



Topic	Lesson Name	Lesson No.	Learning objective	Assessing Pupils' Understanding and Progress (After each unit add initials to the expected standard not met and greater depth columns)			
				Children who have not met expected standard in the unit	Secure understanding	Greater depth	Children who are greater depth in the unit
Structures: Constructing a Windmill	Designing the Structure	1	Describing the purpose of a given structure and including individual preferences and requirements within a design		Identifying and articulating some features and a design that would appeal to the character within a given story	Identifying a greater range of features that would appeal to the character within a given story, which may go beyond basic aesthetic considerations, such as colour, and focus on functional aspects, such as doors and windows. Extending the structure to include a roof	
	Assembling the Structure	2	Making a stable structure - following instructions to cut and assemble the supporting structure of the windmill. Knowing that the shape of materials can be changed to improve the strength and stiffness of structures and that cylinders are a strong type of structure		Making stable structures from card, tape and glue which will eventually support the turbine	Cutting and sticking with accuracy to create a strong and stable structure. Successfully securing a separate structure for the roof of the windmill	
	Assembling the Windmill	3	Cutting and assembling the turbine correctly, understanding that windmill turbines use wind to turn and make the machines inside work, knowing that axles are used in structures and mechanisms to make parts turn in a circle and testing that the turbine turns in the structure and altering the parts if it doesn't		Articulating historical and contemporary uses of windmills and cutting and assembling components with accuracy	Explaining the function of windmills in different times and situations. Creating more sophisticated products through greater attention to accuracy and precision during the making process	
	Testing and Evaluating	4	Evaluating the windmill according to the design criteria, testing its strength and stability and reinforcing it if necessary. Testing that the turbine turns in the structure and altering the parts if it doesn't and testing that it turns freely in when blown on		Making functioning turbines and axles which are assembled into the main supporting structure. Identifying what is good about the structure and what could be done better	Creating more sophisticated products through greater attention to accuracy and precision during the making process. Evaluating the outcome by referencing the 'Success and Design Criteria'	