

DT

Fairground Rides

Year 6

What I should already know

- Fairground rides use a series of motors and switches to work. (See Y4 Science Electricity, Y4 DT Light up Signs)
- How to make a simple series circuit to include a motor. (See Y4 Science Circuits, Y4 DT Light up Signs)
- How to strengthen and reinforce a simple structure. (See Y3 DT Photo Frames, Y4 DT Bridges)



Vocabulary

Pulley systems	A wheel on a axle or shaft that is designed to support movement and change of direction.
Belt system	A loop of flexible material used to link two or more rotating shafts mechanically.
Rotation	The act of turning about a centre.
motor	A machine that supplies motive power for a vehicle or other device.
Transfer	Move from one place to another.
Framework	An essential supporting structure of a building, vehicle or object.
Electrical Circuit	A roughly circular route that starts and finishes at the same place.
Driver	A part in a mechanism that receives power directly and transmits motion to the other parts.
Program	A series of coded instructions to control the operation of a computer or object.

Technical Knowledge and skills

- Design an appropriate electrical circuit for their ride.
- Design a structure for their fairground ride using TinkerCAD.
- Follow a design to create a fairground ride with a rotating part .
- Work accurately and safely with a variety of tools, materials and electrical components.
- Identify ways of improving their fairground rides to create a finished product of a high quality .

Sticky Knowledge

John Wardley is a British developer for theme parks in the UK and Europe. He has created rides such as Nemesis and The Smiler.

Identify every day objects that use electrical motors to cause rotation.

How to make an electrical circuit with a motor.

Describe how to reinforce and strengthen structures.

Describe how an electrical circuit with a motor can be used to create rotating parts, and how this is done in fairground rides.

Pulley and belt systems can be used to transfer movement.