



# Gotham Primary DT Progression Planning

## Aims

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.

## EYFS

Through 'Expressive Art and Design' FS2 children will be involved in activities that develop their designing, making and evaluating skills. Throughout a range of learning opportunities including:

- Safely using and exploring a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.
- Representing their own ideas, thoughts and feelings through design and technology.

This will then be the foundations for DT learning through KS1 and KS2.

## Autumn

EYFS	Year 1/Year 2	Year 3	Year 4	Year 5	Year 6
<b>Structures</b> Experimenting with box modelling	<b>Making</b> Paper toys	<b>Mechanical systems</b> Pop up cards	<b>Woodwork</b> Bughouses	<b>Food</b> Pizza	<b>Food</b> Making bread

## Spring

EYFS	Year 1/Year 2	Year 3	Year 4	Year 5	Year 6
<b>Food</b> Fruit kebabs	<b>Structures</b> Windmill	<b>Structures</b> Photoframes	<b>Textiles</b> Puppets	<b>Structures</b> Bridges	<b>Structures</b> Transporting objects

## Summer

EYFS	Year 1/Year 2	Year 3	Year 4	Year 5	Year 6
<b>Textiles</b> Puppets	<b>Food</b> Healthy snacks	<b>Food</b> Salad	<b>Food</b> Healthy food	<b>Electrical systems</b> Lighthouses	<b>Mechanical systems</b> Clocks

## Design

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Design purposeful, functional, appealing products for themselves and other users based on design criteria. Through making monster designs and moving pictures.	Generate, develop, model and communicate their ideas through talking, drawing, templates, mock ups. Through making windmills.	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. Through making photo frames and pop up cards.	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. Through making bug houses and puppets.	Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer- aided design. Through making bridges.	Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross sectional and exploded diagrams, prototypes, pattern pieces and computer- aided design. Through making clocks.

## Vocabulary

Joining Purpose Appeal Moving	Model Generate Communicate Templates/ Mock ups	Research Innovate Function Purpose Product/ Frames	Develop Research Inform Bug houses Puppets	CAD Annotate Diagrams Prototypes Bridges (Different types)	Discussion Exploded diagrams Patterned pieces Moving clocks- automatic
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## Make

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics.	Select from and use a wider range of tools and equipment to perform practical tasks accurately.	Select from and use a wider range of tools and equipment to perform practical tasks 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.	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.	Select from and use a range of tools and equipment to perform practical tasks

## Vocabulary

Select Materials/components Construction Textiles	Use Perform Equipment Accuracy	Use Tools Perform Accuracy	Function Properties Aesthetics	Function Properties Aesthetics	Select Use Perform Practicality
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Evaluate					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Explore and evaluate a range of existing products	Evaluate their ideas and products against design criteria.	Investigate and analyse a range of existing products.	Investigate and analyse a range of existing products. Evaluate their ideas and products against their own design criteria.	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 <u>have helped to shape the world.</u>
Vocabulary					
Explore Evaluate Products	Ideas Criteria Design	Analyse Investigate Products	Evaluate Ideas Design Investigate	Improve Evaluate Opinions Criteria	Key events Impact Innovation

Technical Knowledge					
Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Build structures, exploring how they can be made stronger, stiffer and more stable and include sliders and levers.	Explore and use mechanisms in their products, including axels and wheels.	Apply their understanding of how to strengthen, stiffen and reinforce more complex structures, including linkages.	Understand and use mechanical systems in their products, including linkages.	Understand and use mechanical systems in their products, including, levers, pulleys and gears. Understand and use electrical systems in their products. Apply their understanding of computing to program, monitor and control their products.	Understand and use mechanical systems in their products, including, levers, pulleys and cams.
Vocabulary					
Build Structures Stiffen/ strengthen Sliders Levers	Explore Mechanisms Axles Wheels	Strengthen Reinforce Structures Linkages	Mechanisms Linkages Products Systems	Pulleys Gears Electrical systems Program Monitor	Levers Pulleys Cams Mechanisms

# Food Technology

Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Understand where food comes from.	Use the basic principles of a healthy and varied diet to prepare dishes.	Understand and apply the principles of a healthy and varied diet.	Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. Understand seasonality.	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.

## Vocabulary

Origins Food groups	Health/well being Diet Balanced	Health/well being Diet Balanced	Prepare Cook Savoury Techniques Seasons	Ingredients Cook Savoury Techniques Seasons	Growing/ cultivation Rearing Processing Organic Free range
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