

Year 5 – Electric Cars
Electricity Mechanics

Prior Learning

From Year 1 and across the curriculum, children have been learning about circuits and electricity. In Science lessons they have been using motors but this will combine scientific and mechanical knowledge by asking the children to make an electric moving car.



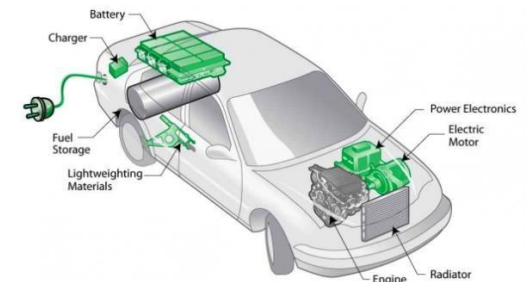
Key vocabulary and information

Axle	A rod or spindle (either fixed or rotating) passing through the centre of a wheel or group of wheels.
Chassis	The base frame of a car, carriage, or other wheeled vehicle.
Wheels	A circular object that revolves on an axle and is fixed below a vehicle or other object to enable it to move easily over the ground.
Battery	A store of electricity
Pulleys	A pulley is a loop of rope over one or more wheels.
Circuit	Electric circuit, path for transmitting electric current. An electric circuit includes a device that gives energy to the charged particles constituting the current, such as a battery or a generator; devices that use current, such as lamps, electric motors, or computers; and the connecting wires or transmission lines.



An example of a battery operated car project.

Electric cars function by plugging into a charge point and taking electricity from the grid. They store the electricity in rechargeable batteries that power an electric motor, which turns the wheels.



Examples of Electric cars

Nissan Leaf



Hyundai Ioniq Electric



Tesla Model X



Internet Resources

<https://www.makerspaces.com/diy-mini-electric-car/>