

Design Technology Long Term Plan Overview UKS2

Cycle A 2023/2024	Autumn			Spring			Summer		
Theme Title	Lights, Camera, Action			Poles Apart			The Olympics		
Design Technology Study Title	Pinhole Camera			Significant Explorers			Fairgrounds (links to Science)		
Overview / Outcome	Product Pinhole Camera	Purpose Project images	User A photographer	Product A belt with loop holes	Purpose To carry equipment	User An explorer	Product A mini fairground ride prototype	Purpose To support a panoramic display	User Alton Towers
Area of Focus	Workshop – Structures			Textiles			Workshop – Structures Mechanisms Electrical		
Key Learning Objectives	<ul style="list-style-type: none"> • Use the correct terminology for tools materials and processes. • Use bradawl to mark hole positions. • Use hand drill to drill tight and loose fit holes. • Cut strip wood, dowel, square section wood accurately to 1mm. • Join materials using appropriate methods. • Build frameworks to support mechanisms. • Stiffen and reinforce complex structures. 			<ul style="list-style-type: none"> • Use the correct vocabulary appropriate to the project. • Create 3D products using patterns pieces and seam allowance. • Understand pattern layout. • Decorate textiles appropriately (often before joining components). • Pin and tack fabric pieces together. • Join fabrics using over sewing, back stitch, blanket stitch or machine stitching (closer supervision). • Combine fabrics to create more useful properties. • Make quality products. 			<ul style="list-style-type: none"> • Develop a technical vocabulary appropriate to the project. • Use mechanical systems such as cams, pulleys and gears. • Use electrical systems such as motors. • Program, monitor and control using ICT • Join materials using appropriate methods. • Build frameworks to support mechanisms. • Stiffen and reinforce complex structures- 		

Cycle B 2024/2025	Autumn			Spring			Summer		
Theme Title	Earth & Beyond			Material Ages (Ironbridge)			Invaders		
Design Technology Study Title	Moving Toy			Bridges			Global Foods		
Overview / Outcome	Product A toy using cams	Purpose Bring a book to life	User A KS1 or KS2 child	Product A hydrolic bridge	Purpose To allow a ship to pass	User Sailors	Product A plate of food inspired by different cuisines	Purpose Explore global foods and learn how foods are produced	User A KS2 child
Area of Focus	Workshop Mechanisms			Workshop – Structures			Food and Nutrition		
Key Learning Objectives	<ul style="list-style-type: none"> Develop a technical vocabulary appropriate to the project. Use mechanical systems such as cams, pulleys and gears. Use electrical systems such as motors. Program, monitor and control using ICT Join materials using appropriate methods. Build frameworks to support mechanisms. Stiffen and reinforce complex structures 			<ul style="list-style-type: none"> Use the correct terminology for tools materials and processes. Use bradawl to mark hole positions. Use hand drill to drill tight and loose fit holes. Cut strip wood, dowel, square section wood accurately to 1mm. Join materials using appropriate methods. Build frameworks to support mechanisms. Stiffen and reinforce complex structures. 			<ul style="list-style-type: none"> Prepare food products taking into account the properties of ingredients and sensory characteristics. Weigh and measure using scales. Select and prepare foods for a particular purpose. Work safely and hygienically. Show awareness of a healthy diet (using the eatwell plate). Use a range of cooking techniques. Know where and how ingredients are grown and processed. Consider influence of chefs e.g. Jamie Oliver and school meals, Hugh Fearnley-Whittingstall and sustainable fishing etc. 		

Cycle C 2021/2022	Autumn			Spring			Summer		
Theme Title	War and Remembrance			The Americas			Health through Time / The Romans		
Design Technology Study Title	LEGO Wedo Plane			American Food			A Roman Wall		
Overview / Outcome	Product A moving plane	Purpose To simulate a flight	User Someone learning about WW2	Product An American style treat	Purpose To promote American desserts	User Starbucks users	Product A Concrete wall	Purpose To protect a settlement	User The roman army
Area of Focus	Workshop – Mechanics			Food and Nutrition			Workshop – Structures		
Key Learning Objectives	<ul style="list-style-type: none"> Develop a technical vocabulary appropriate to the project. Use mechanical systems such as cams, pulleys and gears. Use electrical systems such as motors. Program, monitor and control using ICT Join materials using appropriate methods. Build frameworks to support mechanisms. Stiffen and reinforce complex structures. 			<ul style="list-style-type: none"> Prepare food products taking into account the properties of ingredients and sensory characteristics. Weigh and measure using scales. Select and prepare foods for a particular purpose. Work safely and hygienically. Show awareness of a healthy diet (using the eatwell plate). Use a range of cooking techniques. Know where and how ingredients are grown and processed. Consider influence of chefs e.g. Jamie Oliver and school meals, Hugh Fearnley-Whittingstall and sustainable fishing etc. 			<ul style="list-style-type: none"> Use the correct terminology for tools materials and processes. Use bradawl to mark hole positions. Use hand drill to drill tight and loose fit holes. Cut strip wood, dowel, square section wood accurately to 1mm. Join materials using appropriate methods. Build frameworks to support mechanisms. Stiffen and reinforce complex structures. 		

Cycle D 2022/2023	Autumn			Spring			Summer		
Theme Title	The Ancients			Mountains and Rivers			British History		
Design Technology Study Title	Jewellery			Marble Run (Science links)			Electric Car (Computing Link)		
Overview / Outcome	Product A form of Jewellery with a fastening	Purpose To be sold in a gift shop	User A tourist	Product Marble Run	Purpose To create the longest run	User A child	Product An electric vehicle	Purpose To move independently	User A Class 3 child
Area of Focus	Textiles			Workshop - Structures			Workshop – Mechanics		
Key Learning Objectives	<ul style="list-style-type: none"> • Use the correct vocabulary appropriate to the project. • Create 3D products using patterns pieces and seam allowance. • Understand pattern layout. • Decorate textiles appropriately (often before joining components). • Pin and tack fabric pieces together. • Join fabrics using over sewing, back stitch, blanket stitch or machine stitching (closer supervision). • Combine fabrics to create more useful properties. • Make quality products. 			<ul style="list-style-type: none"> • Use the correct terminology for tools materials and processes. • Use bradawl to mark hole positions. • Use hand drill to drill tight and loose fit holes. • Cut strip wood, dowel, square section wood accurately to 1mm. • Join materials using appropriate methods. • Build frameworks to support mechanisms. • Stiffen and reinforce complex structures. 			<ul style="list-style-type: none"> • Develop a technical vocabulary appropriate to the project. • Use mechanical systems such as cams, pulleys and gears. • Use electrical systems such as motors. • Program, monitor and control using ICT • Join materials using appropriate methods. • Build frameworks to support mechanisms. • Stiffen and reinforce complex structures. 		

