

KNOWLEDGE ORGANISER – St Gregory’s RC Primary School

Topic: Design Technology

Year Group: 4 Spring

Strand: Structures – Shell Structures - Mother’s Day Biscuit Gift Box

What I should already know	Sticky knowledge	Key skills
<ul style="list-style-type: none"> • I know that structures are things that are built for a purpose. • I know how to make a simple structure more stable. • I know how to design a product based on a design criteria and a purpose. • I can evaluate how my product meets criteria and discuss what I would change. <p align="center">Design Brief</p> <p>Design and make a gift box to hold Mother’s Day biscuits. The box must protect the biscuits and stop them from getting broken as well as be appealing enough to make people want to buy it. Think carefully about colours and materials you are going to use.</p>	<ul style="list-style-type: none"> • I know that shell structures have a solid outer surface and a hollow inner area and I can give examples of shell structures. • I know shell structures need to be stiffened • I know that shell structures have different purposes. • I know some examples of shell structures. • I know how to make a shell structure to protect a product. • I know how to make a prototype 	<p>Designing:</p> <ul style="list-style-type: none"> • I can identify a purpose for my product and prove my design meets this criterion. • I can plan a sequence of actions to make a product • Design a product and make sure that it looks attractive <p>Making</p> <ul style="list-style-type: none"> • I can measure, mark, cut, score and assemble with accuracy. • I can select from materials according to their functional properties. <p>Evaluating</p> <ul style="list-style-type: none"> • I can investigate similar products and use this as a starting point for my designs. • I can research key events and individuals in design and technology. • I can discuss how well my product meets the user’s design criteria. <p>Technical knowledge:</p> <ul style="list-style-type: none"> • I can create a prototype for my product • I can strengthen structures by folding, corrugating or ribbing materials

Vocabulary		Diagrams/Pictures
Durable	An object that is strong and hard-wearing	
Face	A surface of a geometric shape	
Font	A printing term for the style of lettering used.	
Layering	Stiffening the outer materials by putting several of the same materials together on different levels.	
Net	The flat shape of an object such as a box.	
Prism	A solid shape with ends that are similar, equal or parallel.	
Packaging	Materials used to wrap and protect something.	
Scoring	Cutting a line into sheet materials to make it easier to fold.	
Shell structure	A hollow structure with a thin outer covering.	
Vertex	The corners of a solid shape, where the edges meet.	