Curriculum overview for parents and carers

Design and technology

Summary of key Design and technology learning for Reception to Year 6.

Reception

Workshop
Junk modelling Exploring materials through junk modelling, children develop their scissor skills and awareness of different materials and joining techniques. Children begin to make verbal plans and material choices before starting, and problem solve while making their model.
Cooking and nutrition
Soup Learning about vegetables and where they come from while preparing to make a soup. Children describe the taste of a range of vegetables and design a soup recipe as a class. They practise cutting skills and prepare the vegetables for their class soup before testing the final product.
Textiles
Bookmarks Developing fine motor skills through a range of threading activities before moving on to use binka and a needle. Children design a bookmark, considering what to include and why and then follow their designs to complete their bookmarks.

KS1

Year 1		
Making a moving story book Experimenting with sliders, pupils then plan and make three pages of a moving story book - drawing the page backgrounds, creating the moving parts and assembling it.		**Smoothies** Handling and exploring fruits and vegetables and learning how to identify a fruit. Undertaking taste tests to identify ingredients for a smoothie they make, and designing and creating packaging for their smoothie.
Textiles		
Puppets YEAR 2 Exploring different ways of joining fabrics before creating hand puppets based upon characters from a well-known fairytale. Developing technical skills of cutting, glueing, stapling and pinning.		

KS1

Mechanisms
Cooking and nutrition
Balanced diet Exploring and learning what forms a balanced diet, pupils taste test ingredient combinations from different food groups to inform a wrap design of their choice which will include a healthy mix of protein, vegetables and dairy.
Mechanisms

Making a moving monster
Learning the terms: pivot, lever and linkage, pupils then design a monster that will move using a linkage mechanism. Pupils practise making linkages and experiment with various materials to bring their monsters to life.

Digital world

Wearable technology
Designing, coding and promoting a piece of wearable technology to use in low light conditions, developing their understanding of programming to monitor and control products to solve a design scenario.

Design and technology curriculum overview for parents and carers (KS2)

Structure
Constructing a castle Learning about the features of a castle, pupils design and make one of their own. Using configurations of handmade nets and recycled materials to make towers and turrets and constructing a stable base.

Electrical systems	Mechanical systems
Torches Applying their scientific understanding of electrical circuits, pupils design and create a torch made from recycled and reclaimed materials and objects. They then evaluate their products against a set design criteria.	**Making a slingshot car** Using lollipop sticks, wheels, dowels and straws to create a moving car. Pupils build a car chassis and design the body of the car, giving consideration to how the shape will affect the car's air resistance. They then construct and test their cars.

	Cooking and nutrition **Adapting a recipe** Evaluating existing biscuits recipes, children then work in groups to adapt a simple biscuit recipe to create a biscuit suited to a chosen target audience. They ensure that their creation comes within a given budget of overheads and ingredients.

Design and technology curriculum overview for parents and carers (KS2)

Mechanical systems **Making a pop-up book** Creating a four-page pop-up story book design, incorporating a range of functional mechanisms that use levers, sliders, layers and spacers to give the illusion of movement through interaction.	
Cooking and nutrition **Developing a recipe** Researching and modifying a traditional bolognese sauce recipe to improve the nutritional value before then cooking an adapted version and creating packaging that fits a given design criteria. Learning where beef comes from.	**Structures** **Bridges** Learning about different types of bridges and exploring how the strength of structures can be affected by the shapes used within them. Pupils then create their own bridge and test its durability - using woodworking tools and techniques.

Textiles	**Electrical systems**

	Cooking and nutrition **Come dine with me** Researching and preparing a three-course meal and taste-testing and scoring their outcomes. Researching the journey of their main ingredient from 'farm to fork' and writing a favourite recipe.
Structures	**Textiles**

Design and technology curriculum overview for parents and carers (KS2)

Playgrounds Designing and creating a model for a new playground featuring five apparatus, made from three different structures. Using a footprint as the base, practising visualising objects in plan view and including natural features within their designs.		