



KS 1/2

# Design Technology Learning Journey

2026

2025

2024

2023

2022

2021

Identify and solve their own design problems and understand how to reformulate problems given to them

Understand and use the properties of materials and the performance of structural elements to achieve functioning solutions

Understand how more advanced electrical and electronic systems can be powered and used in their products [for example, circuits with heat, light, sound and movement as inputs and outputs]

Test, evaluate and refine their ideas and products against a specification, taking into account the views of intended users and other interested groups

Understand how more advanced electrical and electronic systems can be powered and used in their products [for example, circuits with heat, light, sound and movement as inputs and outputs]

Develop specifications to inform the design of innovative, functional, appealing products that respond to needs in a variety of situations

Apply their understanding of computing to program, monitor and control their products

Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology

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

How did WW2 change everyday life in London?

Are rivers important for survival?

What was life like in medieval times?

When did Hendon thrive the most?

Would you like to live near the equator?

Would you like to holiday in Hendon during the Victorian times?

What is the difference between the weather and climate?

How was life different when Queen Victoria ruled?

Where in the world are you?

Test, evaluate and refine their ideas and products against a specification, taking into account the views of intended users and other interested groups

Develop specifications to inform the design of innovative, functional, appealing products that respond to needs in a variety of situations

Analyse the work of past and present professionals and others to develop and broaden their understanding

Identify and solve their own design problems and understand how to reformulate problems given to them

Understand and use the properties of materials and the performance of structural elements to achieve functioning solutions

Understand how key events and individuals in design and technology have helped shape the world

Explore and evaluate a range of existing products and evaluate their ideas and products against design criteria

Evaluate their ideas and products against their own design criteria and consider the views of others to improve their

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

Use a variety of approaches [for example, biomimicry and user-centred design], to generate creative ideas and avoid stereotypical responses

How high can I travel on Earth?

How does it feel to be part of a carnival?

How does it feel to be part of a carnival?

Could you survive in a rainforest?

How has history changed the way we celebrate?

How has history changed the way we celebrate?

How has history changed the way we celebrate?

How has history changed the way we celebrate?

Investigate new and emerging technologies

Understand developments in design and technology, its impact on individuals, society and the environment, and the responsibilities of designers, engineers and technologists

Understand how more advanced mechanical systems used in their products enable changes in movement and force

Understand how more advanced mechanical systems used in their products enable changes in movement and force

Understand developments in design and technology, its impact on individuals, society and the environment, and the responsibilities of designers, engineers and technologists

Design purposeful, functional, appealing products for themselves and other users based on design criteria

Apply their understanding of how to strengthen, stiffen and reinforce more complex structures

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Apply their understanding of how to strengthen, stiffen and reinforce more complex structures

Select from and use a wider, more complex range of materials, components and ingredients, taking into account their properties

How do different countries and religions celebrate?

Can you travel the whole way around the world?

Can you travel the whole way around the world?

How does it feel to be part of a carnival?

Would you like to live in Kenya?

How has history changed the way we celebrate?

How has history changed the way we celebrate?

How has history changed the way we celebrate?

Select from and use a wider, more complex range of materials, components and ingredients, taking into account their properties

How are skills from the iron/stone age still used today?

Are the Pyramids of Giza an important part of world history?

Are the Pyramids of Giza an important part of world history?

Did the Vikings change our world?

Why was the year 1666 important to London?

Why was the year 1666 important to London?

What makes a person significant?

What makes a person significant?

Apply computing and use electronics to embed intelligence in products that respond to inputs [for example, sensors], and control outputs [for example, actuators], using programmable components [for example, microcontrollers].

How are skills from the iron/stone age still used today?

Could you survive in the desert?

Could you survive in the desert?

Did the Vikings change our world?

Why was the year 1666 important to London?

Why was the year 1666 important to London?

What makes a person significant?

What makes a person significant?

Identify and solve their own design problems and understand how to reformulate problems given to them

Test, evaluate and refine their ideas and products against a specification, taking into account the views of intended users and other interested groups

Understand how more advanced electrical and electronic systems can be powered and used in their products [for example, circuits with heat, light, sound and movement as inputs and outputs]

Understand and use the properties of materials and the performance of structural elements to achieve functioning solutions

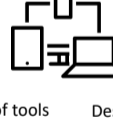
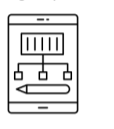
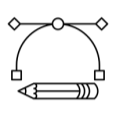
Explore and evaluate a range of existing products and evaluate their ideas and products against design criteria

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

Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology

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

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



# KS 3/4

## Design Technology Learning Journey



### 2026

**How did WW2 change everyday life in London?**

Identify and solve their own design problems and understand how to reformulate problems given to them

Test, evaluate and refine their ideas and products against a specification, taking into account the views of intended users and other interested groups

Select from and use specialist tools, techniques, processes, equipment and machinery precisely, including computer-aided manufacture

Use a variety of approaches [for example, biomimicry and user-centred design], to generate creative ideas and avoid stereotypical responses

Investigate new and emerging technologies

Understand developments in design and technology, its impact on individuals, society and the environment, and the responsibilities of designers, engineers and technologists

Select from and use a wider, more complex range of materials, components and ingredients, taking into account their properties

Apply computing and use electronics to embed intelligence in products that respond to inputs [for example, sensors], and control outputs [for example, actuators], using programmable components [for example, microcontrollers].

Identify and solve their own design problems and understand how to reformulate problems given to them

### 2025

**Are rivers important for survival?**

Understand and use the properties of materials and the performance of structural elements to achieve functioning solutions

Develop specifications to inform the design of innovative, functional, appealing products that respond to needs in a variety of situations

Analyse the work of past and present professionals and others to develop and broaden their understanding

How high can I travel on Earth?

Understand how more advanced mechanical systems used in their products enable changes in movement and force

How do different countries and religions celebrate?

Use research and exploration, such as the study of different cultures, to identify and understand user needs

How are skills from the iron/stone age still used today?

Develop and communicate design ideas using annotated sketches, detailed plans, 3-D and mathematical modelling, oral and digital presentations and computer-based tools

Test, evaluate and refine their ideas and products against a specification, taking into account the views of intended users and other interested groups

### 2024

**When did Henson thrive the most?**

Understand how more advanced electrical and electronic systems can be powered and used in their products [for example, circuits with heat, light, sound and movement as inputs and outputs]

Select from and use a wider, more complex range of materials, components and ingredients, taking into account their properties

Develop and communicate design ideas using annotated sketches, detailed plans, 3-D and mathematical modelling, oral and digital presentations and computer-based tools

How does it feel to be part of a carnival?

Understand developments in design and technology, its impact on individuals, society and the environment, and the responsibilities of designers, engineers and technologists

Can you travel the whole way around the world?

Use a variety of approaches [for example, biomimicry and user-centred design], to generate creative ideas and avoid stereotypical responses

Are the Pyramids of Giza an important part of world history?

Select from and use specialist tools, techniques, processes, equipment and machinery precisely, including computer-aided manufacture

Understand how more advanced electrical and electronic systems can be powered and used in their products [for example, circuits with heat, light, sound and movement as inputs and outputs]

### 2023

**Would you like to live near the equator?**

Understand how more advanced electrical and electronic systems can be powered and used in their products [for example, circuits with heat, light, sound and movement as inputs and outputs]

Identify and solve their own design problems and understand how to reformulate problems given to them

Apply computing and use electronics to embed intelligence in products that respond to inputs [for example, sensors], and control outputs [for example, actuators], using programmable components [for example, microcontrollers].

How does it feel to be part of a carnival?

Understand how more advanced mechanical systems used in their products enable changes in movement and force

Did the Vikings change our world?

Use research and exploration, such as the study of different cultures, to identify and understand user needs

Develop and communicate design ideas using annotated sketches, detailed plans, 3-D and mathematical modelling, oral and digital presentations and computer-based tools

Identify and solve their own design problems and understand how to reformulate problems given to them

### 2022

**Would you like to holiday in London during the Victorian times?**

Identify and solve their own design problems and understand how to reformulate problems given to them

Test, evaluate and refine their ideas and products against a specification, taking into account the views of intended users and other interested groups

Apply computing and use electronics to embed intelligence in products that respond to inputs [for example, sensors], and control outputs [for example, actuators], using programmable components [for example, microcontrollers].

How has history changed the way we celebrate?

Understand developments in design and technology, its impact on individuals, society and the environment, and the responsibilities of designers, engineers and technologists

Would you like to live in Kenya?

Use a variety of approaches [for example, biomimicry and user-centred design], to generate creative ideas and avoid stereotypical responses

Why was the year 1666 important to London?

Select from and use specialist tools, techniques, processes, equipment and machinery precisely, including computer-aided manufacture

Test, evaluate and refine their ideas and products against a specification, taking into account the views of intended users and other interested groups

### 2021

**What is the difference between weather and climate?**

Understand and use the properties of materials and the performance of structural elements to achieve functioning solutions

How was life different when Queen Victoria ruled?

Analyse the work of past and present professionals and others to develop and broaden their understanding

Where in the world are you?

Understand how more advanced mechanical systems used in their products enable changes in movement and force

How has history changed the way we celebrate?

Understand developments in design and technology, its impact on individuals, society and the environment, and the responsibilities of designers, engineers and technologists

What makes a person significant?

Apply computing and use electronics to embed intelligence in products that respond to inputs [for example, sensors], and control outputs [for example, actuators], using programmable components [for example, microcontrollers].

Develop specifications to inform the design of innovative, functional, appealing products that respond to needs in a variety of situations

