Year 2 – Summer	DT Knowledge Organiser
Unit of work:	Making a Fire Engine
Links to other year groups:	

Grow Flourish Think

BIRKENHEAD HIGH SCHOOL ACADEMY
Junior School Vision Statement
GDST

BE: RESPECTFUL
BE: FORGIVING
BE: KIND

Key Vocabulary:

Wheels A circular object that rotates on an axle and is fixed below a vehicle or other object to enable it to move easily over the ground. .

Axle A rod or spindle passing through the centre of a wheel or group of wheels.

Chassis The base frame of a car, carriage or other wheeled vehicle.

Body The frame of the car or vehicle.

Criteria A standard or test by which to judge or decide.

Join Link or connect together.

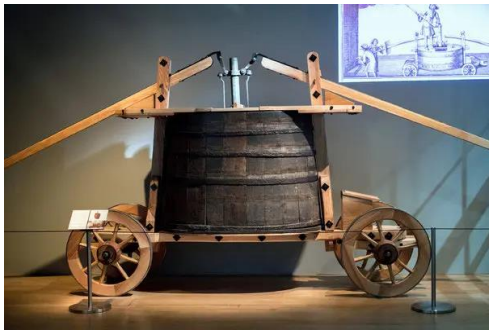
Attach To join or fasten (something) to something else.

Fixed Fastened securely in position so that it doesn't move.

Rotate Move or cause to move in a circle around an axle or centre.

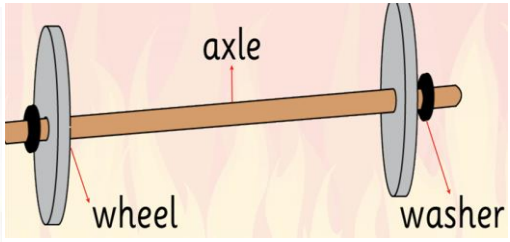
Real World Examples:

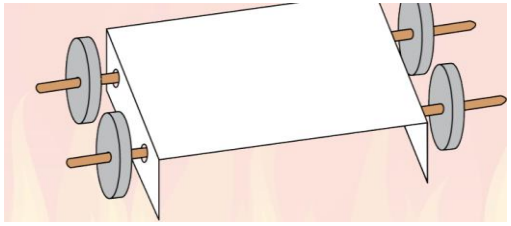
Modern Fire Engine



17th Century Fire Engine

Constructional Diagrams & Key Info:





Important People:

John Keeling

Although some fire engines were used to try and fight the Great Fire of London, they weren't that effective.

It became clear that better fire-fighting techniques needed to be developed. The first fire engine was developed by **John Keeling**, in about 1678, in his workshop in Blackfriars.

James Braidwood

He founded the world's first municipal fire service in Edinburgh after the Great Fire of Edinburgh in 1824 destroyed much of the city's Old Town.

He introduced a uniform for the fire service. This was the first time that fire fighters had a uniform that included personal protection from the hazards of firefighting.

Sequence of Lessons	
	Brief summary of lesson content
Lesson 1 To explore modern fire engines	Explore modern fire engines and their features, looking at what features are common to all vehicles and which are specific to fire engines. Look at a 17th century fire engine to compare how they are similar and different to modern fire engines.
Lesson 2 To investigate wheels, axles and chassis.	Explore how wheels, axles and chassis work together to create the base of a fire engine. Explore different ways of attaching the chassis to the axles.
Lesson 3 To be able to investigate ways of creating the body of a fire engine.	Investigate different ways of creating the body of a fire engine, using materials such as cardboard boxes, lolly sticks and other craft materials. Explore how to create features such as ladders and fire hoses, considering which materials and tools are best suited for different tasks.
Lesson 4 To be able to design a fire engine.	Design own fire engines, based on previous learning. Consider which materials and tools will be needed, noting design ideas using notes and diagrams. Design a modern or a 17th century fire engine to specific design criteria
Lesson 5 5 To be able to make a fire engine based on a design.	Children will follow designs to create their own fire engines, using a range of different materials, tools and techniques.
Lesson 6 To be able to evaluate a finished product.	Children will evaluate their own fire engines, as well as fire engines made by their peers. They will consider what went well, what could be improved upon and what they could do differently if they were to make their fire engines again.