United Curriculum

Primary D&T and Food

Information for school websites

United Curriculum
Primary
Part of United Learning

United Curriculum Principles: DT & Food

The relationship between Design & Technology and Food

The National Curriculum is clear that Cooking & Nutrition is a discrete part of the Design & Technology curriculum. In one strand of D&T, the aims of the curriculum are to:

- 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.

But the aim of Cooking & Nutrition is distinct:

- Understand and apply the principles of nutrition and learn how to cook.

The purpose of the Food strand within Design & Technology is not to design dishes. While this is ultimately the skill of a chef, there is a huge amount of prerequisite knowledge that needs to be mastered before new dishes can be designed. Chefs need to know about nutrition and dietary requirements; equipment and techniques; source and characteristics of ingredients; an awareness of the principles of cooking (which Ashbee in *Curriculum: Theory, Culture and Subject Specialisms* (2021), describes as bases, thickening, reduction, seasoning, layering, topping, balance, contrast etc.); and a growing knowledge of tried-and-tested recipes. The knowledge that pupils are taught in Primary school should therefore focus more on this prerequisite knowledge – the basics of cooking and nutrition – and less on the design elements of the subject.

For this reason, we have a separate set of principles for Design & Technology and Food, and a separate set of sequencing documents to show how pupils will progress in each discipline.

The right balance of Design & Technology and Food

Historically, schools have tended to teach Food much less frequently than the rest of D&T and, when it is taught, Food has tended to include 'design' skills such as surveys, designing dishes. This limits the time available to explicitly teach aspects of Cooking & Nutrition.

The aim of the United Curriculum for Food is to ensure that all pupils leave primary school with the ability to cook a selection of healthy dishes using a variety of techniques, and to be able to make choices about what they eat based on values like source, seasonality, and nutritional value. These life skills are even more important in the context of rising obesity and climate change.

But the practical and conceptual knowledge of Food needs to be explicitly taught and practised, and so sufficient time needs to be allocated to it. Therefore, there is one Food unit per year, and two D&T units per year. This allows sufficient time for pupils to master the important Cooking & Nutrition skills, while ensuring there is still time to deliver all the required D&T.

United Curriculum Principles: D&T

The United Curriculum for Design & Technology provides all children, regardless of their background, with:

Substantive knowledge:

- Ensuring pupils **master** core content through the development of **conceptual knowledge** of structures, mechanisms, materials and programming in small steps, and the timely revisiting of this key knowledge.
- Ensuring that pupils are explicitly taught and have time to master **procedural knowledge**, including craftsmanship of cutting, shaping, joining and finishing as well as engineering in focused practical tasks.
- Making explicit and deliberate links to other curriculum subjects – particularly science – to ensure that pupils use and apply scientific concepts in a Design & Technology setting at the appropriate time. Pupils also draw on and further develop knowledge and skills first taught in Mathematics, History, Computing and Art & Design, due to the multi-disciplinary nature of Design & Technology.

Disciplinary knowledge:

- Reinforcing the **iterative design process** in the heart of every unit, and allowing pupils to build their understanding and ability to apply design values gradually from EYFS to Key Stage 2 and beyond.
- Ensuring that pupils know **they are designers and engineers**, who design a solution to fit a specific user and need; they are not led by outcomes. Pupils should be encouraged to design products using all of the knowledge they have developed across the curriculum.
- **Explicitly teaching** ways of designing, ways of generating ideas and ways of identifying user needs, to give pupils the tools they need to thrive as designers of the future.

Curiosity and excitement about the possibilities offered by Design & Technology:

- Ensuring that all pupils **can see themselves reflected** in the Design & Technology curriculum, by exploring the contributions made by a wide range of designers, past and present.
- Opportunities to **develop character** by understanding the difficulties faced by those designers and seeing how characteristics such as resilience and risk taking contributed towards success.
- Understanding the contribution that design and technology makes to creativity, culture, wealth and the well-being of a nation and that **more opportunities exist** than ever before due to technological advances.

United Curriculum Principles: Food

The United Curriculum for Food provides all children, regardless of their background, with:

Substantive knowledge:

- Ensuring pupils **master** core content through the development of **conceptual knowledge** of food sources, safety, hygiene and nutrition in small steps, and the timely revisiting of this key knowledge.
- Ensuring that pupils are explicitly taught and have time to master **procedural knowledge**, including cooking skills of chopping, preparing, combining and heating in focused practical tasks.
- Making explicit and deliberate links to other curriculum subjects – particularly science – to ensure that pupils use and apply scientific concepts, such as nutrition and food chains, in a Food setting at the appropriate time.

Disciplinary knowledge:

- Ensuring that pupils are taught how to make **food choices** based on qualities like nutritional value; dietary requirements; cost; seasonality; food miles and carbon footprint of production; time to prepare; and quantities. These qualities are introduced in small steps but applied cumulatively so that by Year 6, pupils are able to make decisions based on a selection of them.

The ability, and desire, to cook balanced, sustainable meals for themselves and their family:

- Ensuring that the recipes and foods chosen reflect relevant cuisines from the local context, the UK and around the world.
- Providing recipes that are balanced and sustainable, which can be cooked after school in a family context.

United Curriculum: D&T and Food

	N3-4	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Autumn			Food **Eat a Rainbow** [Aut2] Preparing a colourful fruit salad and crudites.	Food **Salads** [Aut2] Preparing healthy, balanced salads that include proteins.	**Picture Frames** [Aut1] Picture frames that would be made and sold in a commercial context.	Food **Soups** [Aut2] Cooking vegetables and grains and combining into healthy soups.	**Interactive Display** [Aut2] Interactive information display for a context decided by pupils.	**Head Coverings** [Aut1] Made to measure hats and head coverings for a context decided by pupils.
Spring			**Moving Pictures** Using simple linkages (levers) to make a moving picture for someone at home.	**Wheels & Axles** [Spr2] An engineering project to design a buggy that rolls straight and smoothly.	**Keeping it Contained** A solution for users who struggle to keep possessions safe in their bag.	**Pulleys** Using pulleys and levers to create a video that shares a message.	Food **Sauces** [Spr2] Building foundational cooking skills with a range of staple sauces.	**Sustainable Systems** [Spr1] Identifying a need and designing a sustainable solution at a system level.
Summer			**Outdoor Space** Designing an outdoor space and creating a 3D model to share the design.	**Glove Puppets** Creating props to tell a story to children in EYFS.	Food **Sandwiches and Packed Lunches** [Sum1] Making sandwiches with a balance of proteins fats & carbohydrates.	**Mood Lighting** [Sum2] Using nets and circuits to programme lighting.	**Flat Pack** Designing a flat pack toy or model that can be sold for construction by users.	Food **Savoury Snacks** [Sum1] Cooking and baking filled pastries and other balanced picnic snacks.

D&T in Our Local Context

D&T is taught in 6-lesson units, once a term (D&T alternates with Art).

The United Curriculum is sequenced so that meaningful links are made between subjects, and the order of units allows these connections to be made.

The United Curriculum for Design & Technology has been adapted for Sacred Heart by considering the context of our pupils and the community.

Alignment to the National Curriculum

The below tables outlines where the statutory content from the National Curriculum is first taught across KS1 or KS2.

In KS1, pupils should be taught:		
Design	Design purposeful, functional, and appealing products for themselves and other users based on design criteria.	Covered throughout D&T units.
	Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology.	
Make	Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing].	
	Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.	
Evaluate	Explore and evaluate a range of existing products.	
	Evaluate their ideas and products against design criteria	
Technical Knowledge	Build structures, exploring how they can be made stronger, stiffer and more stable	Y1 Sum, Y2 Spr (structures)
	Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.	Y1 Spr (levers/sliders), Y2 Spr (wheels/axles)
Cooking & Nutrition	Use the basic principles of a healthy and varied diet to prepare dishes.	Y1 Aut, Y2 Aut
	Understand where food comes from.	
In KS2, pupils should be taught:		
Design	Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups.	Covered throughout D&T units.
	Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design.	
Make	Select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately.	
	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.	
Evaluate	Investigate and analyse a range of existing products.	
	Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work.	
	Understand how key events and individuals in design and technology have helped shape the world.	
Technical Knowledge	Apply their understanding of how to strengthen, stiffen and reinforce more complex structures.	Y3 Aut, Y4 Spr, Y4 Sum, Y5 Sum
	Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages].	Y4 Spr, Y5 Aut
	Understand and use electrical systems in their products [e.g., series circuits incorporating switches, bulbs, buzzers and motors].	Y4 Sum, Y5 Aut
	Apply their understanding of computing to program, monitor and control their products.	Y4 Sum, Y5 Aut
Cooking & Nutrition	Understand and apply the principles of a healthy and varied diet.	Y3 Sum, Y4 Aut, Y5 Spr, Y6 Sum
	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.	

Implementation

The implementation of the United Curriculum for Design & Technology reflects our broader teaching and learning principles:

For Design & Technology in particular:

- Content is always carefully situated within existing schemas. Every unit considers the prior knowledge that is prerequisite for that unit and builds on that knowledge to develop a deeper understanding of that concept.
- Vertical concepts are used within lessons to connect aspects of learning.
- Disciplinary knowledge is explicitly taught to pupils and carefully sequenced to ensure pupils are provided with opportunities to practice these skills throughout the curriculum.
- Opportunities for extended, scholarly writing appear throughout the curriculum. These have a clear purpose and audience and, crucially, allow pupils to write as a technologist.

Impact

The careful sequencing of the curriculum – and how concepts are gradually built over time – is the progression model. If pupils are keeping up with the curriculum, they are making progress. Formative assessment is prioritised and is focused on whether pupils are keeping up with the curriculum.

In general, this is done through:

Books/products/floor books and pupil-conferencing

Talking to pupils about their work allows teachers to assess how much of the curriculum content is secure. These conversations are used most effectively to determine whether pupils have a good understanding of the vertical concepts, and if they can link recently taught content to learning from previous units.

- **Formative assessment in lessons**

There are opportunities for formative assessment in the lesson slides provided, and teachers continually adapt their lesson delivery to address misconceptions and ensure that pupils are keeping up with the content.

- **Low-stakes summative assessment**

We also use multiple-choice questions (or another low-stakes quiz) at the end of the unit to assess whether pupils have learned the core knowledge for that unit. These are used formatively, and teachers plan to fill gaps and address misconceptions before moving on.