



Design and Technology



Design and Technology

Mile Post 1



Key Skills

National Curriculum		IPC learning Goals
Design purposeful, functional, appealing products for themselves and other users based on design criteria	1.2	Be able to plan what they are going to make
Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology	1.3	Be able to describe their plans in pictures and words
Select from and use a range of tools and equipment to perform practical tasks	1.4	Be able to use simple tools and materials to make products
	1.5	Be able to choose appropriate tools and materials for their tasks
Select from and use a wide variety of materials and components, including construction materials, textiles and ingredients, according to their characteristics	1.4	Be able to use simple tools and materials to make products
	1.5	Be able to choose appropriate tools and materials for their tasks
Explore and evaluate a range of existing products	1.7	Be able to communicate on the usefulness of products in everyday use
Evaluate their ideas and products against design criteria	1.6	Be able to comment on their own plans and products and suggest areas of improvement
Build structures, exploring how they can be made stronger, stiffer and more stable		
Explore and use mechanisms, in their products		
Use the basic principles of a healthy and varied diet to prepare dishes		
Understand where food comes from		



Design and Technology

Mile Post 2

Key Skills

National Curriculum		IPC learning Goals
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	2.1	Know that the way in which products in everyday use are designed and made affects their usefulness
	2.2	Be able to design and make products to meet specific needs
	2.7	Be able to identify the ways in which products in everyday use meet specific needs
Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design	2.3	Be able to make useable plans
	2.4	Be able to make and use labeled sketches as designs
Select from and use a wider range of tools and equipment to perform practical tasks	2.5	Be able to use simple tools and equipment with some accuracy
Select from and use a wider variety of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities characteristics		
Investigate and analyse a range of existing products	2.7	Be able to identify the ways in which products in everyday use meet specific needs
	2.8	Be able to suggest improvements to products in everyday use
Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work	2.6	Be able to identify and implement improvements to their designs and products
Understand how key events and individuals in design have helped shape the world		
Apply their understanding of how to strengthen, stiffen and reinforce more complex structures		
Understand and use mechanical systems in their products (eg gears, pulleys, cams, levers and linkages).		
Understand and use electrical systems in their products		
Apply their understanding of computing to program, monitor and control their products		
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, and know where and how a variety of ingredients are grown, reared, caught and processed		

Design and Technology

Mile Post 3



Key Skills

National Curriculum		IPC learning Goals
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	3.4	Be able to respond to identified needs, wants and opportunities with informed designs and products
	3.5	Be able to gather and use information to suggest solutions to problems
	3.7	Be able to consider the needs of users when designing and making
Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design	3.6	Be able to devise and use step-by-step plans
Select from and use a wider range of tools and equipment to perform practical tasks accurately	3.8	Be able to select the most appropriate available tools and materials for a task
	3.9	Be able to work with a variety of tools and materials with some accuracy
	3.13	Understand the need for accurate design and working
Select from and use a wider variety of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities characteristics	3.8	Be able to select the most appropriate available tools and materials for a task
	3.9	Be able to work with a variety of tools and materials with some accuracy
	3.15	Understand that different techniques, tools and materials are needed for different tasks
Investigate and analyse a range of existing products	3.11	Be able to investigate the way in which simple products in everyday use are designed and made, and how they work
	3.12	Be able to evaluate the effectiveness of simple products in everyday use
Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work	3.10	Be able to test and evaluate their own work and improve on it
	3.16	Understand that the quality of a product depends on how well it is made and how well it meets its intended purpose
Understand how key events and individuals in design have helped shape the world	3.2	Know how the lives of people in the host country are affected by the extent of the technological advance
	3.3	Know how the lives of people in their home country are affected by the extent of the technological advance
Apply their understanding of how to strengthen, stiffen and reinforce more complex structures		
Understand and use mechanical systems in their products (eg gears, pulleys, cams, levers and linkages).		
Understand and use electrical systems in their products		
Apply their understanding of computing to		

program, monitor and control their products		
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, and know where and how a variety of ingredients are grown, reared, caught and processed		