### NANTWICH PRIMARY ACADEMY and NURSERY

# PRINCIPAL - SUE SPENCE

# **Design and Technology Policy**





# Nantwich Primary Academy and Nursery Design and Technology Policy

DATE:	July 2022
REVIEW DATE:	July 2025

DATE	DETAILS	SIGNATURE
	Policy updated	
	Progression Map added	

## **Contents**

#### 1. INTENT

Why do we teach this? Why do we teach it in the way we do?

At Nantwich Primary Academy we aim to inpire pupils to be innovative and creative thinkers who have an appreciation for the product design cycle through ideation, creation, and evaluation. We want pupils to develop the confidence to take risks, through drafting design concepts, modelling, and testing and to be reflective learners who evaluate their work and the work of others. Through our scheme of work, we aim to build an awareness of the impact of design and technology on our lives and encourage pupils to become resourceful, enterprising citizens who will have the skills to contribute to future design advancements.

We endeavour to ensure that pupils meet the end of key stage attainment targets in the National curriculum. EYFS (Reception) units provide opportunities for pupils' to work towards the Development matters statements and the Early Learning Goals.

#### 2. IMPLEMENTATION

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 four subheadings: Design, Make, Evaluate, and Technical knowledge. At Nantwich Primary Academy, our chosen scheme of work uses these strands to structure curriculum delivery.

- Design
- Make
- Evaluate
- Technical knowledge

Cooking and nutrition is given a particular focus in the National curriculum and we have made this one of our six key areas that pupils revisit throughout their time in primary school:

- Cooking and nutrition
- Mechanisms/ Mechanical systems
- Structures

- Textiles
- Electrical systems (KS2 only)
- Digital world (KS2 only)

Our chosen scheme has a clear progression of skills and knowledge within these strands. Pupils respond to design briefs and scenarios that require consideration of the needs of others, developing their skills in the six key 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 and nutrition section of the curriculum. Nantwich Primary provides a spiral curriculum, with key areas revisited again and again with increasing complexity, allowing pupils to revisit and build on their previous learning.

Lessons incorporate a range of teaching strategies from independent tasks, paired and group work including practical hands-on, computer-based and inventive tasks. This variety means that lessons are engaging and appeal to those with a variety of learning styles. Differentiated guidance is available for every lesson to ensure that lessons can be accessed by all pupils and opportunities to stretch pupils' learning are available when required. Knowledge organisers for each unit support pupils in building a foundation of factual knowledge by encouraging recall of key facts and vocabulary.

Strong subject knowledge is vital for staff to be able to deliver a highly effective and robust Design and technology curriculum. Each unit of lessons includes multiple teacher videos to develop subject knowledge and support ongoing CPD.

#### 3. IMPACT

The impact of our scheme at Nantwich Primary can be constantly monitored through both formative and summative assessment opportunities. Each lesson includes guidance to support teachers in assessing pupils against the learning objectives. Furthermore, each unit has a unit quiz and knowledge catcher which is used at the start and end of the topic.

After the implementation our Design and technology curriculum at Nantwich Primary, pupils should 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.

The expected impact of following our scheme of work is that children will:

- Understand the functional and aesthetic properties of a range of materials and resources.
- Understand how to use and combine tools to carry out different processes for shaping, decorating, and manufacturing products.
- Build and apply a repertoire of skills, knowledge and understanding to produce high quality, innovative outcomes, including models, prototypes, CAD, and products to fulfil the needs of users, clients, and scenarios.

- Understand and apply the principles of healthy eating, diets, and recipes, including key processes, food groups and cooking equipment.
- Have an appreciation for key individuals, inventions, and events in history and of today that impact our world.
- Recognise where our decisions can impact the wider world in terms of community, social and environmental issues.
- Self-evaluate and reflect on learning at different stages and identify areas to improve.
- Meet the end of key stage expectations outlined in the National curriculum for Design and technology.
- Meet the end of key stage expectations outlined in the National curriculum for Computing.

#### 4. CULTURAL CAPITAL

How does our cultural capital offer reflect our school values and community?

The provision of life experiences for our children is very important at Nantwich Primary Academy. Through various opportunities we enhance the delivery of our curriculum and the lives of our children by inspiring them and building their curiosity to ultimately have a positive effect on their outlook on life. However, to specifically impact upon the life chances of our pupils, we aim to reduce the social inequalities in our society by developing the knowledge, tastes and attitudes of our children. We aim to ensure that they develop high cultural capital that will be valued by further education and future employers. In DT lessons at Nantwich Primary, we provide our children with valuable subject-specific knowledge and technical vocabulary. We strive to nurture and encourage enjoyment and creativity in lessons to enable our learners to apply their skills to solve problems. We teach them how designers, engineers, chefs and architects have provided solutions to problems and developed our world. We shine light on how design and technology skills and knowledge are essential to everyday life and critical to science and engineering. We empower our pupils to raise their aspirations and through the accumulation of skills and knowledge, prepare them for an exciting future.

#### 5. AMBITIOUS CURRICULUM

At Nantwich Primary Academy, we strive to inspire pupils to become innovative, creative thinkers with a strong appreciation for the product design cycle. Our ambitious Design & Technology curriculum focuses on ideation, creation, and evaluation, fostering risk-taking and reflective learning. We aim to develop resourceful, enterprising citizens with the skills to contribute to future design advancements. Our curriculum adheres to the National Curriculum's structure, encompassing Design, Make, Evaluate, and Technical Knowledge, with a particular emphasis on Cooking and Nutrition. We provide a spiral curriculum,

revisiting key areas with increasing complexity, while utilising a variety of teaching strategies to engage different learning styles. Pupils leave our school equipped with a range of skills for secondary education and as innovative, resourceful members of society. Our focus on cultural capital empowers students, preparing them for an exciting future while reducing social inequalities.

#### APPENDIX 1 - PROGRESSION MAP

