SFET South Farnham Educational Trust	DT Subject Knowledge Organiser		
	Autumn Term	**Year 6**	**Fairground Ride Mechanism - Design**

What prior knowledge should students have?

- Vocabulary (electric, circuit, motor, mechanism, frame)
- What a fixed frame is.
- How to test a mechanism.
- Annotating and evaluating a product.

Key Vocabulary	Definition
Mechanism	A device that we can create, simple or complex, mobile, or fixed
Motor	A motor converts electrical energy into mechanical energy.
Electricity	A flow of charged particles.
Sanding	The process of smoothing a surface by removing fine particles.
Constructing	Building a three-dimensional structure using different shapes and materials.
Rotation	The circular motion of an object around its centre.

What skills will students learn? (Disciplinary Knowledge)

- Learn about electric motors.
- Learn about testing accurately a moving mechanism.
- How to create a fixed frame.
- Learn how to include an electric motor in a circuit.
- Learn how to construct a model that meets the success criteria.
- Learn how direction of rotation and speed of the motor can be controlled using a pulley and belt.

What key knowledge will be taught? (Substantive Knowledge)

- What a fairground ride project is and the structure of the learning.
- How to design, draw and annotate a model fairground ride.
- How to construct a base using different materials that are suitable for the project.
- What the mechanical components of a fairground ride model are.
- How to improve and overcome any possible issues with model design.
- How to evaluate model against the success criteria of a specific project.

Diagram