



## Busy Gizmos!

**Year 2** (build structures, exploring how they can be made stronger, stiffer and more stable explore and use mechanisms in their products)

### Important Ideas:

- The process of change: how have things changed between your grown-ups' childhood and yours?
- That every new invention has a design process and a consumer.

### You have already learned:

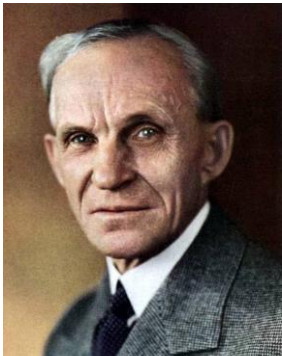
- How technology has changed to improve lives.
- About some significant people in the past.
- Basic attachment techniques to build 3D structures, including split pins for rotating parts.

### Key Tier 2 Vocabulary:

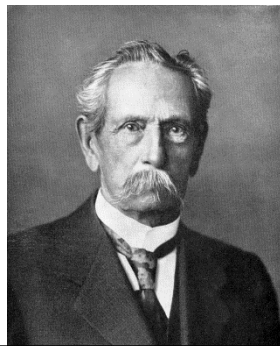
<b>Invention</b>	A new thing which someone has made.
<b>Design</b>	A drawn plan for something which is going to be made.
<b>Joining</b>	The different ways we can attach two materials together.
<b>Design Criteria</b>	The goals a project must achieve to be successful.
<b>Evaluate</b>	Reflecting on how successful something was.

### Key Tier 3 Vocabulary:

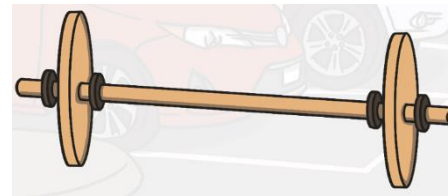
<b>Karl Benz</b>	Invented the first petrol car.
<b>Henry Ford</b>	Created the Ford Motor Company who began to mass produce cars.
<b>Axle</b>	The rod that going through the wheel to help it move and stay in place.
<b>Wheel</b>	A round shaped mechanism which helps things to roll along a surface.
<b>Chassis</b>	The main frame or body of a vehicle.
<b>Vehicle</b>	A machine which carries people from place to place.



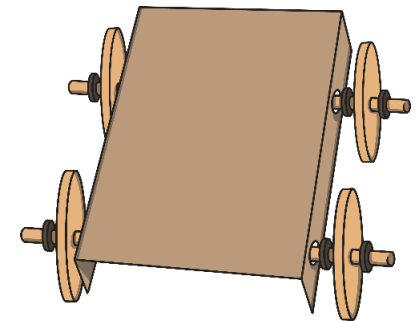
Henry Ford



Karl Benz



Wheels and Axles



Chassis

### Sticky Knowledge – I will know:

- That Karl Benz invented the first petrol car.
- That Henry Ford was the founder of the Ford Motor Company who were the first people to mass produce cars. This meant that cars were more easily accessible.
- That modern cars can run on petrol, electricity or a hybrid of both.
- That cars in the past were less energy efficient.
- That an axle can either be 'fixed' or 'free'.
- That with a 'fixed' axle, the axle stays still and the wheels rotate on the axle.
- That with a 'free' axle, the axle and the wheels rotate together.

### Design & Technology/History Skills – I will be able to:

- Explain the differences between a 'fixed' and 'free' axle.
- Design and make a wheeled vehicle
- Describe different types of transport and discuss how they are used.
- Describe the differences between old and new cars.

### Timeline

