledge** and what they have learnt.

Enrichment

Our **outdoor learning sessions** further enriches our children's DT skills. Our bespoke outdoor learning curriculum, encompassing the 'Hamstel 50 Things' gives children the opportunity to experience a variety of DT skills.

Our children will have experiences such as using a **screwdriver**, **cooking on an open fire**, using a **hammer** to nail pieces of wood together, **making a raft**, building **mini shelters**, using **saws** safely, using **secateurs** and **whittling sticks**.

Showcasing



Children's DT learning is showcased on our **DT display board**. The design, make and evaluate processes are displayed to celebrate children's understanding and learning. This is further showcased in the **Art and DT Festival**, across the academy, which enables our children to show how proud they are of their achievements.

Assessment

Using **progression grids and our highlighted expectations** for the end of EYFS and Key Stage 1, teachers are able to assess the knowledge and skills that the children have been taught. In **EYFS assessment checkpoints** are used to inform judgements, using **observations** is a key part of this process. **Previous learning** is reviewed at the start of all lessons to check that children have the knowledge and skills needed for the lesson. **Effective questioning and feedback strategies** are used to provide feedback and address gaps or misconceptions. Assessment of key skills are made throughout the sequence of lessons and from the end product produced at the end of a mini project.

IMPACT—How will we know we have achieved our aims?



Children demonstrate **knowledge and skills of cooking, sewing, building and basic mechanisms** through practical and written work.

Children are **reflective** in their work, and **take risks** through **trial and error**. They rethink and push forward their ideas, showing **resilience** to bounce back and carry on.

Children **develop skills** and processes through **hands-on** experiences.

Children show **originality** in their designs and **creative inventiveness** in the products they make.

Through talk all children have **deep subject knowledge** and **understanding** of DT.

All children remember, understand and use **subject specific vocabulary** across DT.