| | Design and Technology Policy | | |
|---|---|---|---|
| | **Member of staff responsible** | **Date Approved** | **Review Date** |
| | Lisa Fell | Spring 2025 | Spring 2027 |

# Intent

## Our Philosophy for Teaching Design and Technology

At Newton Village Academy, we believe that pupils should master Design and Technology skills through effective teaching of the key areas; design, make, evaluate, technical knowledge and cooking and nutrition.

Our intention is to inspire our pupils to be innovative and creative thinkers who have an appreciation for the product design cycle through ideation, creation and evaluation. We want our pupils to develop their confidence to take risks, through drafting design concepts, modelling and testing. We also want them to become reflective learners, who evaluate their work and the work of others.

We aim to build an awareness of the impact of design and technology on our lives and encourage our pupils to become resourceful, enterprising citizens who will have the skills to contribute to future design advancements both locally and on a national scale.

## National Curriculum

The national curriculum for design and technology aims to ensure that all pupils:

- 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.

The Design and technology national curriculum outlines the three main stages of the design process: design, make and evaluate. Each stage of the design process is underpinned by technical knowledge which encompasses the contextual, historical, and technical understanding required for each strand. Cooking and nutrition has a separate section, with a focus on specific principles, skills and techniques in food, including where food comes from, diet and seasonality.

The National Curriculum organises the Design and Technology attainment targets under five strands.

- Design
- Make
- Evaluate
- Technical knowledge
- Cooking and nutrition

## Our Curriculum

Our Design and Technology curriculum has been carefully planned to cover all of the National Curriculum aims through a structured, cyclical, sequence of key areas which are revisited every year to encourage a deepening and broadening of children's knowledge and skills. Our curriculum is organised into the following key areas:

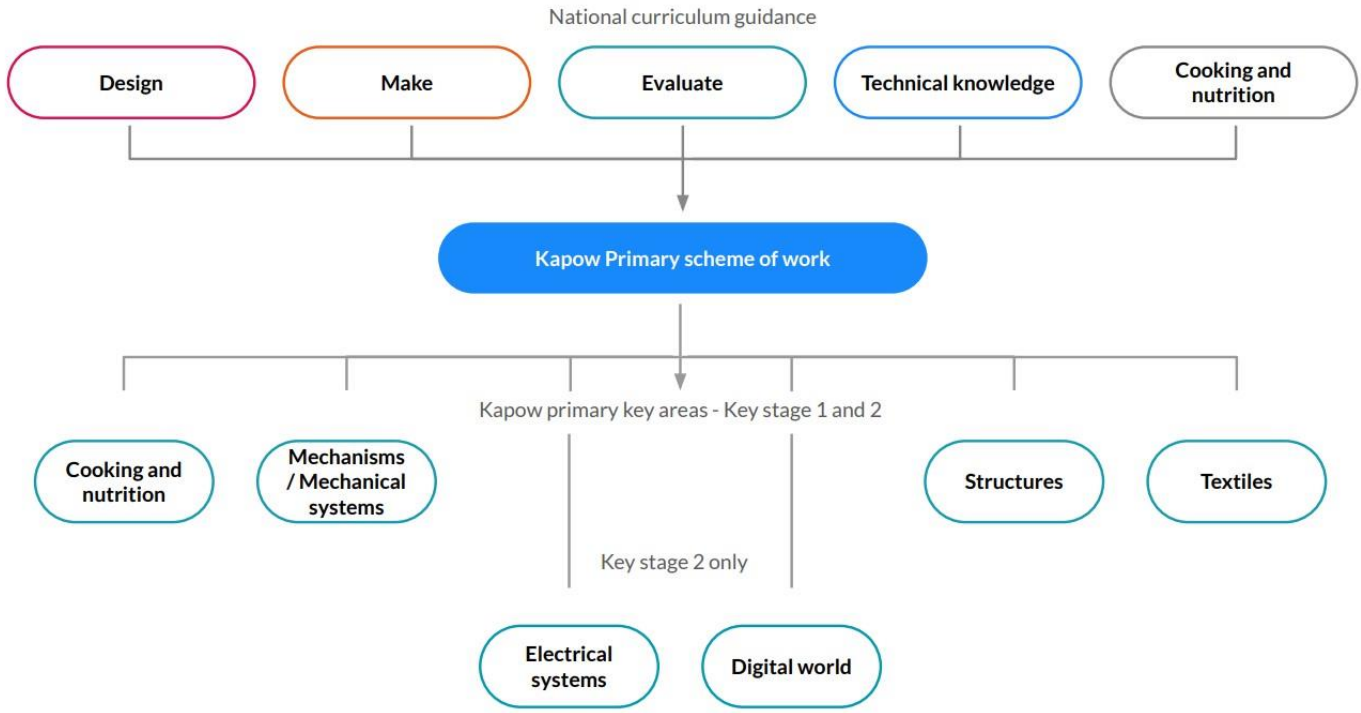
| | Key Stage 1 | Key Stage 2 |
|---|---|---|
| 1 | Structures | |

| | | | |
|---|---|---|---|
| 2 | Mechanisms and Mechanical Systems | | |
| 3 | Cooking and Nutrition | | |
| 4 | Textiles | Electrical Systems | Digital World |

# Implementation

## Curriculum Organisation

Our Design and Technology curriculum is organised into blocks with each block covering a particular area of design and technology including structures, mechanisms, cooking, textiles, electrical systems and digital world. Vertical progression in each discipline has been deliberately woven into the fabric of the curriculum so that pupils can revisit key disciplines throughout their Primary journey at increasing degrees of challenge and complexity.




Our pupils respond to design briefs and scenarios that require consideration of the needs of others which develop their skills in the above areas.

Each of our key areas follows the design process (design, make and evaluate) and has a particular theme and focus from the technical knowledge or cooking a nutrition section of the curriculum. Our curriculum is a spiral one with key areas revisited again and again with increasing complexity, allowing pupils to revisit and build on their previous learning.

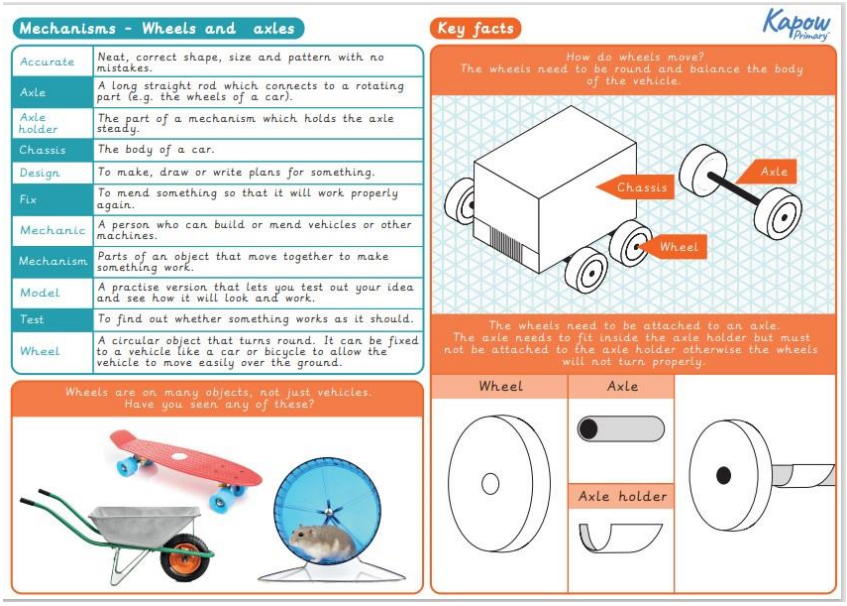
## Timetable

Four units of work are taught in each year group, and these are spaced so that Design and Technology is taught every term. The sessions are either taught on a weekly basis but are frequently taught within a block. This is decided by the teacher and is dependent on the topic content and length.

## Teaching & Learning Approach

Lessons incorporate a range of teaching strategies from independent tasks, paired and group work including practical hands-on, computer based and inventive tasks. The variety means that our lessons are engaging and appeal to those with a variety of teaching styles.

1. Knowledge organisers - This should be introduced at the start of lesson one so that pupils know what core knowledge and skills they will acquire and the technical vocabulary they will learn as the lessons progress. The knowledge organiser will be printed onto A3 paper and shared with the pupils at the start of every Design and Technology lesson.




2. Vocabulary – Activities are designed to help pupils develop the skills to talk about their own work, the techniques they have been using and the work of others and use appropriate vocabulary to do this meaningfully. Words have been selected that relate to the lesson content and support the broadening of pupils' understanding.

3. Lesson Activities – Each unit is developed over 4 sessions and children actively participate. Prior learning is drawn upon and is often a starting point to talk about when the area was last taught and what skills they previously learnt. Techniques and skills are taught sequentially, and the pupils work in books to aim to produce a final piece showcasing their new skills and understanding.

## Classroom Organisation

Design and Technology is taught either in the classroom or hall depending on which resources and how much space are required.

## Resources

All Design and Technology resources are stored in the 'Art/DT cupboard' and clearly labelled in a range of drawers. The subject leader listed all the required resources needed for each unit within each year group and ordered them accordingly. A note has been made of which resources are consumable and therefore would need to be ordered on a yearly basis.

## Provision for Lower and Higher Ability

Pupils needing support are quickly identified and interventions are put in place to give a mixture or additional adult support and peer support, as well as increased verbal and live feedback during the session – SEND section with more specific examples.

## Extra-Curricular Activities

A range of extra-curricular clubs are available for Reception, KS1 and KS2 pupils. The focus of these clubs is quite varied from cooking club , construction club, Lego club and STEM club. These clubs are well attended.

## EYFS

Through exploration of Design and Technology, pupils develop imaginatively and creatively. In Early Years at Newton Village Academy, pupils have regular opportunities to explore and create with different materials and express ideas through art.

The most relevant statements for DT are taken from the following areas of learning:

- Expressive Arts and Design

- Physical Development

Expressive Art and Design

| Three and Four-year-olds | Children in Reception | Early Learning Goals |
|---|---|---|
| • Make imaginative and complex 'small worlds' with blocks and construction kits, | • Explore, use and refine a variety of artistic effects to express their ideas and feelings. | • Safely use and explore a variety of materials, tools and techniques, |
| such as a city with different buildings and a park.<br>• Explore different materials freely, in order to develop their ideas about how to use them and what to make.<br>• Develop their own ideas and then decide which materials to use to express them.<br>• Create closed shapes with continuous lines, and begin to use these shapes to represent objects. | • Return to and build on their previous learning, refining ideas and developing their ability to represent them.<br>• Create collaboratively, sharing ideas, resources and skills. | experimenting with colour, design, texture, form and function.<br>• Share their creations, explaining the process they have used. |

Physical Development

| Three and Four-year-olds | Children in Reception | Early Learning Goals |
|---|---|---|
| • Use large-muscle movements to wave flags and streamers, paint and make marks.<br>• Choose the right resources to carry out their own plan.<br>• Use one-handed tools and equipment, for example, making snips in paper with scissors. | • Progress towards a more fluent style of moving, with developing control and grace.<br>• Develop their small motor skills so that they can use a range of tools competently, safely and confidently.<br>• Use their core muscle strength to achieve a good posture when sitting at a table or sitting on the floor. | • Use a range of small tools, including scissors, paintbrushes and cutlery. |

## Parents

We know how important parental involvement is in maximising our teaching and learning. Consequently, we keep parents up to date with their children's progress and involve parents as much as possible through:

- Sending information home regarding what the children have done in Design and Technology at school using 'Tapestry' and through posts on our social media sites.
- Individual children's progress and attainment is reported to parents termly through face to face meetings and an end of year report.
- Achievements in Design and Technology is celebrated in work of the month assemblies. Keeping parents up to date with our curriculum through newsletters and our website

## Transition to Secondary School

Our Design and Technology scheme of work was developed in liaison with the DT Subject Lead in our trust secondary school with a view to continuing and extending topics/themes developed in secondary school. Opportunities to complete elements of our DT curriculum are being planned to take place at our Secondary school to provide further transition but also so we can utilise the resources available within their designated DT department with specific class sets of resources. Annual meeting between the two members of staff is being encouraged both on the primary and secondary sites.

## Continuous Professional Development (CPD)

Strong subject knowledge is vital for staff to be able to deliver a highly effective and robust design and technology curriculum. Teachers are supported by lesson videos, with a specialist teacher showing all the required steps for the teacher to follow within each individual lesson.

In addition to this on-going CPD, we work very closely with our local secondary trust school and their DT/STEM subject leads. We have an 'DT Team' on 'Microsoft Teams' where staff collaborate, share ideas and organise CPD events for staff.

## Assessment

**Formative Assessment**

Assessment in design and technology takes account of all aspects of pupils' learning and achievement. This includes, not only what pupils make, but also how they make it, what skills they acquire and what they know about the tools and materials they use.
Pupils are asked to comment on how well they have met the design brief and to think clearly about if their product matches this. Self-evaluation is key in determining whether pupils have fully understood the task and if they can identify which elements were successful and if improvements were needed to be made, what and how this could be achieved.

**Summative**

Judgements are made about how well the pupil has achieved the unit objectives and these are recorded and placed onto a spreadsheet. These results are recorded to monitor attainment and progress through the year. The results are also used to assess which topic areas need more reinforcement and repetition.

# Impact

## Whole School Tracking

Assessment results are input into a tracking spreadsheet which enables teachers, subject leads and SLT to monitor progress and attainment on a half termly and annual basis, as well as tracking between key stages.

## Subject Monitoring

Progression of skills is monitored regularly through regularly reviewing and scrutinising children's work as well as organising discussions with children to talk about what they have learnt, understood, and remembered about what they have been taught. Lesson visits take place annually to monitor the quality of teaching and learning.

## Impact on the Children

Our children are very enthusiastic and enjoy learning in their design and technology lessons.

Their books include a very high level of work which has been produced and has been annotated with their thoughts and ideas included.

Designing skills are improving, the children are able to recall previous teaching and apply this to their current work.

DT work is celebrated around school and in the classrooms.

Extra-curricular art clubs are always full as children are keen to have further opportunities to explore.

Children leave school equipped with a range of skills to enable them to succeed in their secondary education and be innovative and resourceful members of society.