

# ELECTRICAL & MECHANICAL SYSTEMS: MOTORISED VEHICLES

Design, make and evaluate electric vehicles (**product**) for younger children (**user**) to raise awareness of the climate emergency (**purpose**).

*Key Focus: Pulleys and motors*



## KEY KNOWLEDGE AND SKILLS

- Understand that mechanical and electrical systems have an input, process and an output.
- Understand how motors and pulleys can be used to generate movement.
- Know and use technical vocabulary relevant to the project (e.g., pulley, axle, motor).

## RELEVANT PRIOR LEARNING / UNITS

- Y2 Experience of axles, axle holders and wheels that are fixed or free moving.
- Y4 Understanding of series circuits, including the use of simple switches and other components.
- [Multiple D&T units] Experience of cutting and joining techniques with a range of materials including card, plastic and wood.
- Y4 and Y5 An understanding of how to strengthen and stiffen structures.

NAME: \_\_\_\_\_