



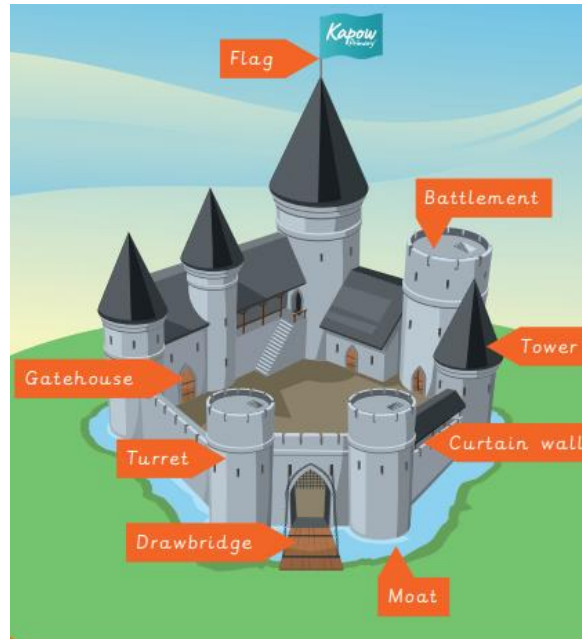
Year:	3 and 4	Unit:	Structures
Overview: In this unit children will learn about the features of a castle and design and make one of their own. They will also be using configurations of handmade nets and recycled materials to make towers and turrets and constructing a base to secure them.			
Design Brief: The children will construct a castle.			

Key Vocabulary		Key skills		
Design criteria		<i>Design</i>	<i>Make</i>	<i>Evaluate</i>
Evaluation	A set of rules to help designers focus their ideas and test the success of them.	Y3 - Designing a castle with key features to appeal to a specific person/ purpose - Drawing and labelling a castle design using 2D shapes, labelling: - the 3D shapes that will create the features - materials need and colours Y4 - Designing a castle structure that is aesthetically pleasing and selecting materials to create a desired effect - Building frame structures designed to support weight	Y3 - Constructing a range of 3D geometric shapes using nets - Creating special features for individual designs - Making facades from a range of recycled materials Y4 - Creating a range of different shaped frame structures - Making a variety of free-standing frame structures of different shapes and sizes - Selecting appropriate materials to build a strong structure and for the cladding - Reinforcing corners to strengthen a structure - Creating a design in accordance with a plan - Learning to create different textural effects with materials	Y3 - Evaluating own work and the work of others based on the aesthetic of the finished product and in comparison, to the original design - Suggesting points for modification of the individual designs Y4 - Evaluating structures made by the class - Describing what characteristics of a design and construction made it the most effective - Considering effective and ineffective designs
Façade	When you look at the good and bad points about something, then think about how you could improve it.			
Feature	The front of a structure.			
Net	A specific part of something.			
Recyclable	A 2D flat shape, that can become a 3D shape once put together.			
Scoring	Material or an object that, when no longer wanted or needed, can be made into something else.			
Stable	Scratching a line with a sharp object into card to make the card easier to bend.			
Cladding	Object does not easily fall over.			
Tab	A covering or coating on a structure or material			
	The parts of the net template that are bent and glued down to hold the shape together.			

Progression of knowledge and skills in structures.

What should I already know? (KS1)

- How to generate design ideas; developing modelling and explaining using talk, mock-ups and drawings.
- How to plan, make and select tools and new and recycled materials; using finishing techniques.
- To explore existing freestanding structures; and evaluate my own products against original criteria.
- Know about strengthening structures; knowledge of vocabulary.



What will I learn in this unit? (LKS2)

- How to generate and develop realistic ideas and design criteria collaboratively and through analysis of existing products.
- Order the stages of making; selecting tools and using with some accuracy.
- Investigate and evaluate shell structures, and construct strong, stiff shell structures.
- Test and evaluate own products against design criteria and intended user and purpose.