

Pentecost 2
Design & Technology - Structures Y1:

Scripture Link:

National Curriculum Objective:

Design, make and evaluate a _____ (product) for _____ (user) for _____ (purpose). Choose a product linked to a topic- toys?

	Lesson 1	Lesson 2	Lesson 3
Learning intention for each lesson	I know what a free standing structure is and can evaluate existing structures.	I can explore and evaluate how to make simple structures. (Use and practice skills.)	I can design a simple structure. (Create a simple design, success criteria.)
Recall and Retrieval	<ul style="list-style-type: none"> • Different structures are used for different purposes. • A structure is something that has been made and put together. 	<ul style="list-style-type: none"> • Use scissors to cut a variety of materials. • Join materials in different ways. • Choose a range of materials to make a model. • A structure is something that has been made and put together. • I know that freestanding structures are structures that can stand up without being attached to something else. 	<ul style="list-style-type: none"> • I know that a structure is something built for a reason. • Different structures are used for different purposes. • I know that some materials are stronger and more rigid than others e.g. card and paper. • I know that structures can be made stronger and more rigid by making sure that parts and materials are properly joined together.
Sequence of substantive knowledge throughout the lesson	Evaluate: <ul style="list-style-type: none"> • I know that a structure is something built for a reason. • I know that structures can be large e.g. buildings and bridges) or small (e.g. chairs or tables) • I know that freestanding structures are structures that can stand up without being attached to something else. • I know that freestanding structures need to support their own weight. 	Evaluate: <ul style="list-style-type: none"> • I know that some materials are stronger and more rigid than others e.g. card and paper • I know that structures can be made stronger and more rigid by making sure that parts and materials are properly joined together. • I know that the buttress adds width to the base, making the structure more stable. 	Design: <ul style="list-style-type: none"> • I know what makes a strong, stable, rigid structure.
Key Skills/disciplinary knowledge	Evaluate: I can look at and evaluate existing structures	Evaluate: <ul style="list-style-type: none"> • I can use scissors to cut different materials. • I can join materials in different ways. • I can choose a range of materials to make a model. 	Design: <ul style="list-style-type: none"> • I know the importance of a clear design criteria. • I can include individual preferences and requirements in my design.

		<ul style="list-style-type: none"> I can fold and layer (adding an extra layer of materials can also be used to strengthen and stiffen structures.) 	<ul style="list-style-type: none"> I can develop my ideas through talking, drawing and making mock-ups of my idea. I know that design criteria are a list of points to ensure the product meets the client's needs and wants. I can create a structure that stands up on its own. I can add some weight to my structure.
Key Vocabulary		Base, rotate, rotor, rotor blade, sail, stable, structure	
Main teaching activity <i>If the school has another short term planning format, this does not need to be included.</i>			
Scaffolding			Pupils needing extra support: <ul style="list-style-type: none"> could have a cup with a pre-marked centre
Challenge			Pupils working at greater depth: <ul style="list-style-type: none"> could be challenged to arrange the modelling dough in a different orientation and asked if they think this improves stability.
Diversity Links			
Catholic Social Teaching Principles			
British Values			
Wider links			

Pentecost 2
Design & Technology -Structures Y1:

	Lesson 4	Lesson 5	Lesson 6
Learning intention for each lesson	I can use tools and equipment accurately to start my structure.	I can add finishing touches to my structure.	I can evaluate my structure.
Recall and Retrieval	<ul style="list-style-type: none"> • Different structures are used for different purposes. • I know that structures can be made stronger and more rigid by making sure that parts and materials are properly joined together. • I know what makes a strong, stable, rigid structure. 	<ul style="list-style-type: none"> • I know how to turn 2D nets into 3D structures. • I know that the buttress adds width to the base, making the structure more stable. • I know that structures can be made stronger and more rigid by making sure that parts and materials are properly joined together. 	<ul style="list-style-type: none"> • I know that a structure is something built for a reason. • I know that structures can be large e.g. buildings and bridges) or small (e.g. chairs or tables) • Different structures are used for different purposes.
Sequence of substantive knowledge throughout the lesson	Make: <ul style="list-style-type: none"> • I know how to turn 2D nets into 3D structures. 		Evaluate: <ul style="list-style-type: none"> • I know how to test my product. • I know how I could make my design better.
Key Skills/disciplinary knowledge	Make: <ul style="list-style-type: none"> • I can choose appropriate tools and resource • I can mark and measure materials to use in a model or structure with help • I can follow my design criteria. • I can hold scissors correctly. • I can begin to estimate equal distances. • I can cut carefully. • I can fold to make the shape of the structure. 	Make: <ul style="list-style-type: none"> • I can use simple finishing techniques suitable for the structure I am creating. • I can widen a hole. • I can join parts together. • I can attach a supporting structure. • I can test a structure. 	Evaluate: <ul style="list-style-type: none"> • I can evaluate my product by discussing how well it works in relation to the purpose, the user and whether it meets the original design criteria.
Key Vocabulary	Equal, fold, length, rotor blades, sails, same, scissors, width	Attach, join, rotate, structure, test, turn	Evaluate, improve, test
Main teaching activity <i>If the school has another short term planning</i>			

<i>format, this does not need to be included.</i>			
Scaffolding	Pupils needing extra support: <ul style="list-style-type: none"> could use a cup with pre-marked lines to cut; could be given a specific number of cuts to make. 	Pupils needing extra support: <ul style="list-style-type: none"> could use a cup with pre-marked lines to cut; could be given a specific number of cuts to make. 	
Challenge	Pupils working at greater depth: <ul style="list-style-type: none"> could be asked to mark where they will make their cuts before cutting. 	Pupils working at greater depth: <ul style="list-style-type: none"> could be asked to mark where they will make their cuts before cutting. 	
Diversity Links			
Catholic Social Teaching Principles			
British Values			
Wider curriculum links			