# **UKS2** – Lesson Plan 2 – **History**

## ***How did medieval engineers design siege engines, and can we recreate them using modern materials?***

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| Aim:<br>Children will explore the history of siege engines, learn how they were used, and apply their knowledge to design and build a working model that reflects historical inspiration but uses modern D.T. skills. | Key Words:<br>• Siege engine, catapult, trebuchet, counterweight, pivot, lever, tension, projectile, accuracy, stability, medieval, warfare. | Preparation:<br>• Images and diagrams of historical siege engines (catapults, trebuchets, battering rams)<br>• Short video showing how a trebuchet or catapult works<br>• Cardboard, lollipop sticks, rubber bands, masking tape, string, small plastic cups, glue guns (with supervision)<br>• Small soft projectiles (marshmallows, paper balls)<br>• Rulers and protractors for measuring launch angles<br>• Large paper for design sketches |

**Prior Learning:** Children may have studied simple machines in science (levers, pulleys) and medieval history topics such as castles and warfare. They may also have experience with basic model construction in D.T.

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| WC / PT | <u>Warm-up:</u><br>Show an image of a medieval castle under siege. Ask:<br>• How would people try to break through the walls?<br>• What tools or machines might they use?<br>Briefly introduce siege engines and their importance in medieval battles.<br>Discuss differences between catapults and trebuchets. | 0-5 mins |
| WC | <u>Main Teach:</u><br>Demonstrate a small working model of a catapult or trebuchet (or show a video).<br>Break down the key engineering principles:<br>• **Lever mechanics** – how the arm moves<br>• **Energy storage** – tension from rubber bands or counterweights<br>• **Accuracy and range** – adjusting angles and power<br>Explain that children will design and build their own small-scale siege engine, inspired by historical designs but adapted using modern classroom materials. | 5-10 mins |

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| I / S | <u>Activity:</u><br>Children work in small groups to:<br>1. **Research & Plan** – choose a siege engine type and sketch their design.<br>2. **Build** – assemble the model using provided materials, focusing on stability and function.<br>3. **Test & Adjust** – launch projectiles and measure distance and accuracy, making modifications to improve results.<br>Safety rules should be reinforced throughout. | 10-30 mins |
| I | <u>Extension Challenge:</u><br>1. Modify your design to improve accuracy over long distances.<br>2. Create a historically themed decoration for your siege engine, adding coats of arms or wood-effect paint for authenticity. | 30-35 mins |
| WC | <u>Plenary:</u><br>Hold a "Siege Engine Showdown" where each group presents their design, explains its historical inspiration, and demonstrates a test shot.<br>Discuss:<br>• What design features worked best?<br>• How did medieval engineers overcome challenges?<br>Reflect on how D.T. skills can bring history to life. | 35-40 mins |

WC – Whole Class PT – Partner Talk I – Independent S - Support

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| Challenge A | **Maths Link:** Record launch distances, calculate averages, and create a bar graph comparing results. |
| Challenge B | **Geography Link:** Research the location of famous medieval sieges and map them with details about the terrain and climate. |