



South Gosforth First School
Design & Technology - Whole School Progression



In line with the National Curriculum, the South Gosforth Design & Technology curriculum aims to ensure that all pupils:

- Develop the creative, technical and practical expertise needed to perform everyday tasks confidently and to participate successfully in an increasingly technological world
- Build and apply a repertoire of knowledge, understanding and skills in order to design and make high-quality prototypes and products for a wide range of users
- Critique, evaluate and test their ideas and products and the work of others
- Understand and apply the principles of nutrition and learn how to cook.

	Design	Make	Technical Knowledge	Evaluate
Nursery	Develop their own ideas. Decide which materials to use.	Use various construction materials. Join different materials using masking tape, Sellotape, glue. Have access to 3D modelling, messy play, collage, cutting during Continuous Provision.	Use one-handed tools and equipment effectively.	Develop their own ideas and describe their model to an adult.
Reception	Discuss what a good design needs. Make verbal plans and material/ingredient choices.	Make simple joins. Join different materials together. Use simple equipment safely.	Join materials using glue, tape, paper fastenings and staples. Chop fruit with support.	Give verbal evaluation of their models with support. Describe their favourite and least favourite parts of designs. Taste different foods and give opinions.
Year 1	Create labelled designs Create a design that matches a design brief	Create moving models that use levers and slides Adapt mechanisms when they don't work Chop fruit and vegetables safely	Know about and use slider mechanisms Understand for a wheel to move it must be attached to a rotating axle Know that an axle moves within an axle holder Know that the frame of a vehicle needs to be balanced. Know that fruit grows on trees and has seeds.	Taste and evaluate different foods, describing smell, appearance and taste. Compare their own product with someone else's. Test a finished product, identifying successes and improvements.
Year 2	Generate and communicate ideas using sketching and modelling.	Create joins and structures from paper/card and tape. Build strong and stiff structure by folding paper.	Know about strong, stable and stiff structures. Know materials can be manipulated to improve strength and stiffness.	Explore the features of structures. Compare and test different structures. Identify strongest and weakest parts of a structure.



	Create a class design brief to follow.	Chop, grate and snip foods. Select and cut fabrics for sewing. Thread a needle and use a running stitch. Neatly pin and cut fabric using a template.	Know what makes a balanced diet and name the 5 main food groups. Know ingredients are the list of items in a recipe. Know sewing is a method of joining fabric. Know different stitches can be used.	Describe the taste, smell and texture of fruit and vegetables. Evaluate food by giving it a score. Evaluate the quality of stitching Identify aspects of peers' work that they like and why.
Year 3	Draw and label a structure including labels for 3D shapes, colours and materials needed. Create designs applying the design brief specified.	Construct a range of 3D shapes using nets. Follow instructions in a recipe Taste and select seasonal ingredients Chop, grate and peel vegetables. Thread a needle and tie a knot with greater independence. Use a cross stitch Embellish designs with appliqué.	Know that vegetables grow in certain seasons Know not all vegetables can be grown in the UK Know that climate affects food growth Know that food that has been brought into the country is imported. Know when 2 pieces of fabric are joined it is called a seam Know that appliqué is decorating a textile by adding smaller pieces of fabric to larger pieces of fabric. Know that wide, flat based objects are more stable. Understand the importance of strength and stiffness in structures.	Evaluate own work and the work of others based on the aesthetic of the finished product and in comparison to the original design. Suggest points for modifications or alterations.
Year 4	Design structures that can support weight and look aesthetically pleasing. Generate ideas using thumbnail sketches and exploded diagrams. Know that different types of drawing are used to explain ideas clearly. Generate several rough ideas before deciding on final design.	Create pneumatic systems and a secure housing for it. Use syringes and balloons to create different systems. Select appropriate materials to match design brief. Make free standing structures of different shapes and sizes. Measure and mark materials using template or ruler. Fit an electrical component.	Understand how pneumatic systems work – by drawing in, compressing and releasing air. Understand what a frame structure is. Understand that an electrical system is a group of parts that work together to transport electricity around a circuit. Know common features of electrical products.	Learn to accept and give constructive criticism. Use the views of others to improve designs. Revisit the requirements of the design brief to review developing ideas. Describe what characteristics of a design and construction made it most effective.