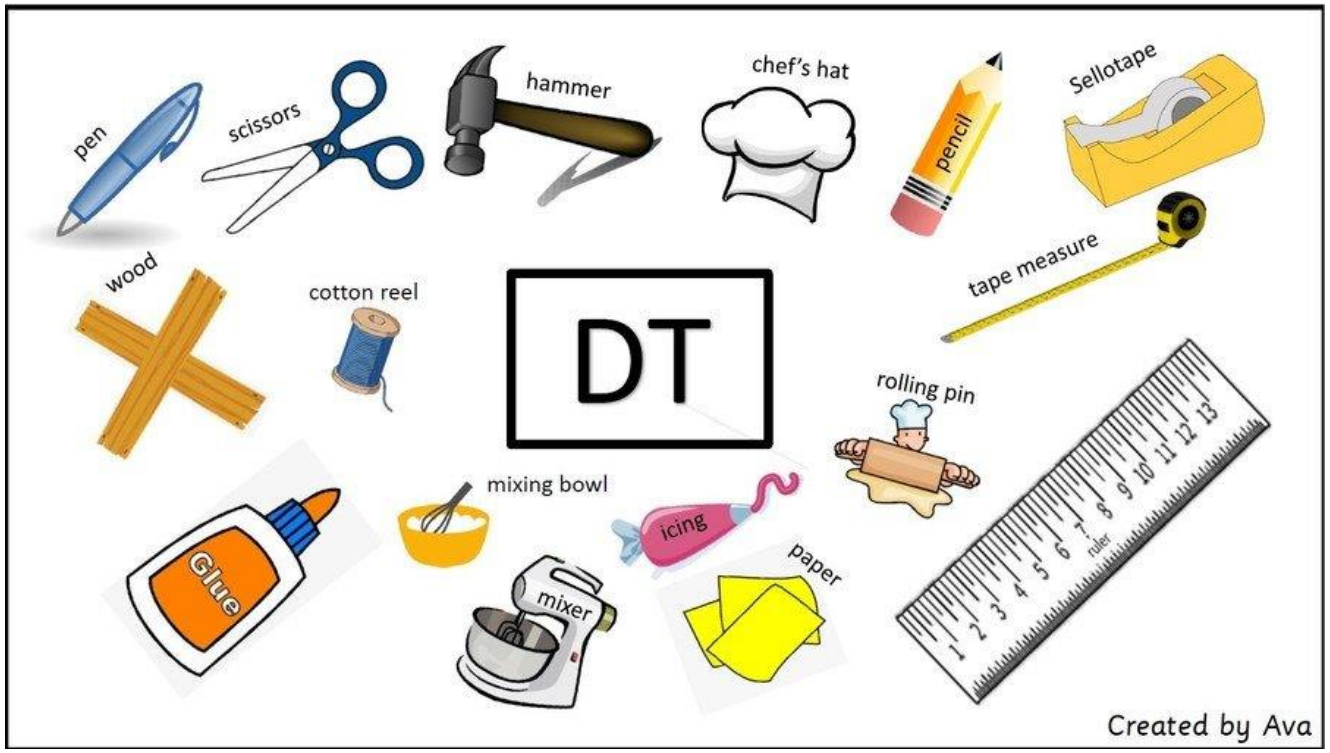
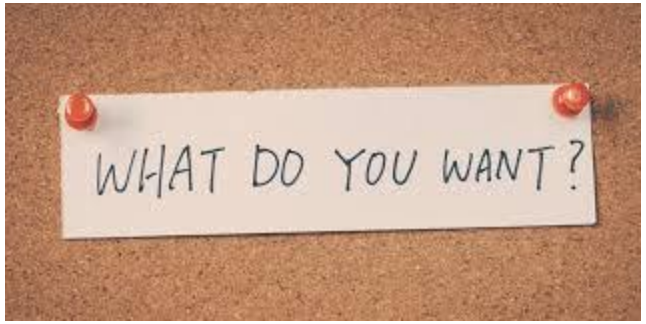
WHAT DOES DT LOOK LIKE AT ROSSMERE?



Intent Statements: BE AMBITIOUS, BE DIVERSE, BE CREATIVE…

1. Be ambitious and confident to prepare and cook a range of different food types for life beyond Rossmere.



2. Be inspired by a variety of diverse, creative designers to realise full potential and broaden horizons.

3. Be motivated and a critical thinker when designing and making a variety of products.

4. Provide exciting and ambitious internal and external opportunities for children to make a positive contribution to their community.

Implementation

BE **PURPOSEFUL**...At Rossmere, Design Technology is linked, where possible, to cross curricular projects/topics to help children to make **meaningful** links and to **immerse** children further into their learning.

Each year group should use the following format: investigate, focus task, design, make and evaluate over the course of the school year.

To ensure high standards of teaching and learning in Design and Technology, we implement a curriculum that is **progressive** throughout the whole school. Teachers use the **progression** document to ensure the curriculum is covered and the skills/knowledge taught is **progressive** from year group to year group. Units of work are carefully organised on the schools DT long term plan so that over the course of each key stage children will experience projects on **food technology, structures, textiles (linked to art) mechanisms and electrical systems.** The skills and knowledge have been allocated to year groups and have been **revisited to ensure progression and coverage.**

Implementation

We implement cooking by providing opportunities over the year to plan a nutritious product and bring the product to life using the dining hall, which contains a vast selection of cooking equipment and space for the children to make a **high-quality** product.

Throughout the year, **internal and external opportunities** will be promoted across school to encourage children to find their passion in design and technology. These opportunities range from workshops at the local power station to nationwide competitions like "Young Inventors".

Within teaching, staff introduce different, **diverse designers** to show how different people achieved success within different areas of DT. This with the intent to **inspire.**

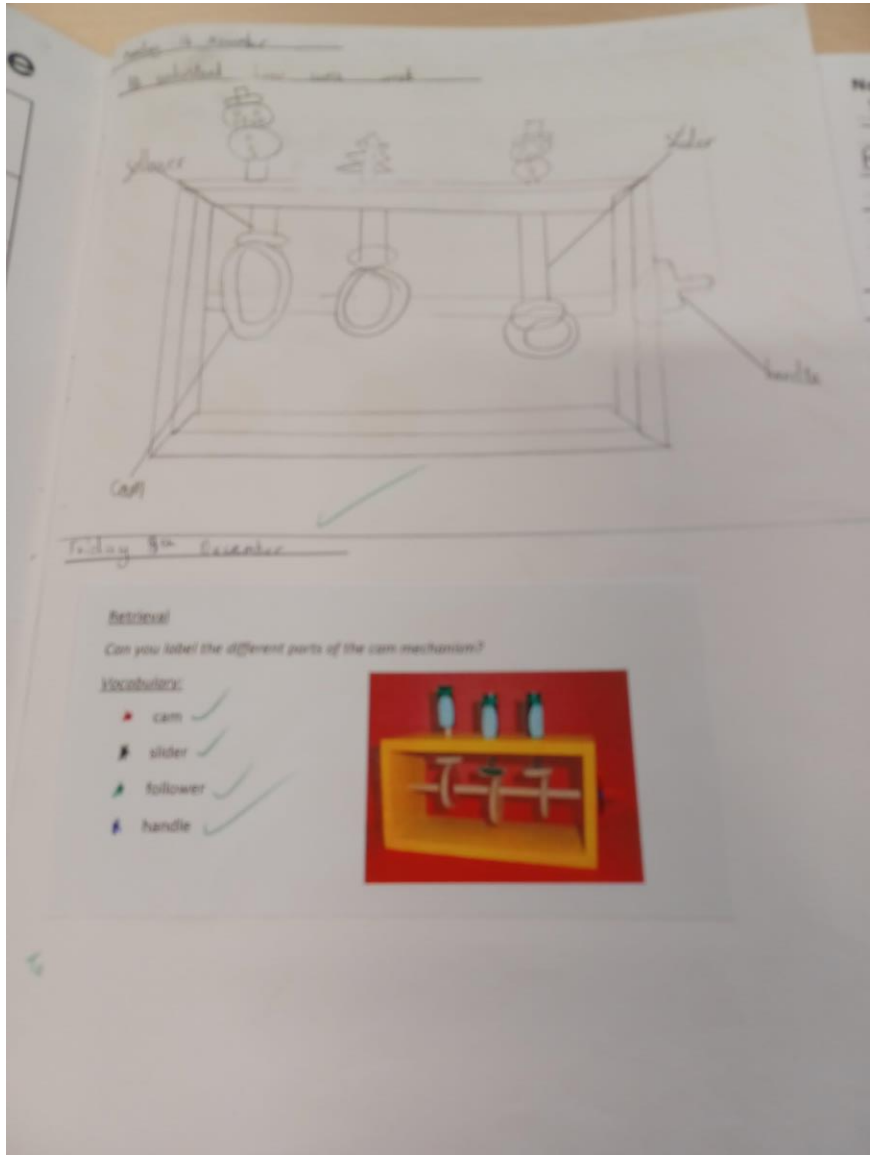
Staff should follow the whole school format for each part of the design process. There will be a differentiation between KS1 and KS2. Staff should start each lesson with a retrieval question to assess what skills and knowledge the children acquired in the previous session.

Implementation

Retrieval questions for recapping...

AT THE BEGINNING OF EVERY DT SESSION, THERE SHOULD BE AN OPPORTUNITY FOR CHILDREN TO RECAP LEARNING FROM PREVIOUS LESSONS.

THE IMAGE SHOWS AN EXAMPLE FROM NEW SILKSWORTH.



Implementation

Retrieval questions for recapping…

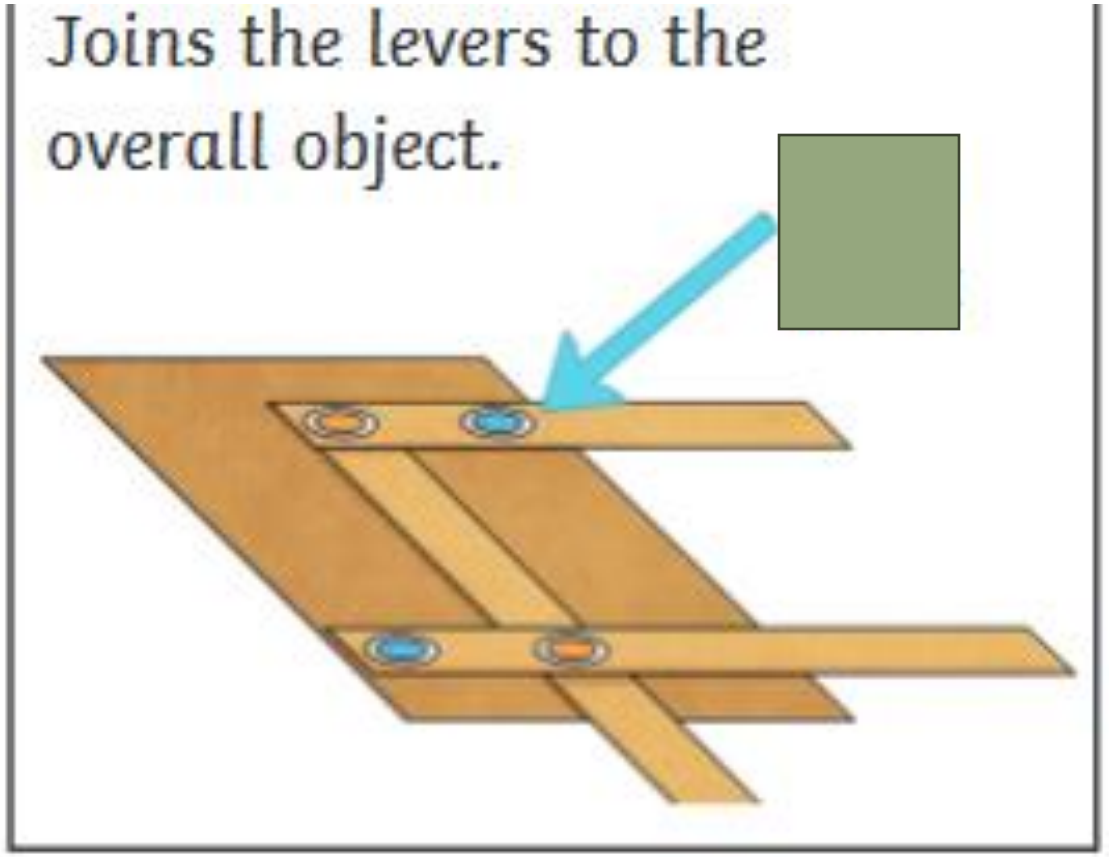
WHAT IS THE ARROW POINTING TO? TICK ONE:

LOOSE PIVOT

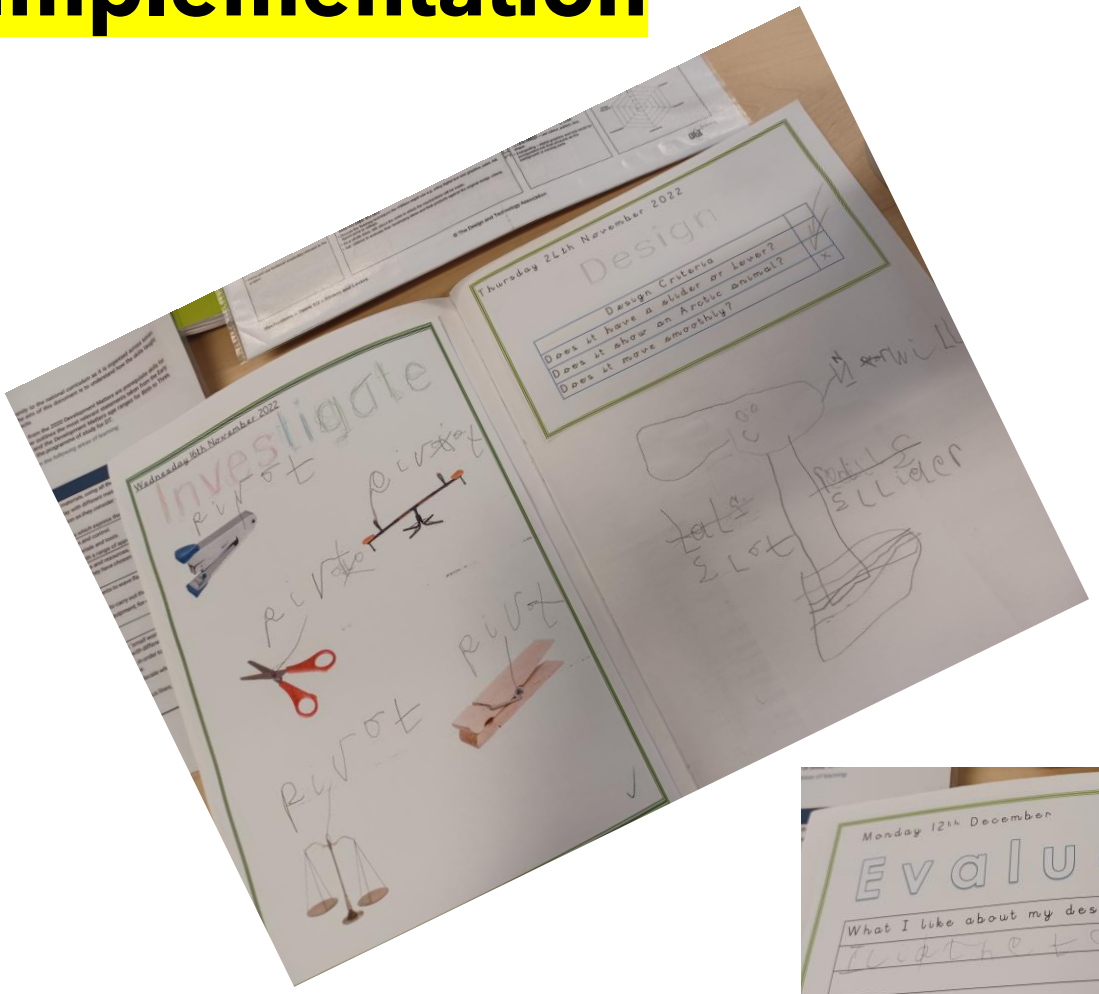
FIXED PIVOT

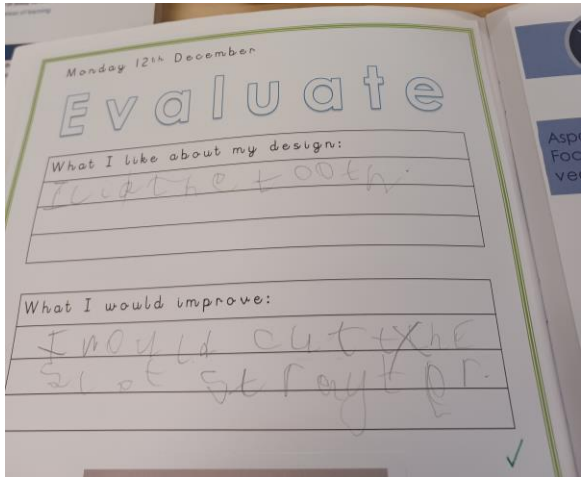
LINKAGE

LEVER



Implementation





IMPACT

Pupils develop a love of cooking and become excited by experimenting with a variety of ingredients (some they may not have tried before). ·

Pupils are confident to use a range of cooking equipment and utensils – they understand how to use them appropriately and safely. ·

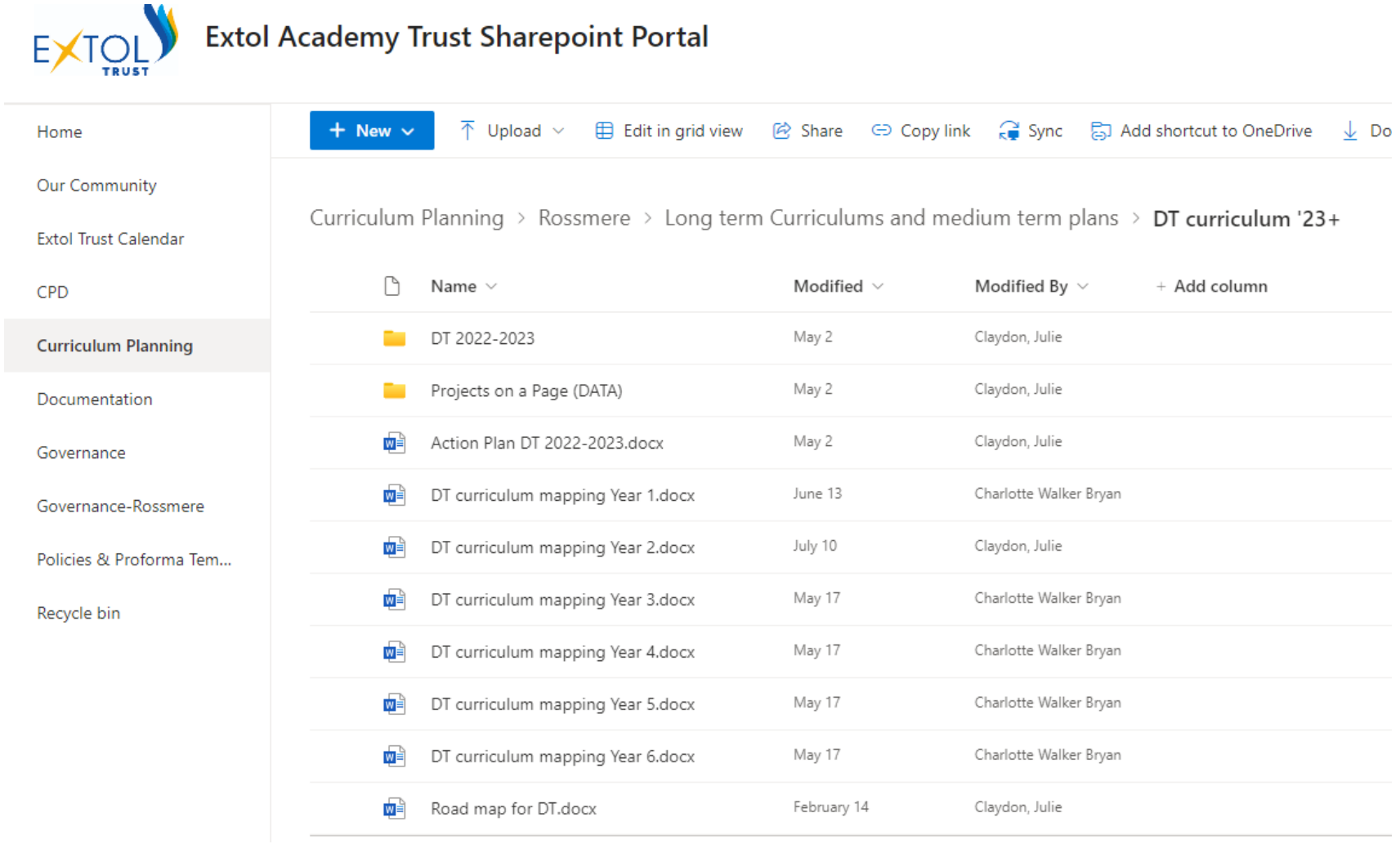
Pupils can use a variety of tools confidently when building structures and evaluate their work. ·

Pupils can identify the purpose and audience of their DT projects and articulate this.

Pupils have the opportunity to participate in exciting and ambitious STEM activities internal and external in order to build their own cultural capital and to make a positive contribution to their community. ·

Pupils are inspired by a diverse group of designers and use their ideas in their own designs.

Where to find your long and medium term planning...

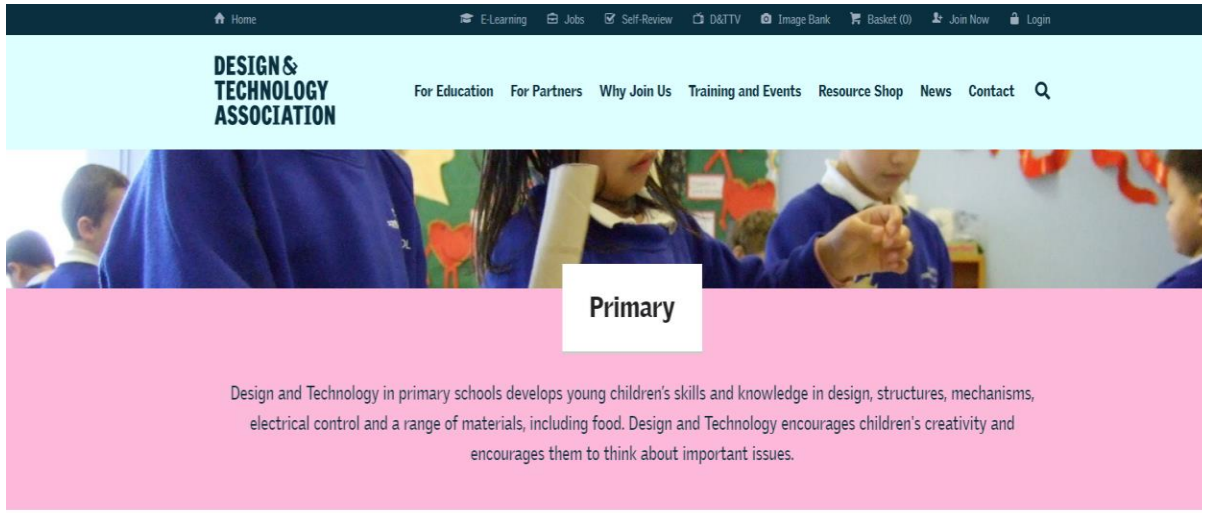


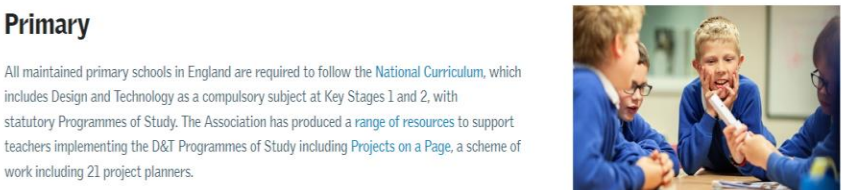
DT Curriculum mapping Year 6

	Mechanisms/structures Pulleys and gears	Cooking and nutrition Making a vegetarian chilli	Electrical systems More complex switches and buzzers
Design and Technology – Thinking like an engineer. Thinking like a cook.			
DT NATIONAL CURRICULUM	**Design** Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups. Generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design. **Make** Select from and use a wider range of tools and equipment to perform practical tasks accurately. Select from and use a wider range of materials and components, including construction materials according to their functional properties and aesthetic qualities **Evaluate** investigate and analyse a range of existing products. Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. Understand how key events and individuals in design and technology have helped shape the world. **Technical knowledge** Understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages].	**Design** Use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups. Generate, develop, model and communicate their ideas through discussion, annotated sketches. **Make** Select from and use a wider range of tools and equipment to perform practical tasks accurately. Select from and use a wider range of ingredients, according to their functional properties and aesthetic qualities. **Evaluate** investigate and analyse a range of existing products. Evaluate their ideas and products against their own design criteria and consider the views of others to improve their work. **Cooking and nutrition specifics** Understand and apply the principles of a healthy and varied diet. Prepare and cook a variety of predominantly savoury dishes using a range of cooking techniques. Understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.	**Design** use research and develop design criteria to inform the design of innovative, functional, appealing products that are fit for purpose, aimed at particular individuals or groups generate, develop, model and communicate their ideas through discussion, annotated sketches, cross-sectional and exploded diagrams, prototypes, pattern pieces and computer-aided design. **Make** select from and use a wider range of tools and equipment to perform practical tasks [for example, cutting, shaping, joining and finishing], accurately. select from and use a wider range of materials and components, including construction materials, textiles and ingredients, according to their functional properties and aesthetic qualities. **Evaluate** investigate and analyse a range of existing products evaluate their ideas and products against their own design criteria and consider the views of others to improve their work understand how key events and individuals in design and technology have helped shape the world. **Technical knowledge**

design brief	
Design task A – Design, make and evaluate a toy vehicle with gears or pulleys e.g. dragster (Summer) Intended user – peers Purpose of the product - play	
Aspect – Mechanisms	Focus – gears and pulleys
Knowledge for this design project	**Skills for this design project**
• Pulley – a grooved wheel over which a drive belt can run. • Gear – a wheel with teeth around its circumference. • Drive belt – the belt which connects and transfers movement between two pulleys. • Gearing up or down – changing the rotational speed of a product by the use of pulleys or gears. When a small pulley or gear is used to drive a larger one the rotational speed is reduced and the product has been geared down. • 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. • Follower – the gear or pulley that provides the output movement to the system. • Mesh – the point where two gears join together and transfer movement. • Motor spindle – the rod on the end of the motor onto which a gear or pulley is attached.	**Investigative and Evaluative Activities (IEAs)** Investigate, analyse and evaluate existing everyday products and existing or pre-made toys that incorporate gear or pulley systems. Use videos and photographs of products that cannot be explored through first-hand experience. Use observational drawings and questions to develop understanding of each product in the collection. Key Questions – *How innovative is the product? What design decisions have been made? What type of movement can be seen? What types of mechanical components are used and where are they positioned? What are the input, process and output of the system? How well does the product work? Why have the materials and components been chosen? How well has it been designed? How well has it been made?*
• Investigate famous manufacturing and engineering companies relevant to the project.	Research and, if possible, visit engineering and manufacturing companies that are relevant to the product they are designing and making e.g. Jaguar Land Rover, JCB, local companies.

There are more resources on the DT Association...





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1360755	Ms Karen Anderson	1360755
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1360753	Ms Charlotte Walker-Bryan	1360753
1360752	Ms Catherine Douglas	1360752
1360751	Ms Katheryn Reeve	1360751
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1360747	Ms Kirsty Jacques	1360747
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Inspire our children to be ambitious and creative by exploring a range of diverse designers.