



DT Medium Term Plan

Year	A	Term:	Summer 2	Unit:	How does your garden Grow?
Big Question:	How can we make a durable structure?				
Prior Substantive Knowledge	Structures -Explore how to make structures stronger. - Investigate different techniques for stiffening a variety of materials. - Test different methods of enabling structures to remain stable. Investigate - Explore existing products and investigate how they have been made. - Decide how existing products do/do not achieve their purpose. - Talk about their design as they develop and identify good and bad points. Make - Select and name the tools needed to work the materials. - Explain what they are making. - Explain which materials they are using and why.			Cross-curricular	Geography, History
				Key Vocab	Tower -tall, narrow building or part of a building that rises high above the ground Architect -a person who designs buildings and helps plan how they are built. Structure is something that has been built, like a house, bridge, or tower. Height is how tall something is, measured from the bottom to the top. Sturdy means strong and solid; it doesn't break or fall easily. Architecture is the art and science of designing and building structures like houses, schools, and towers. Aesthetic means how something looks and how beautiful or pleasing it is. Durable means something is strong and lasts a long time without getting damaged.
			Essential vocab		



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Substantive Knowledge:		Disciplinary Knowledge (Think like)	
Declarative Knowledge (Know what)	Procedural Knowledge (Know how)		
-Develop vocabulary related to the project. - Create shell or frame structures. - Strengthen frames with diagonal struts.	Design - Develop more than one design or adaptation of an initial design. - Plan a sequence of actions to make a product. Make - Prepare pattern pieces as templates for their design. - Cut slots. - Cut internal shapes. - Select from a range of tools for cutting shaping joining and finishing. Evaluate - Decide which design idea to develop. - Consider and explain how the finished product could be improved.	- Make structures more stable by giving them a wide base. - Measure and mark square section, strip and dowel accurately to 1cm.	
Teacher Knowledge		FRUITS	Faith- often inspires people to build structures that are important, meaningful, and lasting. Whether it's a small model or a great building, the idea of faith connects to structure in several ways Relationship- Building a structure—whether it's a model tower, a bridge, or a real building—often involves working with others. That's where relationships come in Uniqueness- Every structure is different and special—just like people! The idea of uniqueness means that no two buildings or creations are exactly the same.



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				Intellect- using your brain to think carefully, solve problems, and create new ideas. Building a structure needs a lot of intellect! Treat others with respect- Building a structure—whether it’s a small model or a big building—is often a team effort. Treating others with respect helps the team work better together and build something strong. Salvation- In many religions, salvation means being saved or protected—often spiritually—and structures like buildings or places of worship can represent or support this idea.	
Key concept	Learning objective	Key components	Main input	Activity	Adaptive strategies
	How are buildings different around the world?	-I can identify which countries and continents their chosen buildings are from. -I can identify and discuss similarities and differences between buildings (e.g. size, materials, design). -I can understand the importance of safety and design in construction.	introduce the question to the class, children to have post it notes on tables ready. Children to discuss as a class and then write their idea of comparing buildings they already know. E.g. Empire state building and Eiffel tower. Discuss with the children some of the buildings they wrote – what country are they from? Continent? Go through the PP on some of the different and unique buildings around the world. Discuss the similarities and differences. Likes and dislikes. Also look at PP on Construction engineers and what their job was. Explain to the children what an architect does. How important it is for safety etc.	Children to have post it notes and write buildings that they know. Place on board at the front of the class. World map on the floor – children to place pictures where they are from in the world.	Adult support to aid discussion. Vocabulary Support Pre-teach key vocabulary (e.g. "architect", "continent", "construction", "structure") using word banks or visual glossaries. Provide sentence starters like: “I think this building is in...” “This building is different because...”



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			World map to be placed in the middle of the class and plot where the buildings are in the world.		"I like this building because..."
chronology	How have buildings changed over time?	-I can identify key features of buildings from different time periods. -Understand how materials and construction methods evolved. -Compare two buildings from different eras using observations and vocabulary	Show an image montage of buildings from different eras. Ask the children- What do you notice? How are they different Introduce the key question: How have buildings changed over time? Briefly place each era on a class timeline. Go through each period with 1–2 key images and prompt discussion: • Stone Age – Natural shelters, mud huts, caves • Ancient Egypt – Pyramids, stone blocks, monuments • Vikings – Longhouses, wood and turf roofs • Tudors/Stuarts – Timber frames, thatched roofs • Georgian/Victorian – Brickwork, symmetry, industrial influence • Modern day – Glass, steel, eco-buildings Emphasise materials used and the needs of the time. As a class – look at two of the buildings that interest us – look at the similarities and differences.	Children to pick two of the houses from different periods – draw each building and compare its similarities and differences.	Pre-teach key vocabulary: e.g., structure, material, shelter, compare, past, present. Create a visual word bank with images (e.g., picture of a "thatch roof" or "glass building"). Use sentence starters and scaffolds such as: • "In the Stone Age, people used _____." • "Modern buildings are different because _____."



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			stone age and Modern-day houses – see table for lesson 2 resource.		
	Why are buildings constructed differently?		straws lesson triangles make the structures more secure.		
	To build the base for our structure.		build the structure		
	To finish building a structure.		build the structure		
	How can we make a durable structure?		evaluate		