



Design & Technology Long Term Curriculum Map

Year 1 – Year 9 (Key Stage 3), organised half-termly with statements grouped into three progression tiers.

EMERGING – first steps | **DEVELOPING** – building secure understanding | **SECURE** – confident and independent

Years 3/4 and 5/6 are taught on a rotating two-year cycle, and Key Stage 3 (Years 7–9) on a rotating three-year cycle, to suit mixed-age classes. Cycle units are shown beneath each half-term's topic.

Year 1

EMERGING – first steps | **DEVELOPING** – building secure understanding | **SECURE** – confident and independent

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Paper crafts / Sliders and levers	Paper crafts / Sliders and levers	Wood – joining wood / Wheels and axles	Wood – joining wood / Wheels and axles	Textiles – basic sewing techniques / Templates and joining techniques	Textiles – basic sewing techniques / Templates and joining techniques

Core skills — apply across the year

EMERGING

- I can make a simple plan before making.

DEVELOPING

- I can choose appropriate resources and tools.
- Food: I can cut food safely.

Topic-specific skills

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
DEVELOPING • I can use my own ideas to make something.	DEVELOPING • I can talk about my work and describe how things work. • I can describe how something works.	DEVELOPING • I can make a product which moves. • I can make my models stronger.	DEVELOPING • I can describe how something works.	DEVELOPING • I can use my own ideas to make something. • I can explain to someone else how I want to make a product.	DEVELOPING • I can use my own ideas to make something. • I can explain to someone else how I want to make a product.

Year 2

EMERGING – first steps | **DEVELOPING** – building secure understanding | **SECURE** – confident and independent

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1 & 2
Paper crafts / Sliders and levers	Paper crafts / Sliders and levers	Wood – joining wood / Wheels and axles	Wood – joining wood / Wheels and axles	Textiles – basic sewing techniques / Templates and joining techniques

Core skills — apply across the year

DEVELOPING

- I can think of an idea and plan what to do next.
- I can choose tools and materials and explain why I have chosen them
- I can explain what went well with my work.
- I can suggest what I could do better next time.
- FOOD: I can measure ingredients.
- I can describe the ingredients I am using.

Topic-specific skills

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1 & 2
—	—	DEVELOPING • I can measure materials to use in a model or structure.	DEVELOPING • I can join materials and components in different ways.	DEVELOPING • I can explain why I have chosen specific textiles. • I can join materials and components in different ways.

Year 3 / Year 4

EMERGING – first steps | **DEVELOPING** – building secure understanding | **SECURE** – confident and independent

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Mechanisms / (POP 3-4)	Electrical systems	Food (POP3-4)	Food (POP3-4)	packaging / (POPS 3-4)	Textiles / (POPS 3-4)
<i>Cycle 1: Pneumatics</i>	<i>Cycle 1: Simple circuits and switches</i>	<i>Cycle 1: Food healthy and varied diet</i>	<i>Cycle 1: Food healthy and varied diet</i>	<i>Cycle 1: Shell structures</i>	<i>Cycle 1: 2d shape to 3d products</i>
<i>Cycle 2: Levers and linkages</i>	<i>Cycle 2: simple programming and control</i>	<i>Cycle 2: OWN CHOICE / Food – using seasonal produce to make produce</i>	<i>Cycle 2: OWN CHOICE / Food – using seasonal produce to make produce</i>	<i>Cycle 2: shell structures CAD</i>	<i>Cycle 2: OWN CHOICE / Textiles – make a bag using same planning as above</i>

Core skills — apply across the year

DEVELOPING

- I can follow a step-by-step plan, choosing the right equipment and materials.
- I can produce a plan and explain it.
- I can select the most appropriate tools and techniques for a given task.
- I can evaluate my designs to show how they can be improved.
- I can evaluate and suggest improvements for my designs.
- I can explain how I have improved my original design.
- I can prove that my design meets some set criteria.
- I can evaluate products for both their purpose and appearance.
- I can work accurately to measure, make cuts and make holes.
- I can measure accurately
- I can use labelled sketches to show my ideas
- I can explain my ideas.
- I can use ideas from other people when I am designing.
- I can persevere and adapt my work when my original ideas do not work
- I can design a product and make sure that it looks attractive.
- I can present a product in an interesting way.

Topic-specific skills

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
—	DEVELOPING ● I can make a product which uses both electrical and mechanical components	DEVELOPING ● I can describe how food ingredients come together. ● I can measure accurately. I know how to be both hygienic and safe when using food ● I know that seasons may affect the food available	DEVELOPING ● I can describe how food ingredients come together. ● I can measure accurately. I know how to be both hygienic and safe when using food ● I know that seasons may affect the food available	—	DEVELOPING ● I can choose a textile for both its suitability and its appearance.

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
		● I know how food is processed into ingredients that can be eaten or used in cooking	● I know how food is processed into ingredients that can be eaten or used in cooking		

Year 5 / Year 6

EMERGING – first steps | **DEVELOPING** – building secure understanding | **SECURE** – confident and independent

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Mechanisms / (POP 5-6)	Wood / (POP 5-6)	Food / (POP 5-6)	Food / (POP 5-6)	Textiles / (POP 5-6)	Textiles / (POP 5-6)
<i>Cycle 1: Cams</i>	<i>Cycle 1: Frame structures</i>	<i>Cycle 1: Celebrating culture and seasonality</i>	<i>Cycle 1: Celebrating culture and seasonality</i>	<i>Cycle 1: Combining different fabric shapes</i>	<i>Cycle 1: Combining different fabric shapes</i>
<i>Cycle 2: Pulleys or gears</i>	<i>Cycle 2: CAD design</i>	<i>Cycle 2:</i>	<i>Cycle 2:</i>	<i>Cycle 2: Computer aided design</i>	<i>Cycle 2: Computer aided design</i>

Core skills — apply across the year

DEVELOPING

- I show that I can be both hygienic and safe in the kitchen.
- I can use a range of tools and equipment competently.
- I can work within a budget.
- I can explain how products should be stored and give reasons.
- I can follow and refine my plans.
- I can evaluate appearance and function against original criteria.
- I show that I can test and evaluate my products.
- I can evaluate my product against clear criteria.
- I can suggest alternative plans; outlining the positive features and draw backs.
- I can justify my plans in a convincing way
- I can explain how a product will appeal to a specific audience.
- I can show that I consider culture and society in my plans and designs
- I can make a prototype before I make a final version.
- I can come up with a range of ideas after collecting information from different sources.
- I can use market research to inform my plans and ideas.

SECURE

- I can produce a detailed, step-by-step plan

Key Stage 3 (Year 7 – 9)

EMERGING – first steps | **DEVELOPING** – building secure understanding | **SECURE** – confident and independent

Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Cooking - diet and nutrition	Cooking - diet and nutrition	Systems and control	Systems and control	Product design	Textiles
<i>Cycle 1: Practical skills building (8hrs) / Design for health (5 hrs)</i>	<i>Cycle 1: Practical skills building (8hrs) / Design for health (5 hrs)</i>	<i>Cycle 1: Mobile phone (2 hrs) / Dusk lights on (5 hrs)</i>	<i>Cycle 1: Mobile phone (2 hrs) / Dusk lights on (5 hrs)</i>	<i>Cycle 1: Analyse that (2 hrs) / ECO design (2 hrs)</i>	<i>Cycle 1: Understanding fibres and fabrics (8hrs)</i>
<i>Cycle 2: Catering for needs (2hrs)/ future foods (2 hrs) / Chilled ready meals (4 hrs)</i>	<i>Cycle 2: Catering for needs (2hrs)/ future foods (2 hrs) / Chilled ready meals (4 hrs)</i>	<i>Cycle 2: Music players (2hrs) / Moody lights (8hrs)</i>	<i>Cycle 2: Music players (2hrs) / Moody lights (8hrs)</i>	<i>Cycle 2: Learning to learn / (6 - 8 hrs)</i>	<i>Cycle 2: Festival headgear / (8 hrs)</i>
<i>Cycle 3: Multicultural meals for mates (2hrs) / Event food (6hrs)</i>	<i>Cycle 3: Multicultural meals for mates (2hrs) / Event food (6hrs)</i>	<i>Cycle 3: Touch torch (12 hrs)</i>	<i>Cycle 3: Touch torch (12 hrs)</i>	<i>Cycle 3: Lanterns (6- 8 hrs)</i>	<i>Cycle 3: Textile entrepreneurs (7hrs)</i>

Ongoing Skills

These skills run throughout every KS3 project, with progression tracked from Year 7 through to Year 9.

Evaluating existing products and research

EMERGING

- My development work uses a mixture of sketches and labels to show information about research and its influence on the developments.
- I can explain how the images were sourced and how they could be used in my design
- I can find images of existing products and other from a range of sources that are relevant to my task.
- I can consider the influences of key individuals from the food, construction and textile industries on their personal design

DEVELOPING

- My development work uses a mixture of sketches and annotation to show information about research and its influence on the developments.
- I can investigate and analyse existing products including food, construction materials and textiles.

SECURE

- I can understand developments in design and technology, its impact on individuals, society and the environment, and the responsibilities of designers, engineers and technologists
- I can investigate and analyse a range of existing products and apply their findings to their design
- I can consider the influence and impact of key individuals from the food, construction and textile industries on product design
- I can confidently complete simple tests on the effectiveness of the design and product

Design stage

EMERGING

- I can identify a way of making my work look and work better when considering my design specification
- I can develop detailed design specifications based on user choice, communicate ideas through discussion, annotated sketches and prototypes
- I can design a product for a specific user based on personal design criteria that is fit for purpose.
- I can add some detail, annotation and render to a design solution

DEVELOPING

- I can identify different ways of making my work look and work better when considering my design specification.
- I can explain ingredients, components and their functions within a design.
- I can use and develop detailed design specifications to inform the design of innovative, functional and appealing products, aimed at particular individuals or groups.
- I can identify and solve simple design problems and take creative risks

SECURE

- I can use research and develop design criteria to inform the design to ensure it is fit for purpose
- I can develop specifications to inform the design of innovative, functional, appealing products that respond to needs in a variety of situations
- I can design a well-constructed product fit for purpose.
- I can generate a range of rendered design solutions, with annotation and dimension

Making stage

EMERGING

- I can select from and use a wider, more complex range of materials, components and ingredients, taking into account their properties, their functional properties and aesthetic qualities
- I have produced a product which is mainly finished and use two or more skills and can identify at least two quality checks for my practical work.
- I can work independently during my practical lessons.

DEVELOPING

- I can produce a product which has a good level of making that shows I have followed the processes.
- I have worked independently during my practical lessons.

SECURE

- I can investigate new and emerging technologies
- I can select from and use specialist tools, techniques, processes, equipment and machinery precisely, including computer-aided manufacture
- I can independently make adjustments and modifications throughout the design and making process

Evaluation stage

EMERGING

- I can identify what is working well and what could be improved in both the design and making process
- I can think about and reflect upon the research and say where my product is successful and not-so successful.

DEVELOPING

- I can identify what is working well and what could be improved in both the design and making process.
- I can think about and reflect upon the research and say where my product is successful and not-so successful.

SECURE

- I can test, evaluate and refine their ideas and products against a specification, taking into account the views of intended users and other interested groups
- I can use research and exploration, such as the study of different cultures, to identify and understand user needs

Subject-Specific KPIs by Topic

Progression through each half-termly topic area, Year 7 through to Year 9.

Autumn 1 Cooking - diet and nutrition	Autumn 2 Cooking - diet and nutrition	Spring 1 Systems and control	Spring 2 Systems and control	Summer 1 Product design	Summer 2 Textiles
EMERGING - To develop basic knowledge and understanding of ingredients and healthy eating. DEVELOPING - To develop knowledge and understanding of food and nutrition based upon the Eatwell guide SECURE - To extend their knowledge and understanding of food, diet and health. EMERGING - To develop basic knowledge of food provenance and how it's used within the diet. DEVELOPING - To deepen knowledge of food provenance and how it's used within the diet. SECURE - To independently apply knowledge and understanding of food provenance and consumer information in meal planning. EMERGING - To demonstrate a range of basic food preparation and cooking techniques using a variety of food sources with support. DEVELOPING	EMERGING - To develop basic knowledge and understanding of ingredients and healthy eating. DEVELOPING - To develop knowledge and understanding of food and nutrition based upon the Eatwell guide SECURE - To extend their knowledge and understanding of food, diet and health. EMERGING - To develop basic knowledge of food provenance and how it's used within the diet. DEVELOPING - To deepen knowledge of food provenance and how it's used within the diet. SECURE - To independently apply knowledge and understanding of food provenance and consumer information in meal planning. EMERGING - To demonstrate a range of basic food preparation and cooking techniques using a variety of food sources with support. DEVELOPING	EMERGING - I can develop different ideas using information and research that I have found out SECURE - I can develop a range of different ideas using information and research that I have found out. EMERGING - I can use simple research data in my design work e.g. materials information, sizes etc. SECURE - I can use simple research data in my design work e.g. materials information, sizes etc.	EMERGING - I can develop different ideas using information and research that I have found out SECURE - I can develop a range of different ideas using information and research that I have found out. EMERGING - I can use simple research data in my design work e.g. materials information, sizes etc. SECURE - I can use simple research data in my design work e.g. materials information, sizes etc.	EMERGING - I can produce a product which has a fair level of making that shows I have followed the processes. SECURE - To know how to design a product for a specific user based on design criteria with support.	EMERGING - I can find images of existing products and other relevant themes from a range of sources that are relevant to my task. DEVELOPING - I can analyse existing products being able to identify strengths and weaknesses of products. SECURE - I can analyse the work of past and present professionals and others to develop and broaden their understanding

Autumn 1 Cooking - diet and nutrition	Autumn 2 Cooking - diet and nutrition	Spring 1 Systems and control	Spring 2 Systems and control	Summer 1 Product design	Summer 2 Textiles
● To demonstrate a range of basic food preparation and cooking techniques using a variety of food sources with independence. SECURE ● To extend food preparation skills and explore a range of food sources, cooking techniques demonstrating confidence, creativity and independence. EMERGING ● To demonstrate the basic principles of simple food hygiene and safety. DEVELOPING ● To develop and demonstrate knowledge and understanding of food hygiene, food poisoning and safety SECURE ● To independently apply knowledge of food hygiene, food safety and food poisoning knowledge within food preparations. EMERGING ● To develop knowledge of consumer choice in relation to making simple meals. DEVELOPING ● To develop and apply knowledge an understanding of consumer choice to basic meal planning. SECURE ● To independently extend and apply their	● To demonstrate a range of basic food preparation and cooking techniques using a variety of food sources with independence. SECURE ● To extend food preparation skills and explore a range of food sources, cooking techniques demonstrating confidence, creativity and independence. EMERGING ● To demonstrate the basic principles of simple food hygiene and safety. DEVELOPING ● To develop and demonstrate knowledge and understanding of food hygiene, food poisoning and safety SECURE ● To independently apply knowledge of food hygiene, food safety and food poisoning knowledge within food preparations. EMERGING ● To develop knowledge of consumer choice in relation to making simple meals. DEVELOPING ● To develop and apply knowledge an understanding of consumer choice to basic meal planning. SECURE ● To independently extend and apply their				

Autumn 1 Cooking - diet and nutrition	Autumn 2 Cooking - diet and nutrition	Spring 1 Systems and control	Spring 2 Systems and control	Summer 1 Product design	Summer 2 Textiles
knowledge of consumer choice to family meal planning. EMERGING ● To demonstrate creativity through some practical cooking activities with support. DEVELOPING ● To develop creativity, technical and practical skills through a range of practical cooking activities with some independence. SECURE ● To independently demonstrate with confidence creativity, technical skills and practical skills through a range of practical cooking activities. EMERGING ● To apply basic of knowledge, understanding and skills to create simple dishes for a chosen person/ carer or family with support DEVELOPING ● To build and apply a range of knowledge, understanding and skills in order to create and make recipes and dishes for a wide range of people SECURE ● To build and apply an expanding repertoire of knowledge, understanding and skills in order to create and make high quality dishes for a wide range of people	knowledge of consumer choice to family meal planning. EMERGING ● To demonstrate creativity through some practical cooking activities with support. DEVELOPING ● To develop creativity, technical and practical skills through a range of practical cooking activities with some independence. SECURE ● To independently demonstrate with confidence creativity, technical skills and practical skills through a range of practical cooking activities. EMERGING ● To apply basic of knowledge, understanding and skills to create simple dishes for a chosen person/ carer or family with support DEVELOPING ● To build and apply a range of knowledge, understanding and skills in order to create and make recipes and dishes for a wide range of people SECURE ● To build and apply an expanding repertoire of knowledge, understanding and skills in order to create and make high quality dishes for a wide range of people				

