



CATAPULTS

The catapult was an ancient siege machine that could hurl heavy objects or shoot arrows with great force and for considerable distances. Some catapults could throw stones weighing as much as 350 pounds for distances greater than 300 feet.

The Greek Dionysius the Elder of Syracuse, who was looking to develop a new type of weapon, invented the catapult about 400 BCE. Thereafter, it became a key weapon in warfare and remained so up through mediaeval times. Two major catapults evolved from Dionysius's invention: the double-armed machine, or ballista, used for shooting arrows, and the single-armed catapult designed for hurling large objects. Although the Romans added wheels to both types of catapult for maneuverability, very little in the design of the machine changed.

Science Connection – Students develop abilities necessary to do scientific inquiry and develop abilities for technological design.

Technology Connection – Students develop abilities to apply the design process and assess the impact of products and systems.

Engineering connection - The catapult was used in ancient and medieval warfare to hurl stones and other projectiles at the enemy. Today, catapults are used for other purposes – like launching airplanes from aircraft carriers that have short runways. An aircraft catapult slings a plane forward, helping to create enough lift for a safe takeoff.

Math Connection - Students understand numbers, ways of representing numbers, relationships among numbers, and number systems. Students compute fluently, make reasonable estimates, and solve problems that arise in mathematics and in other contexts.