



The William Henry Smith School & Sixth Form

Design and Technology Policy

Policy Details

Status:	In-house
Frequency of review:	Annually
Lead member of staff:	Karl Adamski
Last reviewed:	Spring 2024
Next Review Date:	Spring 2025
Policy Number:	SES 3

1.0 Intent

Our school understands that D&T allows students to solve problems, think creatively and develop ideas. D&T offers students a chance to use creative thinking and activity within a defined purpose and tangible outcome. The school is committed to nurturing students' curiosity and creativity, as well as preparing them for living in a modern world where technology is rapidly changing and advancing.

2.0 In teaching D&T, we aim to help students:

- 2.1 Develop their design and making skills
- 2.2 Develop their knowledge and understanding of design and technologies
- 2.3 Use a wide range of tools and materials and learn about working safely and protective measures
- 2.4 Work individually and collaborate with other students in a variety of contexts
- 2.5 Develop the capability to create products of a high standard through skills and understanding
- 2.6 Evaluate products, made by themselves and their peers
- 2.7 Explore the man-made world through Engineering and Construction and encourage discussion of how we live and work within it
- 2.8 Develop an interest in and understanding of technological processes and the role of manufacturing
- 2.9 Learn the principles of nutrition, healthy eating and how to cook

3.0 Implementation

This policy has due regard to all relevant legislation and statutory guidance including, but not limited to the following:

- DfE (2018) 'Keeping children safe in education'
- DfE (2013) 'Design and technology programmes of study'

The teaching approach to Design and Technology will be based upon the five National Curriculum attainment targets of planning, designing, developing, communication, making and evaluating. Programmes of study will ensure that all aspects of National Curriculum criteria are covered, as required, through stages One to Five.

- 3.1 **Designing:** Students will be encouraged to express their ideas through a range of media using both 2D and 3D forms. Design work will include a grounding in the techniques of creative design and development, with a consideration of the production processes that can be used. Throughout the design process students will be encouraged to be aware of relevant social, economic, cultural and environmental issues.
- 3.2 **Making:** Making will put the design process to the test in concrete terms. Students will be encouraged to experience a range of materials and processes. Initially tasks will be designed to introduce the skills necessary to allow students to develop design ideas from a logical base. Constraints of time, resources, economics and their own practical ability will be highlighted at both class and individual levels in order to raise student awareness and ensure a successful outcome can be achieved. Interpersonal skills will be encouraged and developed through the sharing of workspace as appropriate and offering constructive criticism through the increased use of self and peer assessment techniques. Students will be further encouraged to develop an understanding of the

different properties of materials and so learn to identify when materials have been correctly used alternatively when a more appropriate material would have facilitated a more successful outcome. Throughout the school year the students will work on a resistant material project including Engineering and Construction, a food project including learning about healthy eating and cooking and a textiles project learning to use a sewing machine and using a heat press to design exciting products.

- 3.3 In all areas of Design and Technology emphasis will be placed on safety and the correct use of tools, equipment and materials. Tasks will be designed to achieve success at an early stage in order to promote motivation and develop self esteem
- 3.4 Teaching will be based on schemes of work that conform to the criteria of the National Curriculum at the various attainment levels. D&T will be taught through projects within the Cornerstone Curriculum.
- 3.5 Teaching will incorporate a variety of styles and methods ranging from whole class teacher directed to individual student choice. Students will be actively encouraged to develop problem solving skills through discussion, research and analysis. Students will be encouraged to work independently before asking for help and tasks will be differentiated to ensure students are more successful.
- 3.6 Due regard will be given to strategies for catering for the diverse needs of mixed ability groups.

Cooking and nutrition

As part of their work with food, students will be taught how to cook and apply the principles of nutrition and healthy eating. Learning to cook is a crucial life skill that enables students to feed themselves and others affordably and well, now and in later life.

Students will be provided with opportunities to:

- Use the basic principles of a healthy and varied diet to prepare dishes
- Understand where food comes from
- Understand and apply the principles of a healthy and varied diet
- Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques
- Understand seasonality and know where and how a variety of ingredients are grown, reared, caught and processed

- 3.7 In KS3, the students will work towards AQA awards in all areas of DT (food, technology and resilient materials).
- 3.8 In KS4, the students will also have the opportunity to complete a City & Guilds qualification. Entry Level 2/3 skills for working line. Woodwork and Entry Level 3 Certificate in Hospitality.

4.0 Health and Safety

- 4.1 The teaching of Design and Technology will comply with the requirements of the school's overall Health and Safety Policy. This requires an annual safety audit of Design and Technology teaching areas and student management within those areas, including the handling of any related equipment.

- 4.2 Staff will refer to current safety practice, safety regulations and statutory requirements in relation to the teaching of Design and Technology. All necessary documentation will be maintained by the Design and Technology facilitator.
- 4.3 Staff will ensure the safe storage and handling of all equipment.
- 4.4 In order to maximise their learning experience, pupils are allowed full access to a wide range of materials in D&T lessons; however, health and safety concerns are inherent with D&T, including storing materials and tools, and the use of equipment.
- 4.5 Gloves, head protection, eye protection and hearing protection is made available to all students and staff
- 4.6 Students are supervised at all times during D&T lessons. In order to maintain safe supervision D&T lessons will not exceed 10 pupils
- 4.7 Perishable food will be stored sensibly and refrigerated if necessary. Care must be taken by staff to ensure food is not used after the given sell by date
- 4.8 Educations staff will oversee that all cupboards, table tops and cookers are clean and in working order
- 4.9 Student allergies are taken into account

5.0 Resources

- 5.1 Resources will be progressively renewed, updated and expanded in order to provide the most comprehensive possible range of learning experiences, subject to the overall constraints of the school budget.
- 5.2 All Design and Technology equipment will be maintained to a safe standard.
- 5.3 Food technology resources will be kept in the Lifeskills room.
- 5.4 At the start of every school year the D&T facilitator will assess the school's D&T tools and materials to ensure there is sufficient equipment for all students.

6.0 Impact

- 6.1 Student progress will be continuously monitored throughout each key stage.

7.0 Recording

- 7.1 Student attainment will be recorded at intervals throughout each key stage as they complete each project.

Links to other parts of the curriculum

D&T contributes to the teaching of a number of other subjects in school.

English

D&T offers the opportunity to reinforce what students have been learning during English lessons. Discussion, drama and role-play are important methods that the school employs to help students develop an understanding of people's different views and opinions of D&T and society. Evaluating products requires students to articulate and formulate their ideas to compare their views with other students', through discussion students will learn to justify their own views and clarify their design ideas

Maths

D&T will assist students in learning about shape and size and will make use of what they have learnt during maths lessons. Students will carry out investigations – by doing this, they will learn to read and interpret scales, collect and present data, as well as draw on their own conclusions.

PSHE

D&T lessons will be used to teach students how to discuss their own work and the work of others; in addition, students will be taught about health and hygiene, including diets and how to prevent disease from spreading when working with food.

Spiritual, moral, social and cultural (SMSC) development

Teaching D&T offers opportunities to support the social development of students through the way they are expected to work with each other in lessons. D&T helps students to develop a respect for other students' abilities. Working in groups encourages collaboration and gives students the opportunity to learn from each other and share ideas and feelings.

ICT

ICT enhances the teaching of D&T and provides students with additional equipment, extending the possibilities for developing, sharing and recording their work.

Utilising ICT also benefits students helping them collect information and present their designs and ideas through a range of design and presentation software.

8.0 Reporting

8.1 Progress and attainment will be reported in accord with school policy.

9.0 Home-school links

9.1 Parents/carers will be encouraged to support the teaching of Design and Technology throughout the school.

10.0 School-industry links

10.1 Industry practices will be taught to pupils and current manufacturing methods will be taught.

11.0 The role of the Design and Technology Facilitator

11.1 To help and support other colleagues in the teaching of Design and Technology.

11.2 To liaise with teachers to prepare schemes and units of work.

11.3 To organise the storage and check the safety of Technology equipment.

11.4 To purchase equipment/stock and maintain an inventory of same.

11.5 To plan for development/progression through topics.

11.6 To advise on the induction and in-service training needs of teachers of Technology.

11.7 To ensure continuity in the teaching of Design and Technology both within the school and inter-school.

12.0 Policy Review

12.1 This policy will be reviewed and evaluated in line with the school's development plan.

12.2 Any changes to this policy will be communicated to all members of staff

12.3 All members of staff directly involved with the teaching of D&T are required to familiarise themselves with this policy

12.4 The scheduled review date for this policy is Summer Term 2023.