Distington Community School Design and Technology Statement

Our curriculum is carefully designed to ensure coverage and progression. It provides pupils with memorable experiences, in addition to diverse and rich opportunities from which children can learn and develop a range of transferable skills. The children's own community, its heritage and traditions are frequently used as a starting point for engaging interest. A primary focus of our curriculum is to raise aspirations, create a sense of personal pride in achievement, and provide a purpose and relevance for learning. We provide a creative cross curriculum approach that has clear intent, a carefully designed and monitored implementation and a positive impact that allows children to develop knowledge, understanding and skills in each subject.

At Distington Community School, we follow the Learning Challenge Curriculum alongside the planning tool, KAPOW. Our curriculum is carefully designed to ensure coverage and progression. It provides pupils with memorable experiences, in addition to diverse and rich opportunities from which children can learn and develop a range of transferable skills. The children's own community, its heritage and traditions are frequently used as a starting point for engaging interest. A primary focus of our curriculum is to raise aspirations, create a sense of personal pride in achievement, and provide a purpose and relevance for learning. We provide a creative cross curriculum approach that has clear intent, a carefully designed and monitored implementation and a positive impact that allows children to develop knowledge, understanding and skills in each subject.

Through KAPOW knowledge and skills are taught through the following strands:

- Cooking and Nutrition
- Textiles
- Structures
- Mechanical Systems
- Electrical Systems
- Digital World

Each of these strands are split into lessons which show the sequencing of skills to support the children in their learning and to ensure that each year group flows naturally from one to the next. Each strand ensures coverage of the National Curriculum for key stages 1 and 2, giving them the opportunity to design, make and evaluate their own projects and to discretely embed these skills in to other areas of the curriculum, such as art and science.

In early years, the children also follow the KAPOW scheme of learning, building up early skills that they can transfer in to key stage 1. The early years strands offer units of learning which link to the development matters document, which we use as curriculum guidance here at Distington. Each of the reception strands offer repetition and build up their skills, which they can use within their independent play. For example, each strand teaches the children to plan and make and through pupil voice the children can then evaluate. These are skills they can practise in the junk modelling or construction area of the classroom during their play. The areas of learning that are covered in early years are, physical development, expressive arts

and design, understanding the world and personal, social and emotional development. Lessons are always photographed and added on to Earwig so they can be looked back upon to help teachers assess the children each term.

As a school we also work with Phunky Foods, which is a program of learning which promotes a healthy lifestyle. We use this alongside KAPOW to enhance the children's knowledge and understanding of cooking and nutrition. Ambassadors from Phunky foods visit school to lead practical sessions with the children and carry out informational assemblies about the foods which they eat. Every year group in school, has access to a large, fully equipped kitchen, which is an ideal place to put their cooking skills in to practise.

As a healthy, nut free school this lifestyle is encouraged at all times, offering a breakfast club each morning and educating the parents about the type of foods which their children should be eating. This is then reflected on the packed lunches which are being brought in to school and the snacks in school which are being offered.

Progression of skills across the year groups…

EYFS

By the end of EYFS children will be able to:

- Build upon previous learning by returning to previous activities and refining their ideas and how they might present them.
- Express their feelings and ideas through exploring, using and refining a variety of artistic effects, such as collage, paint, drawing, etc.
- Work with their peers to create, sharing ideas, resources and skills.
- Use a range of small tools confidently and safely, including scissors, paintbrushes and cutlery.
- Display strong core muscle strength, achieving good posture when sitting a table or on the floor.

Year 1

By the end of Year 1 children will be able:

Food:

- To cut ingredients safely and hygienically.
- To assemble or cook ingredients.

Materials:

- To cut materials safely using tools provided.
- To demonstrate a range of cutting and shaping techniques (such as tearing, cutting, folding and curling).

Textiles:

- To shape textiles using templates.
- To colour and decorate textiles

Construction:

- To use materials to practise drilling, screwing, gluing and nailing to make and strengthen products.

Mechanics:

- To create products using levers and wheels.

Year 2

By the end of Year 2 children will be able:

Food:

- To cut, peel or grate ingredients safely and hygienically.
- To measure or weigh using measuring cups or electronic scales.

Materials:

- To measure and mark out to nearest cm.
- To demonstrate a range of joining techniques (such as gluing, hinges or combining materials to strengthen).

Textiles:

- To join textiles using running stitch.
- To colour and decorate textiles using a number of techniques

Construction:

- To use materials to practise drilling, screwing, gluing and nailing to make and strengthen products.

Mechanics:

- To create products using winding mechanisms.

Year 3

By the end of year 3 children will be able:

Food:

- To prepare ingredients hygienically using appropriate utensils.
- To measure accurately.
- To follow a recipe.
- To assemble or cook ingredients

Materials:

- To cut materials accurately and safely by selecting appropriate tools.
- To select appropriate joining techniques.

Textiles:

- To understand the need for a seam allowance.
- To join textiles with appropriate stitching.

Electricals and electronics:

- To create series circuits.

Construction:

- To choose suitable techniques to construct products or to repair items.

Mechanics:

- To use scientific knowledge of the transference of forces to choose appropriate mechanisms for a product (such as levers, winding mechanisms, pulleys and gears).

Year 4

By the end of year 4 children will be able:

Food:

- To prepare ingredients hygienically using appropriate utensils.
- To measure ingredients to the nearest gram.
- To assemble and cook ingredients (controlling the temperature of the oven or hob, if cooking).

Materials:

- To measure and mark out to the nearest mm.
- To apply appropriate cutting and shaping techniques that include cuts within the perimeter of the material (such as slots or cut outs).

Textiles:

- To select the most appropriate techniques to decorate textiles

Electricals and electronics:

- To create parallel circuits.

Construction:

- To strengthen materials using suitable techniques.

Mechanics:

- To use scientific knowledge to choose appropriate mechanisms for a product.

Year 5

By the end of year 5 children will be able:

Food:

- To understand the importance of correct storage and handling of ingredients (knowledge of micro-organisms).
- To demonstrate a range of baking and cooking techniques.

Materials:

- To cut materials with precision and refine the finish with appropriate tools (such as sanding wood after cutting or a more precise scissor cut after roughly cutting out a shape).

Textiles:

- To create objects (such as a cushion) that employ a seam allowance.
- To join textiles with a combination of stitching techniques (e.g. back stitch for seams and running stitch to attach decoration).

Electricals and electronics:

- To create circuits using electronics kits that employ a number of components (such as LEDs, resistors, transistors and chips).

Construction:

- To develop a range of practical skills to create products (e.g cutting, drilling and screwing, nailing, gluing, filling and sanding).

Mechanics:

- To convert rotary motion to linear using cams.

Year 6

By the end of year 6 children will be able:

Food:

- To measure accurately and calculate ratios of ingredients to scale up or down from recipe.
- To create and refine recipes, including ingredients, methods, cooking times and temperatures.

Materials:

- To show an understanding of the qualities of materials to choose appropriate tools to cut and shape (e.g. the nature of fabric may require sharper scissors than would be used to cut paper).

Textiles:

- To use the qualities of materials to create suitable visual and tactile effects in the decoration of textiles (such as a soft decoration for comfort on a cushion).

Electricals and electronics:

- To create circuits using electronics kits that employ a number of components with increasing confidence.

Construction:

- To develop a range of practical skills to create products.

Mechanics:

- To use innovative combinations of electronics (or computing) and mechanics in product designs

Inclusive Learning for SEND in Design and Technology

At DCS, we believe that every child is entitled to receive a high-quality, broad and balanced education regardless of their needs or disabilities. All of our children can expect to receive an education that enables them to achieve the best possible outcomes in design and technology and become confident and able to communicate their own views and understanding in their own preferred styles. Some ways in which we provide for such a curriculum are:

- Simplified, dual coded resources are used for additional support within lessons (e.g. vocabulary mats with pictorial support, writing frames, shortened/differentiated texts)
- Targeted adult support during lesson time,

- Carefully planned retrieval activities to reinforce learning through low stakes activities
- Simplified step-by-step instructions (sometimes with the use of additional resources like talking postcards)
- Carefully planned seating arrangements for tasks that include physical and sensory activities to ensure all children can access learning,
- Opportunity for activities to be repeated, ensuring that skills are embedded and reflected upon, through repetition and reinforcement.
- Different ways of communicating are offered to the children, such as recording devices to express their own opinions
- Appropriate scaffolding and differentiation strategies are utilised accordingly to ensure that all lessons are accessible,
- Curriculum content covered is carefully planned and considered so as not to cause distress for any children in the class.

Every teacher at DCS is a teacher of SEND. Our provision is led by the SENDCo's and is enhanced by the collaboration of teachers, senior leaders, learning support staff, external agencies/professionals, parents and most importantly of all – the child. Therefore, provision may vary from classroom to classroom to ensure the specific needs of all children are met in accordance to their own individuality.