Year 6: I want a vehicle to enter the race without me having to push it

Subject Specific Vocabulary

Gears	a wheel with teeth around its circumference
Pulleys	a grooved wheel over which a drive belt can run
Mechanical system	a set of related parts or components used to create movement.
Driver	the gear or pulley that provides the input movement to the system.
Mesh	the point where two gears join together and transfer movement.
Output devices	components that produce an outcome e.g. movement
Input devices	components that are used to control an electrical circuit e.g. switches.
CAD	Computer Aided Design is when 2D, or 3D computer software is used towards the design process.
Pioneer	A person who is among the first to study or develop something
Axel	a rod on which one or more wheels can rotate, either freely or be fixed to and turn with the axle
Motor spindle	the rod on the end of the motor onto which a gear or pulley is attached.
Chassis	the frame or base on which a vehicle is built.

Dorothee Pullinger 1894 - 1986

Dorothee Pullinger was an engineer and pioneering business women. She was behind the design and manufacture of the Galloway automobile. This was the first ever car designed specifically for women.



Careers

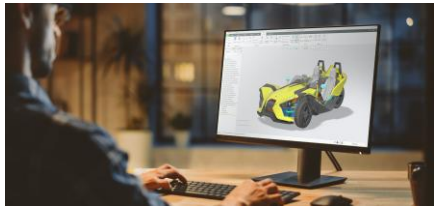
- **Auto engineer** – design and build automobiles.



- **Electrical engineer** – design, build and maintain electrical systems Including cars, computers, Telecommunications, sustainable power systems and heating systems.

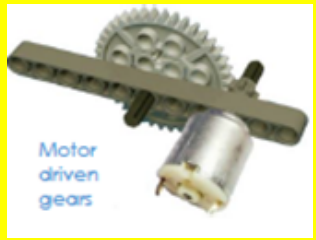


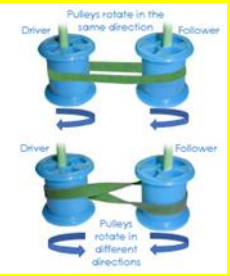
- **CAD design engineer.** Design products using computers.



Sticky Knowledge

Gears and pulleys can be used to speed up, slow down or change the direction of movement.

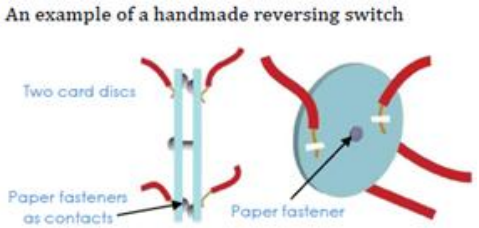




Know that combinations of two different sized pulleys or two different sized gears affect the direction and speed of the rotation.

Switch ideas

- A reversing switch



- A toggle switch

