Opportunities

Resilience

Wellbeing

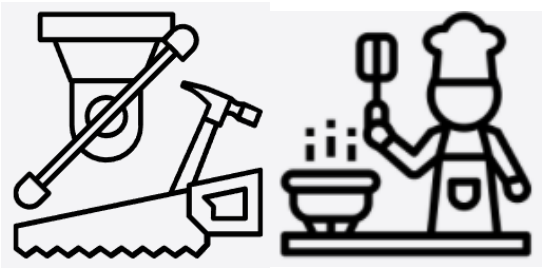
Challenge

kNowledge

Underpinned by our Christian Values

CROWN CURRICULUM

Design and Technology



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"For with God, everything is possible" (Matthew 19:26)

Through our vision, we serve our community by providing an inclusive, happy, secure and caring Christian environment where we believe that everything is possible. In our DT curriculum, we promote security by explicitly teaching safety skills in all units of work. We believe that God loves all his children unconditionally and values the uniqueness of the individual and recognise the diversity and range of contributions that each child can make. We are conscious of sustainability within our DT curriculum and ensure that the materials used are reused or recyclable. We understand that children must be aware of their contributions now and in the future. Our Food and Nutrition curriculum promotes diversity as children appreciate foods from a range of cultures. We recognise that DT is a subject which will equip the children for a range of careers in the future, demonstrating that 'everything is possible'.

Following the Church of England's Vision for Education 'Life in all its fullness' John 10:10, we provide a high-quality education within a creative, stimulating, encouraging and mutually supportive environment where children are enabled to develop the skills they require to become successful in Design and Technology.

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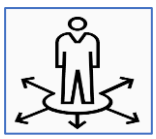
Spirituality at Queen's Park

The spiritual development of our children is a priority across all areas of the curriculum. At Queen's Park CE/URC Primary School, we define spirituality as connecting with ourselves, others, the world and God, through whom, everything is possible (Matthew 19:26).
We explore spirituality through our Spiritual Capacities (our Spiritual C's) which are curiosity, creativity, compassion, captivation, consciousness, being courageous contributors and having opportunities to contemplate.

We understand the importance of both planned and spontaneous opportunities in all aspects of our CROWN Curriculum. This is evidenced in our class reflections book, through 'spirituality in the spotlight' and through speaking to our children.

Our Five Crown Principles





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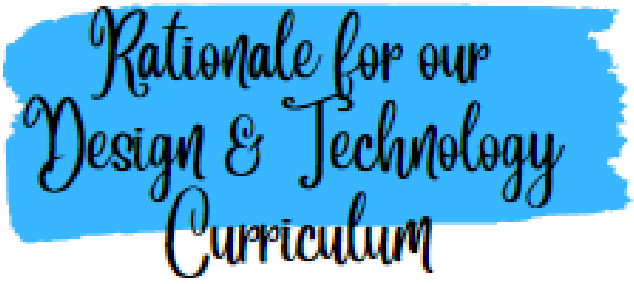
Challenge Resilience Opportunities Wellbeing kNowledge

Our five Crown Principles drive our Design & Technology curriculum.



Challenge

Through the 'challenge' curriculum driver we want our children relish challenges that being a designer can bring: to follow the design, make, evaluate process towards a final outcome/product, to use creativity and imagination, to make products that solve real and relevant problems within a variety of contexts, considering their own and others' needs, wants and values.

Resilience

Through the 'resilience' curriculum driver, we encourage children to take risks, become resourceful, innovative, enterprising and capable citizens within in DT curriculum. Children are encouraged to 'make mistakes' during the design, make, evaluate process and learn from them.

Opportunities

Through 'opportunities', we raise aspirations to broaden our children's horizons – opening their eyes to the myriad careers they might pursue. Through careful planning, visitors attend school to inform children of their careers linked to technology. We provide tangible role models to raise our pupils' aspirations to inspire them to work even harder to be the best that they can be. We give children real life design tasks and scenarios in DT. We want our pupils to have a clear understanding of the link between achieving well and having goals for the future.

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Wellbeing

At Queen's Park, we understand that happiness is linked to personal growth, health and development. We ensure our children are happy, healthy individuals. In DT, we ensure there is a huge emphasis on keeping safe when using tools and equipment. In Food & Nutrition, food handling and hygiene is taught before the children 'make'. Healthy diets and lifestyles are embedded within the curriculum planning. With 'wellbeing' as a curriculum driver, we give children the confidence to thrive in a diverse, global society and be respectful citizens with British and Christian Values at the core.

kNowledge

Through the 'kNowledge' curriculum driver, we encourage our children to be resourceful learners. It is uniquely challenging and coherent to our children. The knowledge imparted in DT is crafted by our curriculum leader and DT subject leader to ensure that all pupils achieve secure subjective and disciplinary knowledge in DT. We ensure there is a scheme of knowledge built within our DT curriculum and there are explicit links with other subjects (STEM) All our teachers teach with the aim to ensure pupils have sufficient knowledge to progress through primary school and beyond.

Being a designer means that disciplinary and substantive knowledge complement each other harmoniously. Design and Technology disciplines such as textiles, building structures etc are all given the same importance within our curriculum.

Through disciplinary literacy, all children read like designer: reading design briefs, recipes, and quality non-fiction texts to support their DT knowledge and understanding.

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Design & Technology Long Term Plan EYFS – KS2

Queen's Park 'Crown Curriculum' – all our planning is based on our key principles and intent for our curriculum Challenge Resilience Opportunities Wellbeing kNowledge				
Year Group	Topics and skills can be taught in any order to enable creative planning of our 'Crown Curriculum'			
D&T Strand	**Structures**	**Mechanisms**	**Textiles**	**Food technology**
EYFS	Shakers and carry boxes or rockets	Sliders and hinges (simple A4 card)	Hole punch/early needle work Handa's surprise	Baking
Year 1	**Lever Head Puppet** (*Progression from EYFS – Design, Make, Evaluate process)		**Rainbow fish / Hungry caterpillar** (Progression from EYFS – running stitch through pre-cut holes.)	**Fruit & Vegetables** Smoothie making *cutting and blending (*Progression from EYFS is design, make and evaluate process) (*Links to PSHE and links to science – plants, categorising fruit and veg)
Year 2	**Cardboard structures** Emergency Vehicles • Make the structure • Using wheels & axles (4wh1/model) (Progression from EYFS and Y1 – Design, make and evaluate) +Use Digital Paint in Design process		**Puppets** (Progression from EYFS – Design, Make, Evaluate) (Recap from Y1 – sew on buttons and complete running stitch)	**A Balanced Diet** Make a Wrap *Bridge and claw grip is taught (*Progression from Y1 – categorise food types and explore sugar – PSHE link) *Progression from Y1 – design 3 possible options before making)

	Structures	**Mechanisms**	**Textiles**	**Food**	**Electronical components**
Year 3	**Cardboard structures** Stilt houses (Linked to English – 'Flood') (Progression from Y2 – Making the structure stable and fit for purpose)	**Hydraulics** Hydraulic Head (*Recap on wheels and axles & levers before teaching Hydraulics)		**Eating Seasonally Saxoury Tarts** (Progression from KS1 – chn learn about importing/exporting and climates food grow, storing and cleaning a knife, kitchen prep and food contamination)	
Year 4	**Structures / Electronical components** Torches (*Links to Science) (Progression – recap on all structures taught before introduction to electronics – purpose / audience) +Using Tinkercad to Design		**Cushion** (recap on buttons and running stitch – teach back stitch)	**'From Farm to Fork'** **Mamma Mia! What a Tasty, Healthy Bolognese** (recap on all prev. learning. Appropriate packaging that reflects a recipe, cooking safely – using hot pans/equipment)	**Structures / Electronical components** Torches (*Links to Science) (Progression – recap on all structures taught before intro to electronics – purpose / audience) +Using Tinkercad to Design
Year 5		**Cams Toys**	**Bag**		**Electronics**

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		Linked to rainforests (recap on all previous mechanisms before introduction to cams)	(recap on all skills buttons, running stitch, back stitch – teach blanket stitch for decorative purposes)		Wobble toys (Progression- recap on all previous learning liked to electrical components)
Year 6	**Fairgrounds** (recap on all structures work previously taught. Children are expected to design, make and evaluate with a detailed brief)			**Come Dine with Me** (consolidating all previous skills and contributing to a class cookbook)	**Fairgrounds** (recap on all electrical components work previously taught. Children are expected to design, make and evaluate with a detailed brief)

DT is taught three times throughout the year (with the exception of Year 6). See Long Term Plan document on website.

Progression in Design & Technology

Progression of knowledge, vocabulary, skills and suggested assessment outcomes

Textiles	Key knowledge progression	Key vocabulary	Key skills progression	Assessment outcome
Progression in disciplinary and substantive knowledge. Progression in designing, making and evaluating.				
EYFS – Weaving (fine motor skills)	I know which materials to use to weave I know to use tools and materials in the craft area I know the names of some tools and equipment	**Vocabulary to be modelled in teaching time and within provision** sew weave decorate join design, make, evaluate	Explore different materials freely to develop their ideas about how to use them and what to make. Weaving materials within the provision – led by adult Draw different materials and explore different textures.	Using fine motor skills to weave (linked to ELG)
Year 1 – Sewing a button	**Key knowledge to be explicitly taught throughout unit of work (and revised constantly through retrieval practice)** I know how to sew on a button I know the equipment I need to sew I know how to move a needle and thread safely	**Vocabulary on Crown Planners (to be explicitly taught)** fabric (noun) mark out (verb) needle (noun) thread (noun) decorate (verb). **Other key vocabulary to be used in this unit of work** Join	**Design** I can choose material and colours to make my fish / caterpillar **Make** I can sew on a button I can glue on decorative pieces **Evaluate** I can say what I like and dislike about my fish / caterpillar	Sewing on a button following the design, make, evaluate process.
Year 2 – Hand puppets	**Key knowledge to be explicitly taught throughout unit of work (and revised constantly through retrieval practice)**	**Vocabulary on Crown Planners (to be explicitly taught)**	**Design**	Creating a hand puppet using a

Together, we believe, achieve and enjoy

Our progression documents have been created by the Curriculum Leader and DT Subject Leader to ensure clear progress in the disciplines of

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Design & Technology we focus on at Queen's Park: Structures and Mechanisms, Food and Nutrition, Electrical Components and Textiles.

The progression documents show key knowledge (substantive knowledge), key vocabulary and key skills (disciplinary knowledge) and assessment outcomes from EYFS – Year 6.

Textiles	Key knowledge progression	Key vocabulary	Key skills progression	Assessment outcome
Progression in disciplinary and substantive knowledge. Progression in designing, making and evaluating.				
EYFS – **Weaving (fine motor skills)**	I know which materials to use to weave I know to use tools and materials in the craft area I know the names of some tools and equipment	**Vocabulary to be modelled in teaching time and within provision** sew weave decorate join design, make, evaluate	Explore different materials freely to develop their ideas about how to use them and what to make. Weaving materials within the provision – led by adult Draw different materials and explore different textures.	Using fine motor skills to weave (linked to ELG)
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Above is a snapshot of the textiles progression document. See progression documents on website for full details.

Vocabulary is V.I.T.A.L in Design & Technology

Valued

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We value vocabulary in Design & Technology and in everything we do.

Identified

Design & Technology vocabulary is identified by the DT subject leader and is explicitly planned for.

Taught

Vocabulary is explicitly taught in every lesson. Our Crown Planners are used as a teaching tool for key DT vocabulary and the DT medium term plans include additional vocabulary to be taught.

Applied

Once vocabulary is taught, it is applied. Children apply their vocabulary in their assessment outcomes in DT.

Learned

Vocabulary is revisited and relearned. Vocabulary sticks in the children's long-term memory. Lesson by lesson, year by year, children revisit and relearn key DT vocabulary.

Through an **'explosion of experiences'**, our youngest designers are exposed to the foundations of their DT learning. Carefully planned DT knowledge, skills and experiences are provided for our children. High quality

books, stories and rhymes are the beating heart of our DT curriculum in EYFS. DT vocabulary is planned for. Staff are role models in demonstrating DT vocabulary and this is further enhanced in our excellent provision. The foundations of DT learning in EYFS is linked to Year 1 and beyond.

Year 1 to Year 6

Year on year, children will build upon their DT knowledge, skills and vocabulary. The curriculum leader and DT subject leader have created a meaningful, sequential learning journey through all strands of DT. Careful curriculum thinking and planning ensures that our children have the subject knowledge and components embedded in their long-term memories.

Pedagogy

Both our staff and children are enthusiastic about DT. Through ongoing CPD, we strive to ensure our teachers have expert knowledge of the Design & Technology they teach. Our pedagogy is firmly based upon our curriculum intent of embedding concepts into long-term memory so that they are able to be recalled, to ensure substantive and disciplinary knowledge and skills can be applied fluently.

Our 'Queen's Park Quality First Teaching' model ensures that lessons are effectively sequenced so that new knowledge and skills build on what has been taught before and towards defined end points.

We firmly believe that all children should have full access, including those with additional needs, to our DT curriculum therefore lessons are scaffolded where appropriate in order to meet the needs of all our children

The sequence of lessons across Design & Technology follows the same structure:

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Phase 1 - Revise

- Pre- assessment task
- Prior learning revisited from previous years
- Key question introduced
- Crown Planner shared

Phase 2 - New learning

- Medium term planning to inform lessons following: Design, Make and Evaluate
- Vocabulary explicitly taught
- Reference to Crown Planners throughout
- Queen's Park Quality First Teaching

Phase 3 - Review

- Post-assessment task. Final 'make'.
- Children know more and remember more
- Can evaluate their skill effectively

Each lesson, within the sequence, follows the structure so prior knowledge is constantly revisited and transferred to long term memory.

Phase 1 - Revise

- Vocabulary (some will be tier 3 - subject specific words)
- Crown Planner shared
- Previous 'step' in the sequence revisited

Phase 2 - New learning

- Queen's Park Quality First Teaching
- New knowledge taught
- New skills taught - demonstrated by teacher
- Crown Planners to be used as a point of reference

Phase 3 - Review

- Review of skills demonstrated
- Formative assessment

Crown Planners

Our Crown Planners support our children with vocabulary and key knowledge for each unit of work. They enhance children's understanding

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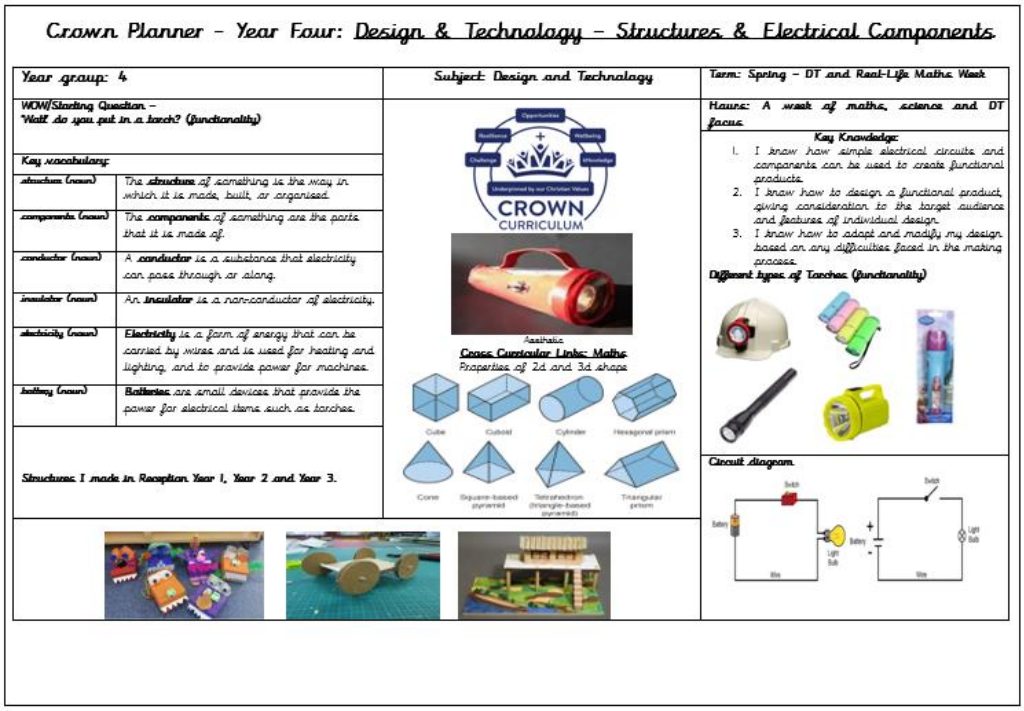
of key concepts, present information clearly and promote appropriate discussion.



Crown Planner – Year Four: Design & Technology – Structures & Electrical Components

Year group: 4	Subject: Design and Technology	Term: Spring – DT and Real-Life Maths Week
WOW/Starting Question – "Wait! do you put in a torch? (functionality)		Hours: A week of maths, science and DT focus
Key vocabulary:		Key Knowledge: 1. I know how simple electrical circuits and components can be used to create functional products. 2. I know how to design a functional product, giving consideration to the target audience and features of individual design. 3. I know how to adapt and modify my design based on any difficulties faced in the making process.
structure (noun) – The structure of something is the way in which it is made, built, or organised.		
components (noun) – The components of something are the parts that it is made of.		
conductor (noun) – A conductor is a substance that electricity can pass through or along.		
insulator (noun) – An insulator is a non-conductor of electricity.		
electricity (noun) – Electricity is a form of energy that can be carried by wires and is used for heating and lighting, and to provide power for machines.		
battery (noun) – Batteries are small devices that provide the power for electrical items such as torches.		
Structures I made in Reception Year 1, Year 2 and Year 3.		

Realistic

Cross Curricular Links: Maths
Properties of 2d and 3d shape

Circuit diagram

We understand that we may not see the true impact of our DT curriculum on our children as our DT curriculum is just the beginning of a lifetime of learning.

Our well-constructed and well-taught DT curriculum leads to great outcomes. Our results are a reflection of what our children have learnt. At Queen's Park, our philosophy is that broad and balanced leads to great outcomes and meeting end points at the end of each key stage. National assessments are useful indicators of the outcomes our children achieve.

We ensure all groups of children are given the knowledge and cultural capital they need to succeed in life. We strive to ensure that our children are equipped with the skills (through a growth mindset approach) to fluently be able to retrieve key facts from their semantic memory.

The quality of our children's work, at every stage, is of a high standard. All learning is built towards an end point and at each stage of their education, we prepare our children for the next stage.

We ensure all our children read to a stage appropriate level and fluency. Through disciplinary literacy in DT lessons.

The impact of Queen's Park DT curriculum is measured through the following:

- Assessment at the end of each unit of work
- Vocabulary and knowledge are assessed at the end of each lesson and at the end of each sequence
- Pupil voice
- Progress evident in children's books and record of experiences
- Seeking views of parents where appropriate