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## Year 2 - Medium Term Plan Technology

How can I build a castle that withstands invasion?



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### Aspect of Study

Design  
Technical Knowledge  
Evaluation  
Making a structure

### Transferable Knowledge:

History – events beyond living memory that are significant nationally or globally.

### National Curriculum Overview of Programme of Study

Design and technology is an inspiring, rigorous and practical subject. Using creativity and imagination, pupils design and make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values. They acquire a broad range of subject knowledge and draw on disciplines such as mathematics, science, engineering, computing and art. Pupils learn how to take risks, becoming resourceful, innovative, enterprising and capable citizens. Through the evaluation of past and present design and technology, they develop a critical understanding of its impact on daily life and the wider world. High-quality design and technology education makes an essential contribution to the creativity, culture, wealth and well-being of the nation.

### During this area of study students should be taught to:

#### **Design**

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

#### **Make**

Select from and use a range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing]

Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics

#### **Evaluate**

Explore and evaluate a range of existing products

Evaluate their ideas and products against design criteria

#### **Technical knowledge**

build structures, exploring how they can be made stronger, stiffer and more stable

Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.



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## Parental Support page



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### Places to visit/things to do at home:

- Find out about famous engineers. Search the web and use non-fiction books to find out about their life and work.
- Design and create a model of a famous structure from around the world, using junk materials found at home.
- Visit:  
Newcastle castle, Alnwick castle, Bamburgh castle etc

### Knowledge, skills and understanding covered in this unit:

- Selects from a range of tools, materials according to their characteristics.
- Explore what products are, what they are made from, made for and how they might be used.
- Measures, marks out, cuts and shapes a range of materials and components.
- Talk and write about how to make their products better.

### Books and websites to support with learning:

- In the Castle Book by Anna Milbourne
- A Year in a Castle Book by Rachel Coombs
- Peep Inside the Castle Book by Anna Milbourne
- <http://www.kidsonthenet.com/castle/view.html>
- <https://www.bbc.co.uk/programmes/p064kzkk>

### Influential Figures

Harry Hotspur (Alnwick)  
John Agaunt (Dunstanburgh)  
King Oswin (Northumbria)

Key vocabulary	Concepts	Language skills
<p>           Bailey            Battlements            Drawbridge            Fortress            Keep            Moat            Portcullis            Rampart            Tower            Tunnel            Turret            Viaduct            Design            Durable            Function            Join            Investigate            Model            Structure            Strength            Tools            Materials         </p>	<p>           Joining materials            Protection         </p>	<p>           Verbally communicate their thought process when designing a product with some reference to the key vocabulary.         </p>



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## Sequence of Teaching and Learning

	National Curriculum LO/EQ?
<b>1</b>	<p>NC OBJ:</p> <ul style="list-style-type: none"> <li>Generate, develop, model and communicate their ideas through talking, drawing, templates, mock-ups and, where appropriate, information and communication technology</li> </ul> <p><b>E.Q: How can I build a castle that withstands invasion?</b></p>
<b>2</b>	<p>NC OBJ:</p> <ul style="list-style-type: none"> <li>Explore and evaluate a range of existing products</li> </ul> <p><b>L.O: Protective features of a castle - how do they work?</b></p>
<b>3</b>	<p>NC OBJ:</p> <ul style="list-style-type: none"> <li>Evaluate their ideas and products against design criteria</li> <li>Design purposeful, functional, appealing products for themselves and other users based on design criteria</li> </ul> <p><b>L.O: Can you design 3 methods to protect your castle giving examples of how they will work?</b></p>
<b>4</b>	<p>NC OBJ:</p> <ul style="list-style-type: none"> <li>Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</li> </ul> <p><b>E.Q: What materials are the most suitable to build a model castle?</b></p>



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National Curriculum LO/EQ?	
<b>5</b>	<p>NC OBJ:</p> <ul style="list-style-type: none"> <li>Explore and use mechanisms [for example, levers, sliders, wheels and axles], in their products.</li> </ul> <p><b>L.O: Design a castle which has at least 3 protective features.</b></p>
<b>6</b>	<p>NC OBJ:</p> <ul style="list-style-type: none"> <li>Select from and use a wide range of materials and components, including construction materials, textiles and ingredients, according to their characteristics</li> </ul> <p><b>L.O: Build a castle that withstands invasion and evaluate its effectiveness.</b></p>