"We all flourish from a wealth of learning experiences that positively impact on our educational, physical and emotional success"

Horsted School

Design and Technology Policy

Horsted school is a vibrant, safe and welcoming school where we celebrate and welcome differences within our school community. The ability to learn is underpinned by the teaching of basic skills, knowledge, concepts and values with a vision to prepare pupils for a happy and healthy life beyond primary school.

The shared vision of the Bluebell Federation is:
"We all flourish from a wealth of learning experiences that positively impact on our educational, physical and emotional success."

Our school value, which underpin our curriculum, is that our children will leave us with a genuine enthusiasm for learning and as

1. **S**triving (they will be determined, persevere and they will be resilient);
2. **T**houghtful (They will be creative, logical and curious about their world and those around them);
3. **A**mbitious (personally, emotionally and academically);
4. **R**esilient (be motivated, be able to problem-solve and stay positive); and
5. **S**upportive (of themselves, others and their wider community) individuals.

Aim and purpose
We aim to achieve this through our curriculum's rich web and in partnership with parents. The curriculum at Horsted is designed to provide an enjoyable, 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.
Horsted is an inclusive school. We strive to ensure that all children will be able to access the curriculum or make necessary modifications to it in order to achieve this.

Approved by: Mr. C. Woodward		**Date:** 6/3/2023
Last reviewed on:	March 2023	
Next review due by:	March 2025	

DESIGN AND TECHNOLOGY POLICY

'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.' (DfE 2014)

At Horsted School, we are committed to children being able to find out about their world and how things work through opportunities to design and make functional products with a real purpose and user in mind. Our ambitious D&T curriculum follows the KAPOW Primary scheme and aims to inspire a new generation of innovators and to equip them with the tools that they will need to understand and to strive for real change, on a local, national and global scale.

Children acquire and apply knowledge and understanding of materials and components, mechanisms, control systems, joins, nutrition, prototypes, planning, nets, structures, existing products, parameters of quality and health and safety. The skills learnt in D&T are transferable to numerous other areas of the curriculum: Measurement is used in mathematics. Understanding of materials is used in science. Experience with tools can afford new freedom and scope in art lessons. Ethical sourcing of materials, environmental impact and consideration of location and location specific aesthetics link to our geography learning. Additionally, geography is complimented by the work on nutrition and seasonality that every year group completes yearly. Knowledge of great inventors and inventions represents important cultural understanding that is informative for history and science lessons and for many of our reading VIPERS texts.
Design and Technology education helps develop children's STARS qualities through collaborative working, problem-solving and a trial and improvement approach. Resilience is key in our approach to D&T and we teach students that the majority of great innovations occurred only after repeated failures. This may mean that many children will not complete a unit of D&T learning with a high-quality finished product and that is OK. They are encouraged to be thoughtful in consideration of a problem, ambitious in what they chose to design to solve that problem, striving in their execution of that design, supportive to their classmates throughout this process and resilient should it not work out first time.

According to The Design and Technology Association, there are three core activities children engage with in Design and Technology:

- Activities which involve investigating and evaluating existing products
- Focused tasks in which children develop particular aspects of knowledge and skills
- Designing and making activities in which children design and make 'something' for 'somebody' for 'some purpose' These three activities are combined in sequence to create a Design and Technology project.'

We aim to ensure that all pupils are able to:

- 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.
- Be resilient and persevere in the face of that knowledge that most ideas are not executed successfully on the first try.

Organisation and Planning:

Taught lessons are delivered through the Kapow D&T scheme of learning and utilise the Knowledge and Skills documents that are provided at the start of each unit. Using these organisers, teachers and students build upon prior learning constantly and reiterate new knowledge (such as, but not limited to, vocabulary) until it is common in the classroom and internalised fully by the children before they advance to subsequent year groups and key stages.
Foundation Stage students take part in a carefully curated curriculum, designed to prepare them for the specific type of learning that will take part in D&T lessons. This begins through imaginative exploration of materials and different mediums, but advances with ambitious rapidity into specific equipment and material specific knowledge and skills.

Assessment, recording and reporting:

Each child's performance in Design and Technology will be assessed by the teacher using ongoing formative assessment. Formative assessment is ongoing assessment used to monitor student learning in order to provide feedback that can be used to improve teaching and learning outcomes. Formative assessment also takes place via Kapow's end of unit quizzes which assess the retention of each unit's specific knowledge and skills. Summative assessments indicate if the teacher thinks the child is working towards the expected level, at the expected level or at a greater depth. These assessments are recorded via an online assessment book on Arbor.

We check pupils' understanding systematically and effectively in lessons, offering clearly directed and timely support, i.e. moving children on from their starting points, providing different starting points and addressing misconceptions at the point of need. We provide children with incisive verbal feedback, about what they can do to improve their knowledge, understanding and skills.

Inclusion and differentiation:

Our D&T curriculum provides all students with a level of challenge that enables them to utilise all of our Horsted STARS tenants to be the absolute best that they can be. This is ensured by a diverse array of differentiation techniques:

Student specific material selection
Project scale
Target audience
Groups (these may vary dramatically depending on the project, but may involve mixed ability pairings, whole table and TA teams, greater-depth challenge groups, physical access pairings)
Assessment informed briefs
Tool and equipment selection
Implementation of outside professionals

The Role of the Subject Leader:

- To advise colleagues, where necessary, on the development of planning and delivering the curriculum.
- To keep up to date with developments in design and technology education passing this on to other members of staff.
- To monitor and evaluate progress and outcomes in design and technology, supported by the knowledge and skills progression document for D&T and liaise with senior leadership on any action necessary.
- To liaise with appropriate bodies e.g. other primary and secondary schools, governors, the LEA etc. concerning matters relating to design and technology.
- To monitor learning in design and technology by working alongside colleagues and by viewing children's achievements.
- To listen to the pupil's voice and use these exchanges to highlight areas for improvement in the delivery of the D&T curriculum

Resources:
The list of resources used throughout the D&T curriculum is vast and can be found on the Kapow website here – https://www.kapowprimary.com/featured_documents/design-and-technology-resources-and-costings-sheet/

Those stored in the school are kept in the D&T/Science cupboard, the Infant and junior maths and art cupboards and in each classroom in the Horsted Junior building.

Health and safety:

When working with tools, equipment and materials, in practical activities and in different environments, including those that are unfamiliar, pupils should be taught:
about hazards, risks and risk control.

- to recognise hazards, assess consequent risks and take steps
- to control the risks to themselves and others.
- to use the information to assess the immediate and cumulative risks.
- to manage the environment to ensure the health and safety of themselves and others.
- to explain the steps they take to control risks.

A full list of risk assessments associated with each taught unit on the curriculum can be found on the Kapow website here - https://www.kapowprimary.com/featured_documents/dt-risk-assessment-pdf-featured-document/