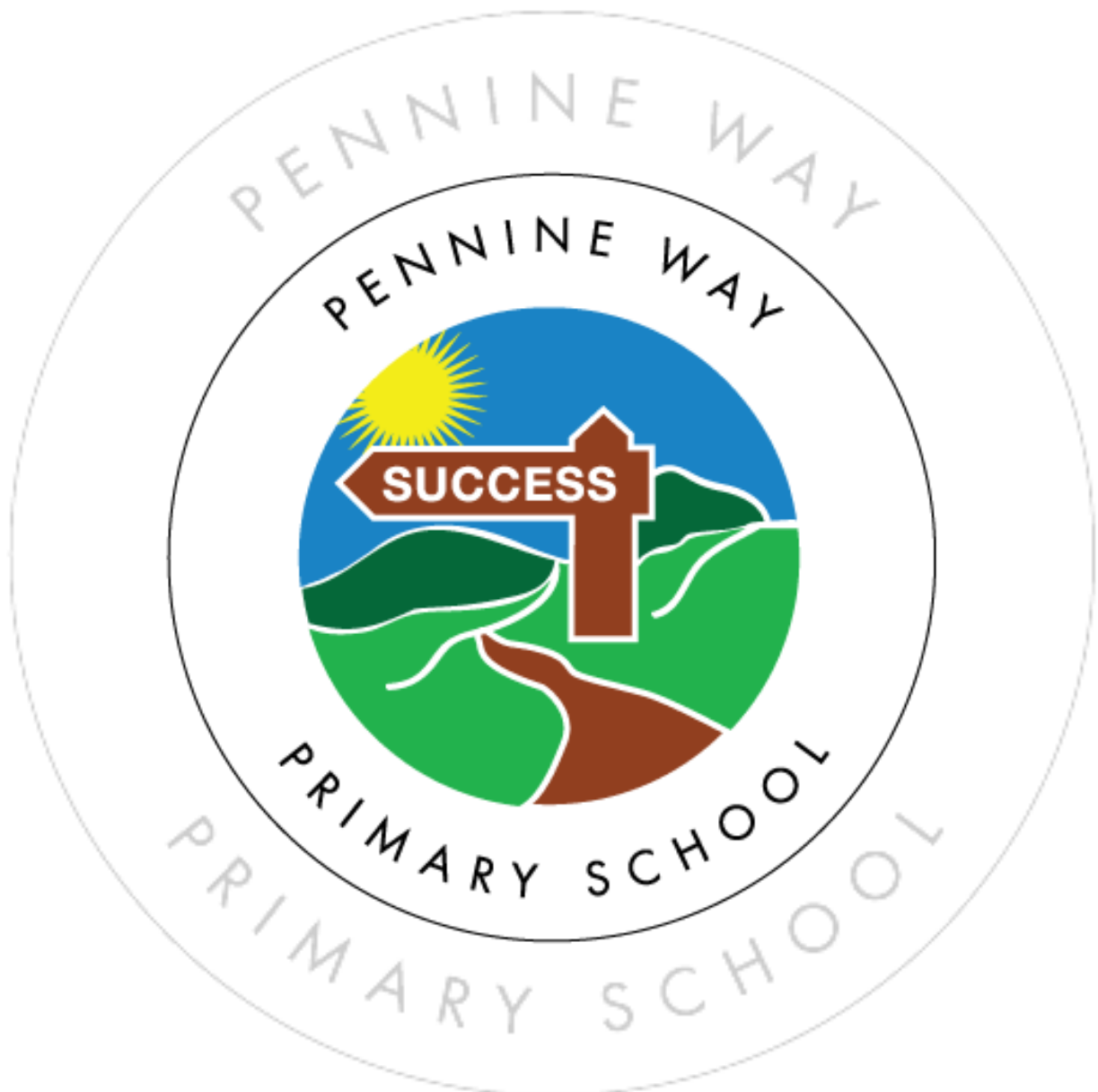


# Pennine Way Primary School



## Design and Technology Policy

## Contents:

### Statement of intent

1. [Legal framework](#)
2. [Early years foundation stage \(EYFS\)](#)
3. [KS1 – D&T](#)
4. [KS2 – D&T](#)
5. [Cooking and nutrition](#)
6. [Roles and responsibilities](#)
7. [Equal opportunities](#)
8. [Cross-curricular links – D&T](#)
9. [Cross-curriculaar links – Art and design](#)
10. [Health, safety and hygiene](#)
11. [Teaching and learning](#)
12. [Planning](#)
13. [Assessment and reporting](#)
14. [Resources and equipment](#)
15. [Monitoring and review](#)



## Statement of intent

### Mission Statement: Happiness is.....

Together as a team providing an exciting and challenging learning environment which maximises independence, resilience and potential for all; Being proud of who we are, celebrating the strengths and differences that we have, working together as responsible and caring members of society as we walk the Pennine Way Pathway to Success.

### Curriculum Intent

At Pennine Way Primary School the curriculum intent is one where students are enriched with the knowledge and the skills to create their own personal pathways, allowing them to question, to comprehend and to evaluate the whys of today and to predict, to plan for and to voice the what-ifs of tomorrow.

Pennine Way Primary School understands that art, design and D&T allow pupils to solve problems, think creatively and develop ideas. These subjects offer pupils a chance to use creative thinking and activity within a defined purpose and tangible outcome. Our school is committed to nurturing pupils' curiosity and creativity, as well as preparing them for living in a modern world where technology is rapidly changing and advancing.

By teaching D&T, we aim to help pupils:

- Develop their design and making skills.
- Develop their knowledge and understanding of design and technologies.
- Use a wide range of tools and materials.
- Learn about working safely and using protective measures.
- Work individually and collaborate with other pupils in a variety of contexts.
- Develop the capability to create products of a high standard through skills and understanding.
- Evaluate products, made by themselves, their peer groups and external companies.
- Explore the man-made world and encourage discussion of how we live and work within it.
- Develop an interest in and an understanding of technological processes and the role of manufacturing in society.
- Become creative thinkers and learners, exploring their ideas and recording their experiences.
- Learn the principles of nutrition, healthy eating and how to cook.

Signed by:

\_\_\_\_\_ Headteacher                      Date: \_\_\_\_\_

\_\_\_\_\_ Chair of governors                      Date: \_\_\_\_\_



## 1. Legal framework

- 1.1. This policy has due regard to statutory legislation, including, but not limited to, the following:
- DfE 'Statutory framework for the early years foundation stage' 2021
  - DfE 'Design and technology programmes of study: key stages 1 and 2' 2013

## 2. Early years foundation stage (EYFS)

- 2.1. All pupils in the EYFS are taught D&T as an integral part of the topic work covered during the academic year.
- 2.2. All D&T objectives within the EYFS are underpinned by the three prime areas outlined in the 'Statutory framework for the early years foundation stage':
- Communication and language
  - Physical development
  - Personal, social and emotional development
- 2.3. There are four specific areas through which the three prime areas are strengthened and applied – these are as follows:
- Literacy
  - Mathematics
  - Understanding the world
  - Expressive arts and design
- 2.4. The D&T curriculum in the EYFS has a particular focus on the specific areas of expressive arts and design and understanding the world.
- 2.5. In the EYFS, pupils will be taught to:
- Recognise that a range of technology is used in places such as at home and in schools.
  - Select and use technology for particular purposes.
  - Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.
  - Represent their own ideas, thoughts and feelings through D&T, art, music, dance, role-play and storytelling.
  - 
  - 
  -

### 3. KS1 – D&T

3.1. By the end of KS1, pupils will be taught to develop the abilities outlined in this section.

#### 3.2. **Design**

- To design purposeful, functional and appealing products for themselves and other users based on design criteria.
- To generate, develop, model and communicate their ideas through talking, drawing, templates and mock-ups and, where appropriate, information and communication technology.

#### 3.3. **Make**

- To select from and use a range of tools and equipment to perform practical tasks, e.g. cutting, shaping, joining and finishing.
- To select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.

#### 3.4. **Evaluate**

- To explore and evaluate a range of existing products.
- To evaluate their ideas and products against design criteria.

#### 3.5. **Technical knowledge**

- To build structures, exploring how they can be made stronger, stiffer and more stable.
- To explore and use mechanisms, e.g. levers, sliders, wheels and axles, in their products.

3.6. Through a variety of creative and practical activities, pupils will be taught the knowledge, understanding and skills needed to progress to KS2.

3.7. Pupils will work in a range of relevant contexts, e.g. the home, school, leisure, enterprise, industry and the wider environment.

### 4. KS2 – D&T

4.1. By the end of KS2, pupils will be taught to develop the abilities outlined in this section.

#### 4.2. **Design**

- To use, research and develop design criteria to inform the design of innovative, functional and appealing products that are fit for purpose, aimed at particular individuals or groups.

- To generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.

#### 4.3. **Make**

- To select from and use a wider range of tools and equipment to perform practical tasks accurately, e.g. cutting, shaping, joining and finishing.
- To select from and use a wider range of materials and components, including construction materials, textiles, and ingredients, according to their functional properties and aesthetic qualities.

#### 4.4. **Evaluate**

- To investigate and analyse a range of existing products.
- To evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.
- To understand how key events and individuals in D&T have helped shape the world.

#### 4.5. **Technical knowledge**

- To apply their understanding of how to strengthen, stiffen and reinforce more complex structures.
- To understand and use mechanical systems in their products, e.g. gears, pulleys, cams, levers, and linkages.
- To understand and use electrical systems in their products, e.g. series circuits incorporating switches, bulbs, buzzers and motors.
- To apply their understanding of computing to program, monitor and control their products.

### **5. Cooking and nutrition**

5.1. As part of their work with food, pupils should be taught how to cook and apply the principles of nutrition and healthy eating. Instilling a love of cooking in pupils will also open a door to one of the greatest expressions of human creativity. Learning how to cook is a crucial life skill that enables pupils to feed themselves and others affordably and well, now and in later life.

5.2. By the end of KS1, pupils will be taught to:

- Use the basic principles of a healthy and varied diet to prepare dishes.
- Understand where food comes from.

5.3. By the end of KS2, pupils will be taught to:

- 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.

## 6. Roles and responsibilities

6.1. The subject leader is responsible for:

- Preparing policy documents, curriculum plans and schemes of work for the subjects.
- Reviewing changes to the national curriculum and advising teachers on their implementation.
- Monitoring the learning and teaching of D&T, providing support for staff where necessary.
- Ensuring the continuity and progression from year group to year group.
- Encouraging staff to provide effective learning opportunities for pupils.
- Helping to develop colleagues' expertise in the subject.
- Organising the deployment of resources and carrying out an annual audit of all related resources.
- Liaising with teachers across all phases.
- Communicating developments in the subjects to all teaching staff and the senior leadership team (SLT), as appropriate.
- Leading staff meetings and providing staff members with the appropriate training.
- Organising, providing and monitoring CPD opportunities in the subjects.
- Ensuring common standards are met for recording and assessing pupil performance.
- Advising on the contribution of D&T to other curriculum areas, including cross-curricular and extra-curricular activities.
- Collating assessment data and setting new priorities for the development of D&T in subsequent years.

6.2. The classroom teacher(s) is/are responsible for:

- Acting in accordance with this policy.
- Ensuring progression of pupils' D&T skills, with due regard to the national curriculum.
- Planning lessons effectively, ensuring a range of teaching methods are used to cover the content of the national curriculum.
- Liaising with the subject leader about key topics, resources and support for individual pupils.
- Monitoring the progress of pupils in their class and reporting this to parents on an annual basis.



- Reporting any concerns regarding the teaching of the subjects to the subject leader or a member of the SLT.
- Undertaking any training that is necessary in order to effectively teach the subjects.

6.3. The special educational needs coordinator (SENCO) is responsible for:

- Liaising with the subject leader in order to implement and develop specialist D&T-based learning throughout the school.
- Organising and providing training for staff regarding the curriculum for pupils with special educational needs and disabilities (SEND).
- Advising staff how best to support pupils' needs.
- Advising staff on the inclusion of D&T objectives in pupils' individual education plans.
- Advising staff on the use of TAs in order to meet pupils' needs.

## 7. Equal opportunities

- 7.1. We are an inclusive school that ensures all pupils are provided with equal learning opportunities, regardless of social class, gender, culture, race, disability or learning difficulties.
- 7.2. In order to ensure pupils with SEND achieve to the best of their ability, outcomes are adapted and the delivery of the D&T curriculum is differentiated for these pupils.
- 7.3. The planning and organising of teaching strategies for each subject will be reviewed on a termly basis by the subject leader to ensure that no pupil is at a disadvantage.
- 7.4. The school aims to maximise the use and benefits of D&T as one of many resources to enable all pupils to achieve their full potential.

## 8. Cross-curricular links – D&T

DT will always be taught as a discrete subject with a focus on DT skills and knowledge. In addition to these discrete lessons, skills can be applied through the following areas.

### 8.1. English:

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

## 8.2. Maths:

- D&T will assist pupils in learning about shape and size and will make use of what they have already learned in maths lessons.
- Pupils will carry out investigations, and by doing this they will learn to read and interpret scales, collect and present data, as well as draw their own conclusions.

## 8.3. PSHE:

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

## 8.4. Spiritual, moral, social and cultural development (SMSC):

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

## 8.5. ICT:

- ICT enhances the teaching of D&T and provides pupils with additional equipment, extending the possibilities for developing, sharing and recording their work.
- Utilising ICT also benefits pupils by helping them collect information and present their designs and ideas through a range of design and presentation software.

## 9. Health, safety and hygiene

- 9.1. 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 these subjects, including storing materials and tools, and the use of equipment.
- 9.2. Equipment will be tested before the start of every lesson by the classroom teacher.
- 9.3. Pupils will be supervised at all times during D&T lessons. In order to maintain safe supervision.
- 9.4. All tools, such as glue guns, are checked by the subject leaders before use. It is also the duty of staff to recognise and assess the hazards and risks associated when working with food and other materials.

- 9.5. All pupils will be taught how to use all equipment properly by the classroom teacher before use; similarly, pupils will also be fully briefed on the importance of how to correctly use equipment and tools.
- 9.6. Pupils are only allowed to use a lower temperature glue gun under one-to-one supervision – an adult will use the glue gun at all other times.
- 9.7. Glue guns will be considered alongside all viable alternatives, such as adhesive tapes, blue tack and other fasteners, to ensure the most suitable materials are used for each project.
- 9.8. Perishable food will be stored sensibly and refrigerated if necessary. Care will be taken by teachers and TAs to ensure food is not used after the given sell-by date.
- 9.9. If any cooking or food preparation is taking place in the classroom, all surfaces will be cleaned before and after use.
- 9.10. Parent helpers will be supervised when cooking with groups of pupils.
- 9.11. Teachers and TAs will oversee that all cupboards, table tops and cookers are clean and in working order.
- 9.12. Correspondence will be sent to parents one week before cooking lessons to ensure pupils' allergies are taken into account.

## **10. Teaching and learning**

- 10.1. The school uses a variety of teaching and learning styles in D&T lessons. The main aim of these lessons is to develop pupils' knowledge, skills and understanding.
- 10.2. Teachers ensure pupils apply their knowledge and understanding when developing ideas, planning and making products, and then evaluating them.
- 10.3. The school uses a mixture of whole-class teaching, group work and individual activities. Pupils are given the opportunity to work on their own and collaborate with others, listening to their classmates' ideas and treating these with respect.
- 10.4. D&T lessons are delivered once every week, every other half term.
- 10.5. Principles for effective teaching include:
  - Setting tasks in the context of pupils' prior knowledge
  - Promoting active learning
  - Inspiring, exciting and motivating pupils to know more
- 10.6. Strategies for effective teaching include:

- Ensuring the teaching methods used suit the purpose and needs of the pupils
  - Providing a meaningful context and clear purpose when assigning tasks
  - Investigating, disassembling and evaluating activities
  - Using focussed practical tasks to help pupils make and evaluate products
  - Ensuring tasks are built on skills and understanding
- 10.7. The classroom teacher, in collaboration with the subject leader, will ensure that the needs of all pupils are met by:
- Setting tasks which can have a variety of responses.
  - Providing resources of differing complexity, according to the ability of the pupils.
  - Setting tasks of varying difficulty, depending on the ability group.
  - Utilising TAs to ensure that pupils are effectively supported.

## **11. Planning**

- 11.1. Planning of the D&T curriculum is focussed on creating opportunities for pupils to:
- Use a wide range of materials.
  - Produce creative work, explore their ideas and record their experiences.
  - Appreciate and understand the work of other artists and famous people.
  - Record their ideas and plan for larger pieces of work.
  - Learn how to gather and evaluate different materials.
  - Discuss ideas and planning with their peers.
  - See that their work is valued, celebrated and displayed around the school.
- 11.2. The school creates long-term and medium-term for the delivery of D&T curriculum – these are as follows:
- Long-term: includes the studies for each term during the key stage
  - Medium-term: includes the details of work studied each term.
- 11.3. The subject leader is responsible for reviewing long-term and medium-term plans.

- 11.4. All relevant staff members are briefed on the school's planning procedures as part of their staff training.
- 11.5. In our school, D&T is taught both as a discrete lesson and as part of cross-curricular themes when appropriate.
- 11.6. Teachers will use the key learning outlined in the DT curriculum maps and subject skills documents.
- 11.7. There will be a clear focus on direct, instructional teaching and interactive oral work with the whole class and targeted groups.
- 11.8. Long-term planning will be used to outline the units to be taught within each year group.
- 11.9. Medium-term plans will identify learning objectives, main learning activities and differentiation.
- 11.10. Medium-term plans will be shared with the subject leaders to ensure there is progression between years.
- 11.11. All lessons will have clear learning objectives, which are shared and reviewed with pupils.

## **12. Assessment and reporting**

- 12.1. Pupils will be assessed and their progression recorded in line with the school's Primary Assessment Policy.
- 12.2. An EYFS profile will be completed for each pupil in the final term of the year in which they reach age five.
- 12.3. The progress and development of pupils within the EYFS is assessed against the early learning goals outlined in the 'Statutory framework for the early years foundation stage'.
- 12.4. The progress and development of pupil skills within KS1 and KS2 is assessed against the descriptors outlined in the national curriculum
- 12.5. Assessment will be undertaken in various forms, including the following:
  - Talking to pupils and asking questions
  - Discussing pupils' work with them
  - Pupils' self-evaluation of their work
  - Teachers will also assess pupils':
    - Knowledge of tools, materials and equipment.
    - Ability to record and communicate their design ideas in a clear manner.
    - Personal qualities and attitudes towards their work.

- Ability to explain what they have created and how.
  - Ability to use tools and materials safely and effectively.
  - Ability to evaluate their work and the work of others.
- 12.6. Formative assessment, which is carried out informally throughout the year, enables teachers to identify pupils' understanding of subjects and inform their immediate lesson planning.
- 12.7. Parents will be provided with a written report about their child's progress every year. This will include information on pupils' attitudes towards D&T, understanding of methods, investigatory skills and the knowledge levels they have achieved.
- 12.8. Verbal reports will be provided at parent-teacher interviews during the Autumn and Spring terms.
- 12.9. The progress of pupils with SEND will be monitored by the SENCO.

### **13. Resources and equipment**

- 13.1. The school has a selection of centrally-stored materials, tools and equipment to ensure that all pupils have access to the necessary resources.
- 13.2. The art, design and D&T budget covers the cost of materials and replacement tools. Teachers will be required to maintain the tools and equipment in their classroom.
- 13.3. Pupils may occasionally be asked to bring materials from home if they can; however, to provide all pupils with the same opportunities, the school will provide for pupils who are unable to do this.
- 13.4. Food technology resources are kept in the resource room.
- 13.5. At the end of every school year, the subject leader, will assess the school's D&T tools and materials to ensure there is sufficient equipment for pupils, allowing funds to be allocated where necessary.

### **14. Monitoring and review**

- 14.1. This policy will be reviewed every two years by the subject leader and the headteacher.
- 14.2. Any changes made to this policy will be communicated to all members of staff.
- 14.3. All members of staff directly involved with the teaching of D&T are required to familiarise themselves with this policy.
- 14.4. The scheduled review date for this policy is September 2022.

