

Progression through the Design and technology curriculum

Updated 01.01.22

	RECEPTION	YEAR 1	YEAR 2	YEAR 3	YEAR 4	YEAR 5	YEAR 6	YEAR 7 (KS3)
Design Structures	<p>We are learning to talk about the materials we need to create a 3D structure.</p> <p>We are learning to discuss our design ideas for a 3D structure.</p> <p>We are learning to plan what to use to join attach materials together.</p>	<p>We are learning to design a model house.</p>	<p>We are learning to explore kite designs.</p>	<p>We are learning to design a stable structure for a purpose.</p>	<p>We are learning to design a functional kite.</p>	<p>We are learning to design a recreated musical instrument.</p>	<p>We are learning to design a scale model bridge structure.</p> <p>We are learning to design a product based on a brief.</p>	<p>We are learning to create designs based on user needs.</p> <p>We are learning to identify and solve our own design problems.</p> <p>We are learning to develop specifications to inform our designs.</p> <p>We are learning to use a range of techniques to develop and communicate design ideas.</p>
Mechanical Systems		<p>We are learning to design a fire engine model with moving wheel mechanisms.</p> <p>We are learning to design a model windmill.</p>	<p>We are learning to design picture with a sliding mechanism.</p> <p>We are learning to design a model vehicle.</p>	<p>We are learning to design a pneumatic system.</p>	<p>We are learning to design a children's book with mechanical features.</p>	<p>We are learning to design a movable toy featuring an automaton mechanism.</p>		

Electrical Systems				We are learning to design an illuminated sign featuring a circuit.	We are learning to design a torch featuring an electric circuit.	We are learning to design an alarm featuring a buzzer.	We are learning to design a model fairground ride featuring a circuit with a motor.	
Make Structures	We are learning to create 3D structures. We are learning to explore different ways to cut, shape and join materials.	We are learning to make a model house structure.	We are learning to construct a kite based on a design.	We are learning to make a mini greenhouse structure.	We are learning to make a kite.	We are learning to make an African style musical instrument.	We are learning to make a scale model bridge. We are learning to make functional bird house structures.	We are learning to select and use specialist tools, techniques and equipment.
Mechanical Systems			We are learning to make a picture with a moving mechanism. We are learning to make a model vehicle with working wheels, axels and chassis.	We are learning to make a monster with a pneumatic system.	We are learning to make a story book with mechanical, movable pieces.	We are learning to make a movable toy featuring an automaton mechanism.		

Electrical Systems				We are learning to construct an illuminated sign featuring a working circuit.	We are learning to make a working torch model.	We are learning to make an alarm featuring a working buzzer circuit.	We are learning to make a fairground ride model featuring a circuit with a motor.	
<u>Evaluate</u>		We are learning to ask and answer questions about our product.	We are learning to answer questions about our work. We are learning to wonder about how we can improve our products.	We are learning to evaluate our product and record our evaluations.	We are learning to evaluate the function of our product. We are learning to evaluate the decorative aspects of our product.	We are learning to evaluate the function of our product. We are learning to evaluate our product against design criteria.	We are learning to evaluate our product against design criteria. We are learning to evaluate whether our product meets a design brief. We are learning to evaluate other people's products.	We are learning to analyse work of professionals. We are learning to investigate new and emerging technologies. We are learning to test, evaluate and refine our ideas and products against a specification. We are learning to understand developments in design and technology.
<u>Technical Knowledge</u>	We are learning to attach	We are learning to join and combine shapes.	We are learning to make sliders and levers.	We are learning to understand and make	We are learning to create a circuit	We are learning to create	We are learning to create a circuit	We are learning to use materials purposefully to

	materials securely.	We are learning about how wheels, axels and chassis work.	We are learning to use wheels, axels and chassis in our models	pneumatic systems. We are learning to create a circuit featuring a bulb.	with a bulb and switch. We are learning to explore and create different moveable mechanisms.	automaton mechanisms. We are learning to create a circuit featuring a buzzer. We are learning to select materials based on their functional properties.	featuring a motor. We are learning to make scale models. We are learning to cut a range of materials safely.	achieve functioning solutions. We are learning to understand advanced mechanical systems. We are learning to understand how advanced electrical and electronic systems can be powered.
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