



Community Friendship Perseverance Ambition Respect Trust

St Nicholas provides a welcoming, inclusive and aspirational learning environment at the heart of its community. We nurture, encourage and support all children, adults and their families to be the best as God intended. Following God's example of love and trust, we develop resilience and creativity in all we do.

Learning, loving and encouraging through Christ

Design and Technology Long Term Plan

The units of learning in design and technology are based on the Kapow scheme of work, unless stated. It is a progressive and fully planned scheme, giving children the opportunity to be creative, practical, critical, learn technical skills and knowledge and understand and participate in an increasing technological world. The curriculum is organised around six key areas (Structures, Mechanisms, Textiles, Electrical Systems, Digital World, and Cooking and Nutrition) with structures, mechanisms and textiles revisited and built on throughout the primary curriculum. Whilst electrical systems and the digital world are introduced and taught in key stage two and with food and nutrition being a crucial life skill this is taught each year. The four key strands (Design, Make, Evaluate, and Technical Knowledge) are taught throughout the six areas of design and technology. Design and technology units are taught opposite art, meaning 3 different design and technology units are taught in each year group and an additional food and nutrition unit taught each year. Design and technology can be taught weekly or at times are blocked to be able to teach the units successfully.

Areas: Structures, mechanism, textiles, cooking and nutrition, electrical systems (ks2 only), digital world (ks2 only)

Early Learning Goals	Learning opportunities (Design and Technology area covered)
Communication and language	Listen and follow instructions accurately when using tools and practising techniques. When responding to questioning, explain how their own and others' products work, say who they think they are for and what purposes they fulfil. They develop technical vocabulary and learn how to express their ideas for what they want to design and make- changes in material, sort materials based on properties, making a sandwich.
Personal, social and emotional development	Explore empathy, values and needs of users. Unique opportunities for children to develop their self confidence and self awareness, manage their feelings and make relationships- develop problem-solving skills by talking through how they, you and others resolved a problem or difficulty. Trial and error not failure activities through challenge time- making a boat. Healthy foods, importance of eating plenty of fruits and vegetables.
Physical development	Fine and gross motor experiences, sensory explorations and co-ordination such as using small tools, with feedback and support from adults, allow children to develop proficiency, control and confidence. Twisting, pushing and pulling. - Tools: pencils for drawing and writing, paintbrushes, scissors, knives, forks and spoons. Threading and sewing, woodwork, pouring, stirring, making models with junk materials, construction kits and malleable materials like clay.



Community Friendship Perseverance Ambition Respect Trust

St Nicholas provides a welcoming, inclusive and aspirational learning environment at the heart of its community. We nurture, encourage and support all children, adults and their families to be the best as God intended. Following God's example of love and trust, we develop resilience and creativity in all we do.

Learning, loving and encouraging through Christ

Literacy	Discuss their creations and those made by other people. Discussion throughout the process of creation allows early opportunities for an iterative approach and analytical thinking. DT provides contexts for children to communicate about what they have made and designed- clipboards, chalk on pavement, label creations, captions, non-fiction books on machines, factories, products etc.
Mathematics	Explore and further their understanding of shapes, spatial awareness and measure. Developing a risk-taking approach is also key and should help to embed a growth mindset which is vital for D&T.- Play with blocks and boxes, stacking, comparing sizes of objects, repeating patterns and building sets, shapes in real life, folding paper to make new shapes,
Understanding the world	Think about how a range of everyday and less familiar products are used in places such as schools and homes. Select and use these products for particular purposes and investigate and evaluate them. Talk about features of their indoor and outdoor environment. To support their learning in design and technology, it is essential the built or design and made world is explored.- Discuss how we care for the natural world around us.(under the sea). Observe and interact with natural processes, such as ice melting, a sound causing a vibration, light travelling through transparent material, an object casting a shadow, a magnet attracting an object and a boat floating on water
Expressive arts and design	Creative development, using a wide range of materials, tools and other resources. Draw on the 'arts' when they are designing and making. Discuss different users, the purpose of their product and how it works (function). 'Something for Somebody for Some purpose'. Children should be using a variety of materials and engage in imaginative role-play where they create and use indoor and outdoor environments based on the designed and made world. - Joining materials, adhesive tape and different sorts of glue. Use a range of materials and tools and use with care and precision, construction kits, making a kite, making a book, drawing, model making, mask making.

Year R cover DT in their daily challenge time, where they experiment and explore with products, planning verbally, making and creating. They are also able to share ideas and evaluate their work verbally during review time and through questioning during challenge time adapt their creations.



Community Friendship Perseverance Ambition Respect Trust

St Nicholas provides a welcoming, inclusive and aspirational learning environment at the heart of its community. We nurture, encourage and support all children, adults and their families to be the best as God intended. Following God's example of love and trust, we develop resilience and creativity in all we do.

Learning, loving and encouraging through Christ

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Year 1		Puppets	Moving vehicles (wheels and axles)		Baby bears chair (Yr2 unit) They have mechanisms – moving story books	Fruit and veg smoothie
Year 2	Buildings (QCA unit 1d)	A balanced diet	Ferris wheels		Pouches	
Year 3	Eating seasonally		Cushions		Electronic charm	Castles
Year 4	Pavilions	Torches			Adapting recipes	Making a slingshot car
Year 5		Stuffed Toys	Electronic greeting cards		Pop up books	Cooking and nutrition-developing a recipe.
Year 6		Navigating the world		Playgrounds		Automata toys Come dine with me