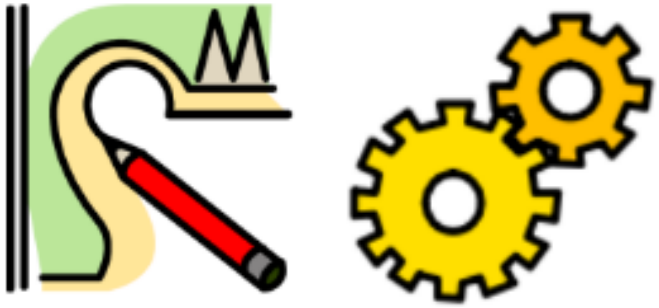

Design and Technology Overview

Chadsmead Primary Academy – Design and Technology Curriculum Overview

Structures	Mechanics	Electricals	Textiles	Food & Nutrition

		Autumn				Spring				Summer		
EYFS	Nursery											
	Reception											

EYFS Curriculum is under review – Activities may include the following:

Structures	Mechanics	Electricals	Textiles	Food & Nutrition
How do you build and construct items?	**How do you make an item move?**	N/A	**How do you make a textile item?**	**How do you make a healthy snack?**
Junk modelling, Construct roadways, Make obstacle courses, Craft activities Build towers	Create grabbers, Make see-saws, Use hinges, catches, Read pop-up books, Solve sliding puzzles, Make transport vehicles	Use and explore toys / items that light up, switch on/off or use batteries to develop awareness of electricity.	Texture collages Threading & lacing Story mats, Simple sewing, Patchwork projects	Ice-lollies Fruit skewers Seaside snack

Chadsmead Primary Academy – Design and Technology Curriculum Overview

Structures	Mechanics	Electricals	Textiles	Food & Nutrition

		Autumn	Spring	Summer
Y1/2	Cycle A (2024/25)	How can we make a moving picture?	How can we prepare a healthy snack?	How can we make an animal shelter?
		Mechanisms **Sliders and Levers** Moving Picture Cards Related Designer: Lillian Moller Gilbreth (Inventor of the pedal bin) Children learn to research, design, make and evaluate different mechanisms in order to create a picture card that moves using sliders or levers	**Food & Nutrition** **Preparing Fruit & Vegetables** Fruit / Vegetable Salads Related Designer: Jamie Oliver (Food Chef) Children learn to research, design, make and evaluate a healthy snack such as fruit salad, fruit kebabs, vegetable salad, pasta salad or a sandwich.	**Structures** **Shell Structures** Animal shelters Related Designer: Alex Darvill (Animal Welfare Shelter Architect) Children learn to research, design, make and evaluate a 3D animal shelter that could be used to house a small world toy, fictional character or specific object.
	Cycle B (2025/26)	How can we make a moving push/pull vehicle?	How can we make a free-standing structure?	How can we make a textile animal?
		Mechanisms **Wheels and Axels** Push and Pull Vehicles. Related Designer: Henry Ford (Founder of the Ford Car Company) Children learn to research, design, make and evaluate a wheel and axle mechanism, to create a vehicle such as a taxi, fire engine, police car, ambulance.	**Structures** **Free-Standing Structures** Bridge Building Related Designer: Horace Jones (Tower Bridge – London, Designer) Children learn to research, design, make and evaluate a free-standing paper bridge structure that can hold the weight of several toy cars.	**Textiles** **Templates & Joining** Textile animals Related Designer: Jim Henson (Puppeteer – Creator of the Muppets) Children learn to join together pieces of material in order to research, design, make and evaluate their sewing to create textile creepy crawlies or glove puppet animals that represent living things by joining materials.

Chadsmead Primary Academy – Design and Technology Curriculum Overview

Structures	Mechanics	Electricals	Textiles	Food & Nutrition

		Autumn	Spring	Summer
Y3/4	Cycle A (2024/25)	How can we make a moving toy?	How can we make a personal item using a template / pattern?	How can we make a healthy snack?
		Mechanics **Pneumatics** Moving Toys Related Designer: John Wanamaker (Pneumatic Tube Designer) Children learn to research, design, make and evaluate a moving toy such as a model that pops up using air flow through pneumatic systems,	**Textiles** **2D Shape / 3D Product Design** A Money Container Related Designer: Louis Vuitton (Fashion Designer) Children learn to research, design, make and evaluate a 2D design and construct a 3D version of a personal item to hold money such as a small bag, purse or wallet.	**Food Nutrition:** **Healthy Hot Snack** Mexican Street Food Related Designer: Ingrid Kosar (Hot Food Container Designer0 Children learn to research, design, make and evaluate a warm healthy meal associated with Mexican Street food using a table-top heat source.
	Cycle B (2025/26)	How can we make a moving puppet?	How can we make a frame structure?	How can we make an electrical item?
		Mechanics **Lever & Linkages** Mechanical Puppets Related Designer: Lottie Reiniger (Silhouette Animator) Children learn to research, design, make and evaluate a moving puppet that uses a range of levers and links to make its limbs move in different ways.	**Structures** **Frame Structures** Suspension Bridge Design Related Designer: Isambard Kingdon Brunel (Suspension Bridge Designer) Children learn to research, design, make and evaluate frame structures in order to create a drawbridge and/or a suspension bridge structure to span a specified wide space	**Electricals** **Circuits & Switches** Nightlights & Torches Related Designer: Thomas Eddison (Creator of the lightbulb) Children learn to research, design, make and evaluate an 3D electrical nightlight, torch or lighthouse.

Chadsmead Primary Academy – Design and Technology Curriculum Overview

Structures	Mechanics	Electricals	Textiles	Food & Nutrition

		Autumn	Spring	Summer
Y5/6	Cycle A (2024/25)	How do we make personal item that combines materials?	How do we make a controlled electrical system?	How do we make a fairground ride that turns, lifts or moves?
		Textiles **Combining fabrics** Arty Cushions Related Designer: Ed Mironuik (Felt artist) Children learn to research, design, make and evaluate a personal item combining a range of fabrics and materials to create an individualised cushion.	**Electricals** **Monitoring & Control** Nightlight – Control Systems Related Designer: Alessandro Volta (Creator of the electrical battery) Children learn to research, design, make and evaluate a controlled electrical item such as a light/torch that comes on when it is dark or a motorised vehicle. (Crumble Computing link)	**Mechanics** **Pulleys & Gears** Fairground Rides Related Designer: Walt Disney (Theme Park Developer) Children learn to research, design, make and evaluate a mechanical pulley system that turns, moves or lifts to create a fairground ride. (Computing link)
	Cycle B (2025/26)	How do we make a mechanical moving toy?	How do we make an engineering structure that can transport items?	How do we make a healthy meal?
		Mechanics **CAM Mechanisms** Autonoma Toys Related Designer: Jaquet-Droz (Automaton Designer) Children learn to research, design, make and evaluate an autonoma animal using CAMS such as a moving animal.	**Structure** **Engineering Structures** Imaginative Marbel Runs Related Designer: John Allen Children learn to research, design, make and evaluate an marble run combining their knowledge of construction to see who can send their marble for the longest ride.	**Food Nutrition:** **A Healthy Meal** Three Course Meal Design Related Designer: Paul Hollywood Children learn to research, design, make and evaluate a range of healthy items that celebrate culture and seasonality for a healthy meal such as bread, biscuits, scones, or muffins which include the use of an oven.