

Knowledge Organiser How did the Romans defeat their enemies?

<u>Year Group: Four</u>	<u>Subject: Design and Technology</u> <u>Mechanical systems: Levers and Linkages</u>	<u>Topic:</u> <u>Design, make and evaluate a catapult for a Roman soldier to lay siege to an enemy city.</u>
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What will I learn?	Key vocabulary:	
<ul style="list-style-type: none"> • How to design, make and evaluate a model of a catapult. • What a lever and linkage is. • How to distinguish between fixed and loose pivots • How parts of the catapult will move. • Which lever and linkage mechanism will be best to use. • Which tools, equipment and techniques will be needed and how to use them safely. • How to evaluate my design and catapult against existing products and my final product. • How to refine my catapult design and final product. 	Design, make, evaluate	mechanism
	lever	pivot
	linkage	slot
	Guide/bridge	Loose pivot
	Fixed pivot	triangulation
	Frame structure	prototype
How will I learn?		
<ul style="list-style-type: none"> • I will work in a group to talk about and research existing catapults. • I will draw annotated sketches as part of my design process. • I will be able to make mock-ups of a catapult using pre-made construction materials such as lego, k'nex, straws and magnetix. • I will practise and explore using a range of media and materials. • I will negotiate and work together with others to build, test and modify my catapult through problem solving. 		