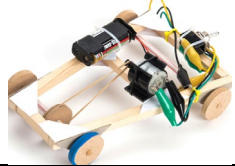


Year B Autumn

Lostwithiel Primary School

Topic/Theme



DT Knowledge Organiser

Year Six

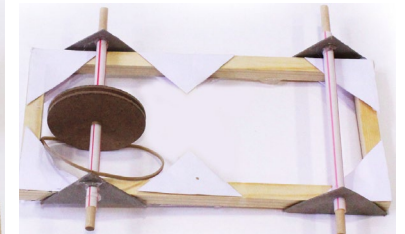
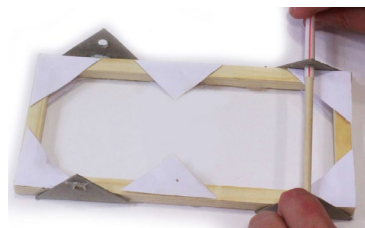
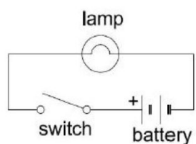
Conkers Class

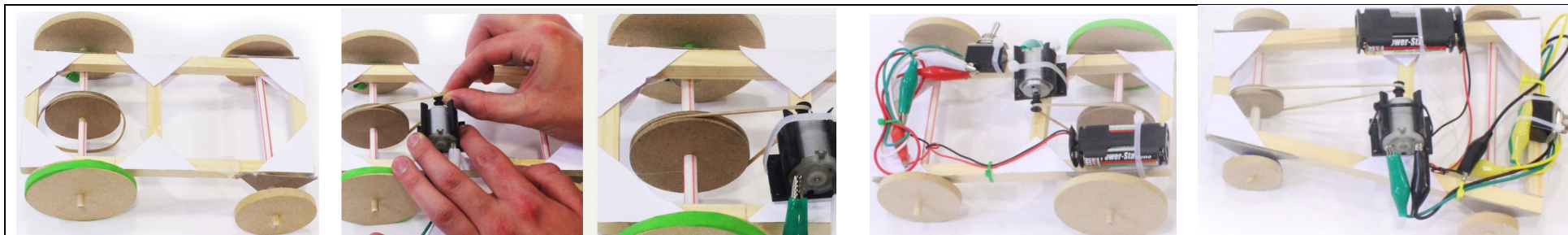
**Prior Learning:**

- Children will have knowledge of structures from previous study and understanding of electricity and circuits (Year 4 and Year 6 - Autumn term)

**Key DT knowledge and skills:**

- Structures are built for a purpose - to support something or hold something up.
- Frame structures give shape and are useful for support and weight bearing. They have joints which are formed according to the design requirements and materials being used
- Triangulation can help to make structures stronger which is important to consider when creating stable joints. When force is applied to one point on the triangle, the pressure is shared amongst the two points which provide a secure base
- Model ideas using mechanisms, by using construction kits or making a model from a set of instructions
- Incorporate mechanical and electrical systems in their products
- Products can be driven by electricity
- Investigate and disassemble products in order to learn how they work and how they are made
- Use circuits and switches, make secure connections, use motors to transfer movement to an axle and control the direction and speed of the movement.
- Generate and model ideas through discussion and drawing
- Design and make as part of a team
- Select appropriate tools, materials, components and techniques
- Plan the main stages of making
- Construct products using permanent joining techniques
- Evaluate their work according to their design criteria and to suggest improvement





**Key DT Vocabulary -**

**General Terms and Cross Curricular Vocabulary**

<b>Axes</b>	Lines on which something rotates, or a straight line around which things are evenly arranged. A straight central part in a structure to which other parts are connected.	<b>Construct</b>	To build or make something.
<b>Chassis</b>	The base frame of a car, carriage, or other wheeled vehicle.	<b>Generate</b>	To produce or create.
<b>Structure</b>	The arrangement of and relations between the parts or elements of something complex.	<b>Incorporate</b>	Take in or contain (something) as part of a whole; include.
<b>Joint</b>	A point at which parts of an artificial structure are joined.	<b>Disassemble</b>	Take something apart / into pieces.
<b>Mechanism</b>	A system of parts working together in a machine; a piece of machinery.	<b>Triangulation</b>	Formation of or division into triangles.

**DT Outcome**

**Cross Curricular Links**

Design and make a moving vehicle, incorporating an electrical circuit for a specific purpose - to carry an egg safely across a specific distance across uneven ground.

Science - Electrical circuits

Maths - use of triangles to strengthen structures / 2D shapes

Linked documents: [Class Overview](#), [DT Whole School Progression document](#) and [Class Medium Term Planning](#).