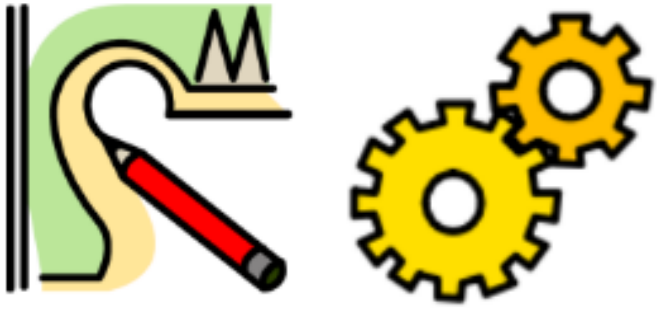

Design and Technology Overview

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?** Autumn 2	**How can we prepare a healthy snack?** Spring 2	**How can we make an animal shelter?** Summer 2
		Mechanisms **Sliders and Levers** **Moving Picture Celebration Card** **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** **Healthy Snack / Picnic Item** **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** **Free-Standing Structures** **3D Shape 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?** Autumn 2	**How can we make a free-standing structure?** Spring 2	**How can we make a textile animal?** Summer 2
		Mechanisms **Wheels and Axels** **A push/pull vehicle.** **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.**

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Structures	Mechanics	Electricals	Textiles	Food & Nutrition

		Autumn	Spring	Summer
Y3/4	Cycle A (2024/25)	**How can we make a moving toy?** Autumn 2	**How can we make a personal item?** Spring 2	**How can we make a healthy snack?** Summer 2
		Mechanics **Pneumatics** A Moving Toy Related Designer: Jan 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** **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 & Varied Diet** A Healthy Meal Related Designer: Gordon Ramsey (Chef) Children learn to research, design, make and evaluate a warm healthy meal such as pasta, soup, hot sandwich or similar item using a table-top heat source.
	Cycle B (2025/26)	**How can we make a moving story book?** Autumn 2	**How can we make a frame structure**? Spring 2	**How can we make an electrical item?** Summer 2
		Mechanics **Lever & Linkages** A Mechanical Book Related Designer: Torgny Fjeldskaar (Bike Designer) Children learn to research, design, make and evaluate a moving story book that uses levers and links to make its pictures move in different ways.	**Structures** **Suspension Bridge / Frame Structure*** 3D Bridge Design (CAD) Related Designer: Isambard Kingdon Brunel (Clifton 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 / Torch Related Designer: Thomas Eddison (Creator of the lightbulb) Children learn to research, design, make and evaluate an 3D electrical nightlight. (Computing link)

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Structures	Mechanics	Electricals	Textiles	Food & Nutrition

		Autumn	Spring	Summer
Y5/6	Cycle A (2024/25)	How do we make personal item that combines materials? Autumn 2	How do we make a controlled electrical system? Spring 2	How do we create an item that turns, lifts or moves? Summer 2
		Textiles **Combining fabrics** Personalised Arty Cushion 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: Alessando 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. (Computing link)	**Mechanics** **Pulleys & Gears** Lift, Turn or Move - Fairground Ride Related Designer: Archimedes (Pulley System 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 an autonoma toy? Autumn 2	How do we make an emergency shelter? Spring 2	How do we make a healthy meal? Summer 2
		Mechanics **CAMS** Autonoma Animals 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** **Shell Structures** Emergency Shelter using Tensile Strength. Related Designer: Henry Hopkins Sibley (Inventor of the tent) Children learn to research, design, make and evaluate an emergency shell shelter such as a tent, gazebo or bus shelter for an emergency that relies on force to maintain its shape.	**Food Nutrition:** **Celebrating Culture/Diversity** Healthy Meal Related Designer: Paul Hollywood Baker / Chef 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. .