



KSI— DESIGN AND TECHNOLOGY



QUESTION: HOW TO CONSTRUCT A CASTLE?



Design
inspiration



Structures



Technical
knowledge



Practical
knowledge



Design
process

Weeks of teaching	Line of enquiry	Threshold concept	Substantive knowledge	Disciplinary knowledge	Curriculum endpoint
1	Features of a castle	*take inspiration from design throughout history	*shapes can be put together to form a strong structure *stable means an object or structure not likely to fall over *wide and flat based objects are more stable	*Explore objects and designs to identify likes and dislikes of the designs. *Suggest improvements to existing designs. *Explore how products have been created	*design purposeful, functional, appealing products for themselves and other users based on design criteria *generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology
2	Designing a castle	*design, make, evaluate and improve	*a net is a flat 3D shapes that can be folded and stuck together to make a 3D shape *wide and flat based objects are more stable	*Design products that have a clear purpose and an intended user. *Make products, refining the design as work progresses	
3	Nets and structures	*Master practical skills	*a net is a flat 3D shapes that can be folded and stuck together to make a 3D shape *tabs are the parts that secure the nets together	*Cut materials safely using tools provided. *Measure and mark out to the nearest centimetre. *Demonstrate a range of cutting and shaping	

				techniques (such as tearing, cutting, folding and curling). *Demonstrate a range of joining techniques (such as gluing, hinges or combining materials to strengthen).	*select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing *build structures, exploring how they can be made stronger, stiffer and more stable
4	Building a castle	*Master practical skills	*strong and stable structures need a base *facade is the front of the castle	*Cut materials safely using tools provided. *Measure and mark out to the nearest centimetre. *Demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling). *Demonstrate a range of joining techniques (such as gluing, hinges or combining materials to strengthen).	
Assessment opportunity: Build a castle					