

**Intent:**

At Eastfield we aim to deliver a high quality Design and Technology curriculum that will help our children to build knowledge (procedural & declarative) and understanding of the technological world in which we live and how technology has changed over time. Key skills are the basis of the DT curriculum which will be explored and applied through structures, textiles, food technology and electrical systems. It will provoke challenging questions about how things work, design adventures, considering the consumer's requirements while making and creating something new based on research and key skills taught. It will develop pupils' knowledge and understanding of the ever evolving world of technology, taking into account the past and being innovative in creating something new for the future.

**We aim to develop our children's**

**Knowledge and understanding of:**

**A variety of creative and practical activities:**

**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

**Technical knowledge**

- apply their understanding of how to strengthen, stiffen and reinforce more complex structures
- understand and use mechanical systems in their products [for example, gears, pulleys, cams, levers and linkages]
- understand and use electrical systems in their products [for example, series circuits

incorporating switches, bulbs, buzzers and motors]

- apply their understanding of computing to program, monitor and control their products.

**Cooking and Nutrition**

- understand and apply the principles of a healthy and varied diet
- prepare and cook a variety of dishes using a range of cooking techniques
- understand seasonality, and know where and how a variety of ingredients are grown, reared, caught and processed.

**Skills to:**

**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

- Pupils understand the working characteristics and properties of the materials they are using and why one material, ingredient or component is better suited to a job than another.
- Pupils develop their work effectively, and demonstrate resilience in solving design problems and technical challenges.
- Pupils understand how to carry out high-quality tests before attempting to improve their products and realise their plans accurately and safely.
- The suitability for users is embedded in all aspects of their designing and making.
- Pupils analyse and use their research effectively to support their designing and to test the effectiveness of their products.
- Pupils apply their knowledge of science and mathematics to inform their designing and making.
- They talk confidently about their technological ideas, and present information and plans effectively by writing, drawing and using annotated sketches.
- Opportunities are secure for pupils throughout the school to design and make products in response to real problems for real clients.
- The curriculum is well resourced, coherently planned and is responsive to pupils' prior learning, including for pupils transferring from primary to secondary schools.
- Curriculum planning ensures that pupils have extensive opportunities to develop their understanding of how products are made in industry and to learn how to make more than one product, component or batch of products.
- Links with other subjects in the school strengthen pupils' achievement in D&T.

**Implementation:**

**Curriculum Organisation:**

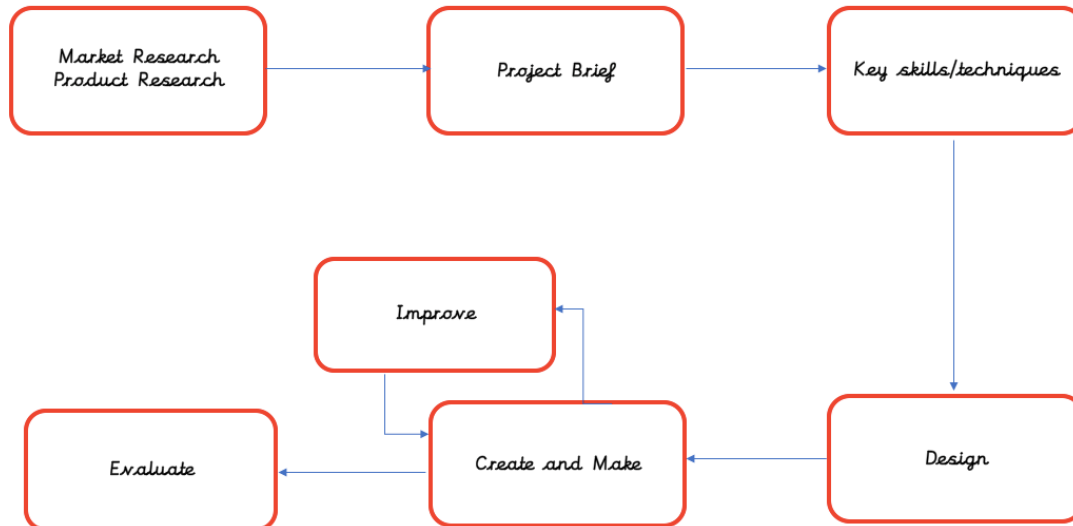
Our curriculum is organised to develop our children's depth of knowledge over time. Children have the opportunity to revisit each DT area ensuring that that acquisition of knowledge and skills is progressive over time. DT will be taught 3 times across the year but the main point of focus highlighted on the map below. Children will have a textiles, food technology and structures unit each year. In KS2 structures includes electrical and mechanical systems. Staff will keep a record of their DT related enquires in their D&T Books.

		Autumn 1	Autumn D&T- 1 week	Spring	Spring D&T- 1 week	Summer	Summer D&T- full term
FS1	Topic		Space		Town and country		Farm to fork
	Focus		Structures/ sculpture		Textiles		Cooking
	Inspiration		Paper Mache		Weaving		Food
FS2	Topic		Planets and moon landing		Outfit for Barbie/Ken		Fruit kebabs
	Focus		Space		Town and country		Farm to fork
	Inspiration		Structures		Textiles		Cooking
Year 1	Topic		Significant Individuals		Immingham and Cleethorpes		Africa
	Focus		Structures- Card/Paper		Food - Ice cream		Textiles
	Inspiration		Tudor Houses and Great Fire of London		Making ice cream		Making a bag
Year 2	Topic		Significant Individuals		Contrasting Locations		North America
	Focus		Structures- polystyrene foam + wood		Textiles- Sewing.		Food
	Inspiration		Boats- sailing		Sail for boat (Au2)		Pancakes
Year 3	Topic		Stone Age		Contrasting Locations		Australia
	Focus		Food - Baking bread		Textiles- Sewing		Structures
	Inspiration		Stone Age inspired Bread.		Making Patchwork quilt		Building a strong bridge
Year 4	Topic		Romans		Italy		Europe
	Focus		Structures with basic mechanism		Food- Cooking		Textiles
	Inspiration		Make Catapults		Making Pizzas		Making a t-shirt
Year 5	Topic		Egyptians		Mexico		South America
	Focus		Textiles- Weaving		Food- Cooking		Structures inc ELECTRICAL
	Inspiration		Wall hanging		Burritos		Carnival Float
Year 6	Topic		Ancient Greece		Around the world		Asia
	Focus		Textiles- Embroidery		Food- Cooking		Structures inc MECHANICAL
	Inspiration		Making Masks		Noodles		Taj Mahal

### **Pedagogy:**

Within a sequence of learning, objectives are always included for building **knowledge of different aspects of DT** as well as developing children's **understanding of particular concepts**.

There is a 7 phase approach:



### **Impact:**

#### **At the Leadership Level**

DT has a clear monitoring cycle that consists of 3 clear foci across three consecutive half terms:

1. **Development Focus Input** - identifying the work that needs to be conducted *e.g. pupil voice, staff voice, enquiry, classroom walk through, enquiry into books, planning alignment, learning environment evidence, data etc.*
2. **Development Activity** - focused improvement work *e.g. CPD, staff coaching/mentoring, purchase of resources etc.*
3. **Development Moderation** - impact of leadership work *e.g. pupil voice, staff voice, enquiry, classroom walk through, enquiry into books, planning alignment, learning environment evidence, data etc.*

DT has an identified Subject Lead and is part of the Creative Team; staff work in teams to identify, lead and monitor the development of the curriculum across the school. This work is cyclic and builds on areas identified for development. Timely feedback is given to staff after any monitoring and the Subject Lead writes an annual causal chain to outline work undertaken and the impact they have had on the teaching and learning of R.E across the school.

#### **At Classroom Level**

The impact of the acquired knowledge and skills is measured during the design, create and make stages where children have the opportunity to share and demonstrate their newly acquired skills by producing their own product.

On an annual basis teachers provide a summative assessment for children within their class. This is analysed by the Subject Lead.

DT Subject Lead: **Kylie Watson**