Knowledge Organiser

Anglo-Saxon Purse

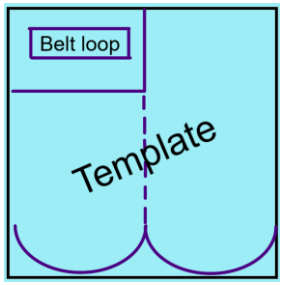
Before	Now	Next
Y2 Pirate hats	Y5 Anglo-Saxon purse	

Sutton Hoo is the site of two Anglo-Saxon cemeteries dating to the 6th and early 7th centuries CE that is located near Woodbridge, Suffolk, England. One contained an undisturbed ship burial including a wealth of Anglo-Saxon artefacts of outstanding art-historical and archaeological significance, which are now held in the British Museum in London. Other sites had produced significant finds, but had previously been looted.

The ship-burial, probably dating from the early 7th century and excavated in 1939, is one of the most magnificent archaeological finds in England for its size and completeness, its meaning, the quality and beauty of its contents, and for the profound interest of the burial ritual itself.

Emphasise avoiding wastage with template.

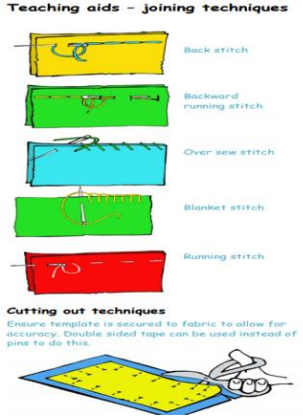
Cutting with suitable scissors.



Vocabulary

Fabric	A natural or man-made woven or knitted materials, that are made from plant fibres, animal fur or synthetic material.
Felt	A cloth made of wool or other animal fibres that have been pressed instead of woven together
Cotton	A British word for thread, often on a spool, used for sewing.
Thread	A fine cord used in sewing, weaving, and the like. Thread is usually made of two or more fibres such as cotton twisted together.
Thread (verb)	To pass (something) through a hole or slit.
Eye of the needle	The hole/slit in the needle.
Thread a needle	To pass a piece of cotton through the eye of the needle.
Sew	To join or fasten by stitches made using a needle and thread.
Design criteria	To help designers focus their ideas and test the success of them.
Detail	The small features of an object.
Template	A stencil that is used for making many copies of a shape.
Tie off	Leave a tail, make a loop, sew through loop not once but twice. (To secure the thread at the end of sewing).
Pin	To temporarily hold fabric in place prior to stitching.
Evaluation	When you look at the good and bad points about something, then think about how you could improve it.

Types of stitching



Knowledge Organiser Romans - Catapult

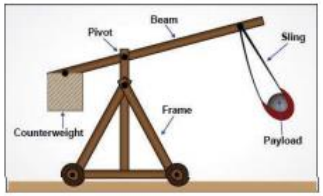
Before	Now	Next
Y5 Mars Rover	Y6 Catapults	

Key Knowledge

A **catapult** is a mechanism to **launch** a **missile**, such as a stone or spear, over a distance. In ancien times a catapult was used as a military weapon.

An ancient catapult involves the sudden release of tension to propel the missile.

The ancient Greeks and Romans used a crossbow-like weapon called a ballista which launched arrows, darts or stones at enemy soldiers.



A medieval trebuchet uses gravity and a heavy counter-weight to launch the **missiles**.

Technical Knowledge

Triangulation involves the use of triangular shapes to give stability to a structure. This can be seen on bridges or towers, such as the Eiffel Tower in France.

Triangulation can relate to hinged or pinned structures, these types of structure usually offer no resistance to bending movements when a force is applied. **Triangulation** allows the force to be spread.

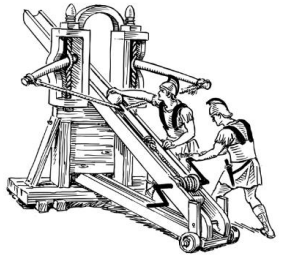
Vocabulary

Catapult	A mechanism used to launch a missile
Missile	An object which is forcibly propelled at a target, either by hand or from a mechanical weapon
Ballista	A type of catapult that works a little like a crossbow
Trebuchet	A catapult that uses a counterbalanced weight to fling the object forward
Mangonel	A catapult that uses a bucket and long wooden arm to fling the object forward
Onager	Similar to a Mangonel, but uses a sling to throw items
Forces	Energy caused by a physical action
Elastic	A material able to resume its normal shape spontaneously after being stretched
Energy	The strength required for physical and mental activity
Triangulation	Using triangle shapes in a structure to make it strong
Launch	To hurl something with force

Roman Catapults -

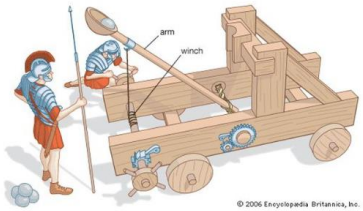
The Ballista

The ballista looked and worked like the scorpion, but it was bigger and much more powerful.



It could fire a 60lb (27kg) stone forward or a 3ft bolt (100m) and was capable of hitting a wall up to 550 yards (503m) away. This was far outside the range of enemy bowmen who could only fire the arrows to a distance of about 110 yards (100m). It therefore allowed the soldiers to set it up away from the enemy. It could also move with speed and was enabled to hit its target at speeds of 115mph and it was therefore likely to kill someone instantly or at least seriously injure them.

The Onager



The onager was a base frame with wheels at each corner. In the middle was a vertical framework with a crossbar at the top. At the bottom was a long beam of wood which was attached at the lower end to a very tightly twisted plaited rope. This was to give the spring action to the weapon. At the other end of the arm was a large spoon-like container that held the missile, which was normally filled with a heavy rock or masses of stones. The rocks could weigh up to 150lbs (68kg) and were used to smash through walls, ramparts and turrets.

Knowledge Organiser Y5 Mars Rover

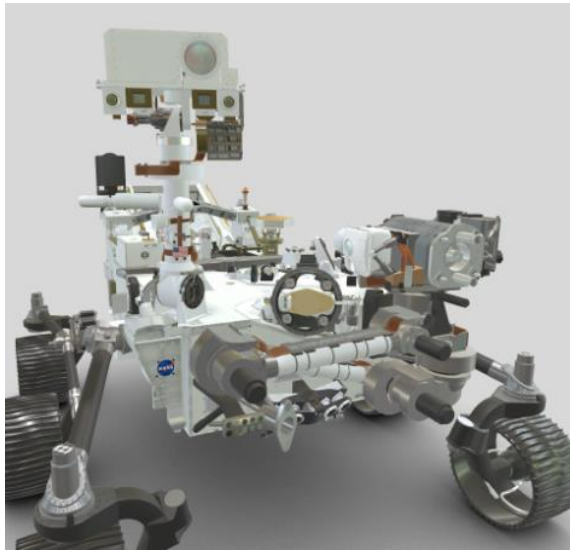
Before	Now	Next
Y4 Wind Turbines	Y5 Mars Rover	Y6 Catapult

Useful links

https://spaceplace.nasa.gov/mars-rovers/en/

https://mars.nasa.gov/mars2020/

Mars Rover - Perseverance



Mission Name: Mars 2020

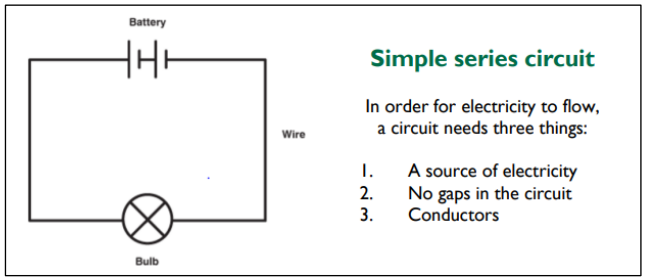
Rover Name: Perseverance

Main Job: Seek signs of ancient life and collect samples of rock and regolith (broken rock and soil) for possible return to Earth.

Launch: July 30, 2020

Landing: Feb. 18, 2021, Jezero Crater, Mars

Excavator arm



Simple series circuit

In order for electricity to flow, a circuit needs three things:

1. A source of electricity
2. No gaps in the circuit
3. Conductors

Component	Symbol	Purpose
Cell (Battery)		Provides electrical energy
Power supply		Alternative to using cells
Wire		Allows current to travel
Bulb/light		Converts electrical energy into heat and light
Motor		Converts electrical energy into movement energy
Buzzer		Converts electrical energy into sound energy
Switch		Allows circuit to be opened or closed

Key Vocabulary

Mars Rover	A vehicle designed for exploration on other planets
Robotic vehicle	A vehicle to provide a means to explore such hazardous sites at times of extreme danger.
Mechanisms	The whole or parts of a machine, mechanical system, or device
Excavator arm (bucket)	The arm on a digger used to puncture, scrape and collect earth) (The tool at the end of the arm)
Electrical circuit	The closed path followed by an electric current
Prototype	An original model on which later stages or forms are based or developed
Design criteria	The explicit goals that a project must achieve in order to be successful