

What should I already know?

- We have learnt that sliders can be used to make moving pictures.
- We have learnt and understand the vocabulary: 'pivot,' and 'lever.'
- We have developed our cutting skills.
- We have used the processes of: plan, design, make and evaluate and understand what each of these stages means.

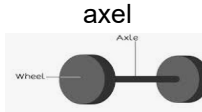
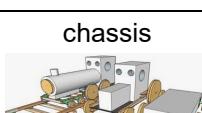
Design and Technology Knowledge Organiser

Topic: Moving Vehicles

Strand: Construction



Vocabulary

 axle	The axle is the rod that goes right through the very centre of the wheel to help it move and stay in place.
 bench hook	This is a something that is held at the front of the table to help saw the dowel easily and safely.
 chassis	The frame that supports the body and engine in a vehicle.
 dowel	This is a round rod that can be cut and wheels attached to make a vehicle move.
 prototype	A prototype is a practice model of the final product to see if all the parts fit and are in the correct places.
 wheel	This is a round object that turns on an axle.

What new skills and knowledge will I acquire?

- I will:
- learn the new vocabulary of: axle, chassis and dowel.
 - find out and understand how an axle, wheels and chassis can make a wheel mechanism.
 - make a prototype and learn the importance of doing this prior to making my final model.
 - learn how to use a hole punch safely and sensibly.
 - learn what a hack saw and bench hook are and how to use these safely and sensibly.
 - learn how to cut my dowel to the correct size using a hack saw and bench hook to be safe.
 - learn how to use sand paper to smooth the rough edges of my dowel.

What will I be able to do by the end of the unit?

Design

Look at a range of existing **products** and express my opinions.



Choose the best tools and materials for my vehicle.

Create a design following **design criteria** and describe it using pictures, words and diagrams.



Make

Use a **hacksaw** and **bench hook** to cut my **dowel** for my **axle** of my **vehicle**.

I will add **coloured paper** to my box for my chosen **vehicle** and embellish with **shiny paper** for **windows** and **tissue paper** for a **siren**.

I will **attach** my **wheels** to my **axle** to make a **moving vehicle**.

Evaluate



Evaluate my work against my **design criteria**.

Evaluate my **product** identifying strengths and possible changes I might make.

Existing products

We will **explore** existing moving vehicles to find out how they are made and how they move, eg fixed wheels or fixed axles.

