Villa Real School

*together we achieve*

# Design and Technology Policy 2024

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Date: June 2024

To be reviewed: June 2025

## INTRODUCTION

The development of Design Technology is an entitlement for all pupils/students within the School. DT is taught as a foundation subject to all pupils on Pathway 3 and 4, with those on Pathway 1 and 2 accessing via topic based learning, from 2-19 years. We aim to, wherever possible, link work to other disciplines such as Mathematics, Science, Computing and Art.

## DEFINITION

The teaching of Design Technology is undertaken throughout all phases of the School, both in time specifically allocated to the subject and across the curriculum.

This teaching aims to develop skills, promote the acquisition of knowledge and understanding and offer opportunities for experience in the area of investigating, planning, design, making and evaluation. A crucial element of the teaching is the identification, assessment and development of skills, knowledge and understanding and experiences, which are pre-requisite to those, identified in the National Curriculum statutory requirements.

For some pupils and students this requires a multi-sensory curriculum designed to enhance their experience of and ability to respond to learning situations and their environment, including other people. As well as using adapted equipment with an increasing degree of awareness and accuracy.

## SCOPE

This policy applies equally to all students and pupils in the School, with full consideration being given to each individual's specific needs in relation to the development of Design Technology.

As part of that process, advice and guidance is sought, where appropriate, from other professionals working in school in a peripatetic capacity - including speech therapists, occupational therapists, physiotherapists, educational psychologists and teachers specialising in the education of pupils and students with multiple disabilities and multi-sensory impairment (MSI) or complex and multiple learning difficulties. Visits form industry experts and bespoke training offers are also integral to the Design technology offer at Villa Real School. Teaching staff expertise is also shared and relevant training is undertaken and disseminated to other staff. Students identified as higher prior achievers are also extended and challenged by industry provided resources with open ended and investigative tasks.

## RATIONALE

The School recognises the importance of providing opportunities for the experience of Design Technology and the acquisition of skills, knowledge and understanding to as high a level as possible by each pupil/student in order to facilitate their overall cognitive and social development. We also try to ensure that all pupils and students are provided with the opportunities to freely express themselves as creatively as possible and value this self-expression as a form of visual communication. Our learners have a unique perspective of the world and are encouraged to see themselves as the innovators of the future,

enabling them to develop and test their own ideas and apply them to everyday life.

**HIGHER PREVIOUS ATTAINMENT**

Pupils who have been identified as having higher previous attainment will have specific strategies and interventions appropriately planned by the class manager and overseen by Senior Management to ensure that their specific needs are met. In addition, opportunities to complete open ended and investigative projects with industry provided materials and national participation in national competitions and specialist lectures from educational visits and visitors is also part of Villa Real's design and technology offer.

**ENTITLEMENT**

All pupils and students at Villa Real are entitled to Design Technology as part of the curriculum, which offers opportunities for the development of:

KNOWLEDGE, SKILLS AND UNDERSTANDING

Through a variety of creative and practical activities, we teach the knowledge, understanding and skills needed to engage in an interactive process of designing and making.

- Individually and in different groupings.
- At a level appropriate to individual needs, abilities and ages from the earliest stages to those skills, knowledge, understanding and experience necessary for independent living.
- Using a wide range of resources and materials appropriate to needs, abilities and age.

**BREADTH OF STUDY**

- Investigate using different kinds of design and technology
- Using a range of materials and processes
- ICT and the Internet.
- Understand the significance of local industrial heritage
- Appreciate the contribution of engineers and inventors from a variety of cultures and societies

**LEARNING ACROSS THE NATIONAL CURRICULUM**

Design Technology provides opportunities to promote

- Spiritual development
- Moral development
- Social development
- Cultural development

Design is also taught within cross curricular activities with other curriculum subjects as the transfer of skills and concepts facilitates learning and is an appropriate activity for pupils/students who are unable to read or write, this is particularly suitable for humanities and science work. In addition, British values are also visited as part of our strong Engineering and Industrial contributions to the World.

## KEY SKILLS

Design Technology can provide opportunities for pupils and students to develop the Key Skills of:

- Communication
- Application of number
- ICT
- Working with others
- Improving pupils'/students' own learning and performance
- Problem solving
- Literacy skills
- Innovation and creativity
- Growth mind-set
- Perseverance and determination
- Preparation for independent living
- Understanding of hygiene and safety
- Preparing nutritious food
- Using tools and equipment with increasing skill and accuracy

## PROMOTION OF OTHER ASPECTS OF THE CURRICULUM THROUGH DESIGN TECHNOLOGY

- Thinking skills
- Enterprise and entrepreneurial skills
- Work related learning
- Education for sustainable development
- Scientific enquiry
- Mathematical understanding
- Creativity and design
- Self-esteem and innovation
- Appreciation of industrial heritage
- Awareness of the contribution of British and international inventors
- Cooking nutritious and health food for enjoyment
- Coding and using ICT to automate

## AIMS

This school believes that the aim of the Design Technology curriculum is to enable each pupil and student to develop his/her full potential for:

- Making and justifying decisions.
- Tackling problems confidently.
- An awareness and understanding of themselves, their home, their environment and the world around them.
- Self-expression through design and technology including the development of leisure and recreational skills.
- A greater degree of independence.
- Self-advocacy i.e. the ability to make and communicate choices.

- Develop a robust understanding of the plan, design, make, test and evaluation process
- Raise self-esteem and confidence in abilities to visualise themselves as innovators of the future.

**REQUIREMENTS / EXPECTATIONS**

Each area of the Design Technology curriculum is taught throughout the School within levels dictated by the needs and abilities of individual pupils and students, and with regard to the age appropriateness of content and/or style. Individual levels of attainment in all areas will be monitored and recorded by class teachers using systems developed in school including B-Squared in both Engagement and Progression steps, books, files, practical work and evidence on Earwig.

Key Stages 4 and 5 access a Design Technology curriculum through accreditation and will be given the opportunity to gain qualifications in this area.
Where appropriate, class teachers will liaise with other professionals in developing effective and appropriate teaching/learning situations and monitoring individual progress. In addition, links with local schools will further enhance access to tools, materials and workshop environments.

The School provides the resources and opportunities for training necessary for teaching and non-teaching staff to put the policy into practice.
School based CPD time will be used to:

- Facilitate the standardisation and moderation of assessment and recording procedures.
- Share and develop teaching strategies and skills.
- Familiarise staff with available teaching resources.
- Upskill staff in latest developments and areas of Technology such as robotics and coding

Curriculum guidelines will accompany this policy to indicate the means by which the aims are put into effect and the requirements/expectations met.

**MORE ABLE**

Pupils/students who have been identified as More Able will have specific strategies and interventions appropriately planned by the class manager and overseen by Senior Management to ensure that their specific needs are met. In addition, industry provided resources will form the basis of open ended investigative tasks designed to challenge, motivate and engage enthusiasts.

**CONCLUSION**

This school believes that the teaching of Design Technology is important to the curriculum for our pupils and students. We are committed to providing full opportunities for each individual to achieve the aims described above. In addition it is important for each individual to value the rich and diverse local industrial heritage, as well as advancing their knowledge of inventors and innovators and visualising themselves as having the potential as future designers.

**LINKS**

Design technology is linked to other subjects, in particular Science, ICT, PSHCE, outdoor learning and their relevant policies. In particular, making links with industry and developing students and pupils' awareness of careers in the wider world within industry. Design technology is promoted to all students in accordance with 9 protected characteristics of equality and examples of innovators from a variety of cultures and society is experienced and available.