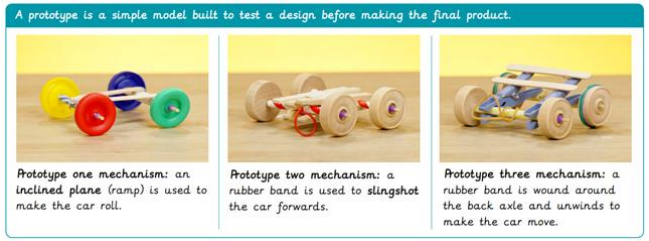
Year 4: Design Technology
Autumn 2
Mechanical Cars

Key Knowledge

- Describe key design improvements in the history of the automobile.
- Measure and compare the distance travelled by different mechanical cars.
- Choose and use appropriate tools and materials to make prototypes of mechanical cars.
- Draw exploded diagrams and annotated sketches of my different mechanical cars.
- Use a problem statement to identify the design criteria.
- Assess the product against the design criteria.
- Conduct market research into existing products.
- Provide specific feedback and adjust my design to incorporate customer feedback.



Key Vocabulary

bearing
chassis
force
machine
mechanism
prototype
target
audience

Learning questions

What is a mechanism, and what types of mechanisms can be used in a moving car?

How does a slider or lever create movement in a mechanical car?

How can you use a lever or slider mechanism to make part of your car move?

What are the similarities and differences between lever and slider mechanisms in a mechanical car?

Why might one mechanism be more suitable than another for your car design?

How well does your mechanical car meet the needs of the user, and what improvements could be made?

How can you design and make an original mechanical car that uses movement effectively to communicate a message or tell a story?