

Knowledge Organiser

Year 6— Structures, Mechanisms, ICT & Electrical Systems



How do we make our structures stronger?

Vocabulary	
Audience	the people reached
develop	to bring out the potential of;
	advance to a more complete or
	more effective condition.
sketches	a drawing or painting that was
	done in a hurry or without de-
	tail. Sketches are sometimes
	done to prepare for later work.
prototype	an original model on which later
	stages or forms are based or de-
	veloped.
Pattern piece	an arrangement of shapes, a sec-
	tion or part separated from the
	whole.
design	to plan for a certain goal or pur-
	pose.
accurate	careful and precise.
Aesthetic qualities	having to do with beauty
Applique	decorated with cut-out pieces of
	another material that are
	stitched on or otherwise applied.
Fastener	device that joins together or fas-
	tens.
Triangulation	a system used by navigators and
	surveyors to calculate the dis-
	tance between two points
Crumble Boards	An easy-to-use programmable
	controller. It can drive 2 motors
	forward and backwards at varia-
	ble speeds.

What should I already know?

EYFS - simple mechanisms, simple structures.

Year 1—leavers

Year 2—wheels and axels

Year 3—leavers and linkages, free standing structures

- Year 4—CADs designing and electrical circuits
- Year 5—CAMs to create a moving toy

What will I know by the end of the unit?

Children will design and make a fairground ride with gears, pulleys, linkages and wheels. Use triangulation to create a sturdy structure. Design and plan their fairground ride on Purple Mash. Use electronics add lights, motors using Crumble Boards.

Notable Inventor

Henry Ford was an American industrialist, business magnate, founder of the Ford Motor Company, and chief developer of the assembly line technique of mass production. By creating the first automobile that middleclass Americans could afford, he converted the automobile from an expensive luxury into an accessible conveyance that profoundly impacted the landscape of the 20th century.