

Tomb raiders - Science

Vocabulary	
Word	Definition
force	Pushes or pulls.
mechanism	A simple machine with moving parts that alters how forces act.
lever	Use to make a small force lift a heavy load. A lever rests on a pivot.
pivot or fulcrum	The point which a mechanism turns on.
pulley	A system of wheels and ropes which make lifting objects easier.
gear	Used to change the force or speed of a motion.
springs	A metal or plastic coil used to absorb a force

Previous Knowledge

In KS1 & YR you played with toys that needed to be pushed or pulled in order for them to move.

In Y3 you: Explored how well objects move across different surfaces; learned the word friction; Learnt the term friction.

Earlier this year you: explained how gravity works; investigated different forms of friction; began to recognise differ mechanisms.

Science Key Concepts					
Working Scientifically	Biology - Plants	Biology - Humans	Biology - Animals	Chemistry - The 3 States of Matter	Environment
Chemistry - Changing State	Physics - Forces	Physics - Electricity & Magnetism	Physics - Waves	Physics - Weather & Space	

mechanisms

The diagrams illustrate three types of simple machines: 1. Gears: Two interlocking gears are shown. The larger gear on the left is labeled 'load' and the smaller gear on the right is labeled 'effort'. A fulcrum is indicated between them. 2. Pulley: A wheel with a rope passing over it. A bucket labeled 'load' is attached to one end of the rope, and a hand pulling the other end is labeled 'effort'. The wheel is labeled 'fulcrum'. 3. Lever: A long bar resting on a triangular support labeled 'fulcrum'. A person is sitting on one end, labeled 'load', and another person is pushing down on the other end, labeled 'effort'.

Pulleys, levers and gears in action

This section shows practical applications of mechanisms. At the top, a photograph shows a person rock climbing, using ropes and pulleys. Below the photo are two diagrams: 1. Hammer: A hammer head is shown with a green arrow labeled 'Load' at the tip, a pink arrow labeled 'Fulcrum' at the base, and a blue arrow labeled 'Effort' at the handle. 2. Scissors: A pair of scissors is shown with a pink arrow labeled 'Fulcrum' at the pivot, a blue arrow labeled 'Effort' at the handles, and a green arrow labeled 'Load' at the blades.

Spellings: equipment, achieve, develop, explanation, physical, recognise, system, vehicle