

Subject Leader Report: Design and Technology

'Our Vision is for every child to love learning, be compassionate and achieve now and in the future. Working together with our communities, we will give our children roots to grow and wings to fly.'

Our Aims in DT

At Portsdown Primary School, design and Technology develops children's skills and knowledge in design, structures, mechanisms, electrical circuits and materials including food. It encourages children's creativity and encourages them to think about important issues, and as outlined in the National Curriculum

document, we follow a 'Research, Design, Make and Evaluate' approach to the teaching and learning of DT.

Our children throughout the school are taught cooking and nutrition. We provide a curriculum which enables children to make healthy eating choices. We

believe teaching pupils to cook is an important part of promoting a whole school approach to health and wellbeing. We have a well resourced kitchen area that the children enjoy using as part of their cooking experiences, where they are taught safety aspects of cooking and to develop independence, cooking simple nutritious foods.

Our main priority is for children to be problem solvers who are not afraid of making mistakes. We hope our children will become responsible citizens who make a positive contribution to society.

Substantive knowledge

Substantive knowledge in design and technology is based on the knowledge of four key elements of the process of design (design, make, evaluate and technical knowledge). Vocabulary is taught explicitly and will be deliberately practised and applied through the 4 key elements.

Disciplinary knowledge

Disciplinary knowledge in design and technology is the process of enabling children to use their substantive knowledge of products and materials around them to make links between and across different areas of the curriculum.

Disciplinary knowledge in design and technology will equip the children with the opportunity to think and talk like designers.

Planning and Teaching

At Portsdown, we follow the National Curriculum to ensure that children are able to learn

- To establish a safe learning environment which is stimulating, imaginative and relaxed where students feel supported and secure.
- To link to many different curriculum areas in order to develop a set of transferable skills they can enjoy in school and use in their future working lives.
- To enable Children to combine their designing and making skills with knowledge and understanding, in order to research, design, make and evaluate products of high quality.
- To value the work of all students, using assessment as a means to monitor student progress, provide information in relation to attainment on a national scale.

EYFS- The majority of children's learning is implemented through child initiated activities. Children have opportunities daily to explore design and technology areas both inside the classroom and in the outside area. This encourages independence and creativity.

The children also participate in small group and one-to one adult directed activities to target a specific skill or technique. Children experience problem solving, sewing, building, woodwork and cooking.

They are encouraged to imagine and develop their enquiries and ideas using materials and tools over an extended period of time.

Children also have opportunities to evaluate and talk about their work. They can

explain what they are doing and what they think of their final product.

Year 1

- Cooking and nutrition - **Healthy sandwich**
- Freestanding structures - **Photo frames**
- Textiles - **Binca flag**

Year 2

- Cooking and nutrition - **Parfait**
- Mechanisms, Wheels and axles - **Wheelbarrows**
- Textiles Templates of joining techniques - **Hand Puppets**

Year3

- Cooking and nutrition - **Simple meal – pizza**
- Structures and Levers - **Moving circus performers**
- Textiles - **weaving**

Year 4

- Cooking and nutrition - **Healthy lunch**
- Electrical Systems Simple circuits and switches - **Torches**
- Textiles - **Bags**

Year 5

- Cooking and nutrition - **Spanish Cuisine- Choice of dishes including paella**
- Frame Structures, Electrical Systems More complex switches and circuits (including programming, monitoring and control) - **Moon Buggies**
- Textiles - **Cushions**

Year 6

- Cooking and nutrition - **Brazilian dishes**
- Frame Structures / Electrical Systems More complex switches and circuits (including programming, monitoring and control) - **Board games**
- Textiles Combining different fabric shapes (including computer aided design) - **WW2 badges**

Assessment

In Design and Technology lessons formative assessment is used to move children's learning forward and to inform next steps. Attainment is tracked against the national curriculum expectations. This allows us to address any gaps in attainment.

Monitoring the Quality of Teaching and Learning

The quality of teaching and learning within DT is monitored by the subject leader. This includes Pupil interviews, Staff and Pupil questionnaires, lesson observations and monitoring of planning and teaching. We have also introduced

DT books to each year group so that research, design, pictures of the finished products and evaluations can be passed up throughout the school. This will enable each teacher to be aware of each child's starting point and their progression throughout the school.

Wider Enrichment Opportunities

DT has been taught across the school linked to other subject areas. Children have enjoyed the opportunity to share cooking and nutrition, sewing and woodwork within their Golden time and KS1 have taken part in an after school cooking club.

Evaluation

DT was taught in sections throughout the year. It is now taught in line with the Art units. Each class has three DT units to be taught to the children.

Red DT books have been provided to monitor progression in the four areas of research, design, make and evaluate. These will be passed on to each new year so teachers can assess starting points.

An Overview has been created so that each teacher is clear when to teach each unit. Also three knowledge organisers have been created for each year so that they can clearly map out their teaching for each unit.

Targets for 2023 – 2024

- Encourage teachers to take risks

Make sure children have complete control of their designs and making. Provide opportunities for children to re-visit their designs throughout the making stage so that they are able to evaluate, change and adapt.

- To have some CPD training for staff

So that can feel confident when delivering DT lessons and to give them ideas for developing lines of enquiry from the children. Making sure they are confident in encouraging the children to expand on their original ideas.

- Provide enrichment opportunities through educational visits to other schools, identifying structures in the local area etc.

Targets for 2024 – 2025

- To support teachers new to the school and new to year groups.

OS will ensure that teachers have the subject knowledge and resources they need to confidently deliver the art learning for the year.

- To support teachers in delivering high-quality, engaging, and inclusive DT lessons, ensuring the whole DT process (research, design, make, evaluate) is evident in learning.

OS to update DT units where necessary to ensure learning is challenging and engaging – see overview for updates. OS to monitor units of learning to ensure the whole DT process is being taught and evident in books and evaluate use of floor books.

- To ensure the handover of DT to the new subject leader is successful.

OS to discuss the remaining units for DT with teachers to check subject knowledge and prepare any future support that might be needed. OS to complete handover with new subject lead and provide any support needed.

Targets for 2025 – 2026

- To support teachers in delivering high-quality, engaging, and inclusive DT lessons, ensuring the whole DT process (research, design, make, evaluate) is evident in learning.

HOB to update DT units where necessary to ensure learning is challenging and engaging – see overview for updates. HOB to monitor units of learning to ensure the whole DT process is being taught and evident in books and evaluate use of floor books.

- Become more confident with DT primary curriculum including the health and safety requirements. This to include learning walks with, and support, from the Senior Leadership Team.

To read the planning and curriculum across school, watch some DT lessons to understand what they are and what the different stages look like, research CPD available, attend subject specific meetings. Research and understand the purpose of the outcomes for each unit across the school.

- Create a log of resources and organise the cupboard to make the curriculum successful, including the use of new areas to store equipment and materials.

Create a stock list, including where to order from, organise the cupboard into years/terms so that resources are easily accessible and organised.