

# D&T – One Voice

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# D&T Vision

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**Design and Technology at CCJS develops children's skills and knowledge in design, structures, mechanisms, electrical control and a range of materials, including food. It encourages children's creativity and encourages them to think about important issues.**

**Design and Technology gives children the opportunity to develop skills, knowledge and understanding of designing and making functional products. We feel it is vital to nurture creativity and innovation through design, and by exploring the designed and made world in which we all live and work.**

# The Key Concepts of Design Technology

User	Pupils should have a clear idea of who they are designing and making products for, considering their needs, wants, values, interests and preferences. The intended users could be themselves or others, an imaginary/story-based character, a client, a consumer or a specific target group.
Purpose	Pupils should be able to clearly communicate the purpose of the products they are designing and making. Each product they create should be designed to perform one or more defined tasks. Pupils' products should be evaluated through use.
Functionality	Pupils should design and make products that work/function effectively to fulfil users' needs, wants and purposes.

# The Key Concepts of Design Technology

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Design	<p>Pupils need opportunities to make their own design decisions. Making design decisions allows pupils to demonstrate their creative, technical and practical expertise, and draw on learning from other subjects. Through making design decisions pupils decide on the form their product will take, how their product will work, what task or tasks it will perform and who the product will be for.</p>
Innovation	<p>When designing and making, pupils need support to be original with their thinking. Projects that encourage innovation, lead to a range of design ideas and products being developed and are characterised by engaging open-ended starting points for learning.</p>

# D&T Projects on a Page

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## Projects on a page (POAP)

At CCJS we use the DT Association 'Projects on a page as a basis for our long term overviews, adapting them to our curriculum. There is a yearly overview for each work group.

**The 'Projects on a Page' reflects the purpose of study in the national curriculum. The 3 main types of activities are:**

1. Investigative and Evaluative Activities (IEAs) where children learn from a range of existing products and find out about D&T in the wider world
2. Focused Tasks (FTs) where they are taught specific technical knowledge, designing skills and making skills
3. Design, Make and Evaluate Assignment (DMEA) where children create functional products with users and purposes in mind.

# Model and Monitoring

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- For each unit, the product, user and purpose for the unit is clearly visible and central to D&T teaching and learning (stage 9 of POAP): Design, make and evaluate a \_\_\_\_\_ (product) for \_\_\_\_\_ (user) for \_\_\_\_\_ (purpose).
- The process for recording the process is considered as well as the end product... depending on the unit this could be a booklet, part of the theme book or in an evidence portfolio. Evidence demonstrates individual children's examples of immersive tasks, the planner, the production stage and evaluation

# How is learning across school sequenced?

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## Lower Key Stage 2

Y3	<b>Textiles</b> 2-D shape to 3-D product	<b>Structures</b> Shell structures (including computer-aided design)	<b>Mechanical Systems</b> Pneumatics
Y4	<b>Food</b> Healthy and varied diet (including cooking and nutrition requirements for KS2)	<b>Electrical Systems</b> Simple circuits and switches (including programming and control)	<b>Textiles</b> 2-D shape to 3-D product

# How is learning across school sequenced?

## Upper Key Stage 2

Y5	<b>Structures</b> Frame structures	<b>Food</b> Celebrating culture and seasonality (including cooking and nutrition requirements for KS2)	<b>Electrical Systems</b> More complex switches and circuits (including programming, monitoring and control)
Y6	<b>Textiles</b> Combining different fabric shapes (including computer-aided design)	<b>Mechanical Systems</b> Pulleys or gears	<b>Food</b> Celebrating culture and seasonality (including cooking and nutrition requirements for KS2)



# Measuring Progress: Knowledge, Skills & Challenge

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- **Knowledge organisers and D&T booklets** are being developed to ensure equity across class', promote the pure D&T ethos of design, make and evaluate a..... They also support staff in assessing D&T skills and offer opportunities for learners to refer back to prior learning and aid in remembering more.
- **Projects on a Page** builds on children's prior knowledge and skills.
- **Data to measure progress in Wider Curriculum subjects.**
- **Assessment tool - Progression of knowledge and skills:** enables school staff to report accurately and effectively every child's progress in D&T, by the end of the year/unit. This will be added into SIMS as E, M or X.

# Challenge, Adaptations and Memory:

## Challenge:

- Iterative opportunities (whilst ensuring clarity of design, make and evaluate process' are paramount).

## SEND & EAL: Adaptive Teaching

- Practical 'pure D&T' focus enables learning to be adapted to ensure no barriers for children.

## Knowledge and Skills

- To ensure knowledge and skills are embedded in children's long term memory teachers provide regular check ins by recapping previous learning before introducing new learning using the D&T display.

# D&T – the D&T learning process

**For each unit, the product, user and purpose for the unit is clearly visible and central to D&T teaching and learning (stage 9 of POAP): Design, make and evaluate a \_\_\_\_\_ (product) for \_\_\_\_\_ (user) for \_\_\_\_\_ (purpose).**

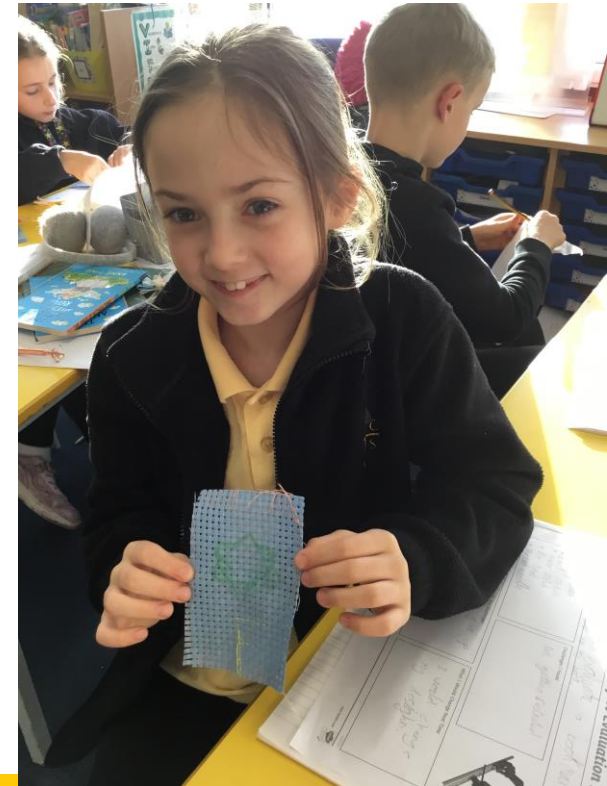
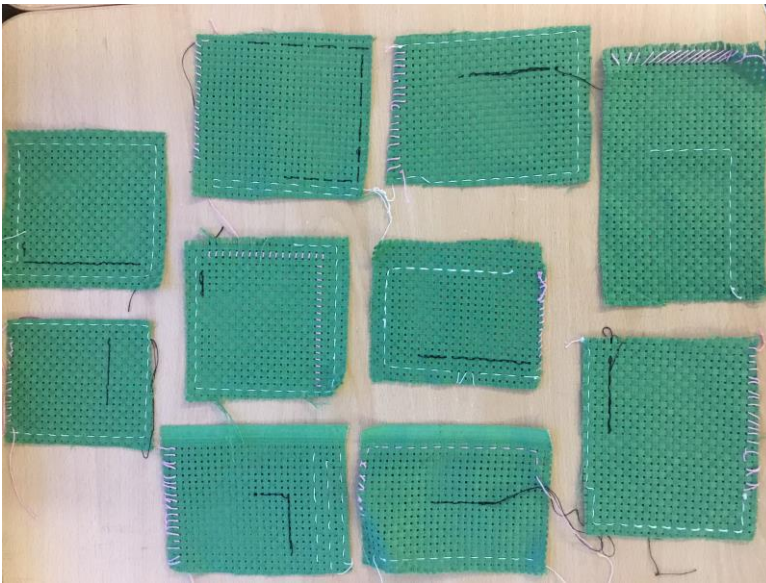
- D&T booklet- presentation and design, make and evaluate model consistent across school.
- D&T class display working wall including key vocabulary for the unit.

# Pupil voice Y3: “I really enjoyed learning how to sew in Y3. First we learnt and practiced different stitches”

“We had to design, make and evaluate a bookmark”.

“We evaluate it at the end to see what we could improve”.

“Yes, I like researching and designing and making things”.



# Pupil voice Y4: “We had to design, make and evaluate a purse or wallet”.

“We researched and chose different fabrics”

“We learnt different ways to make a seam”



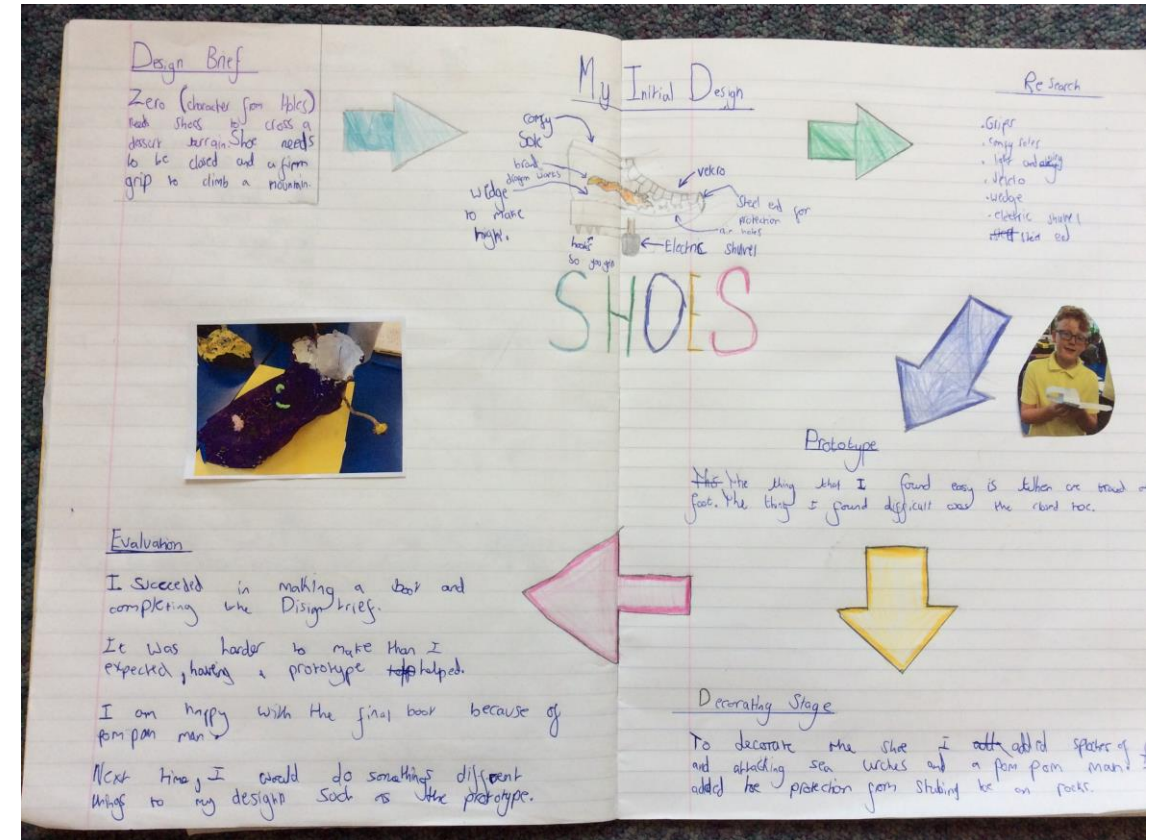
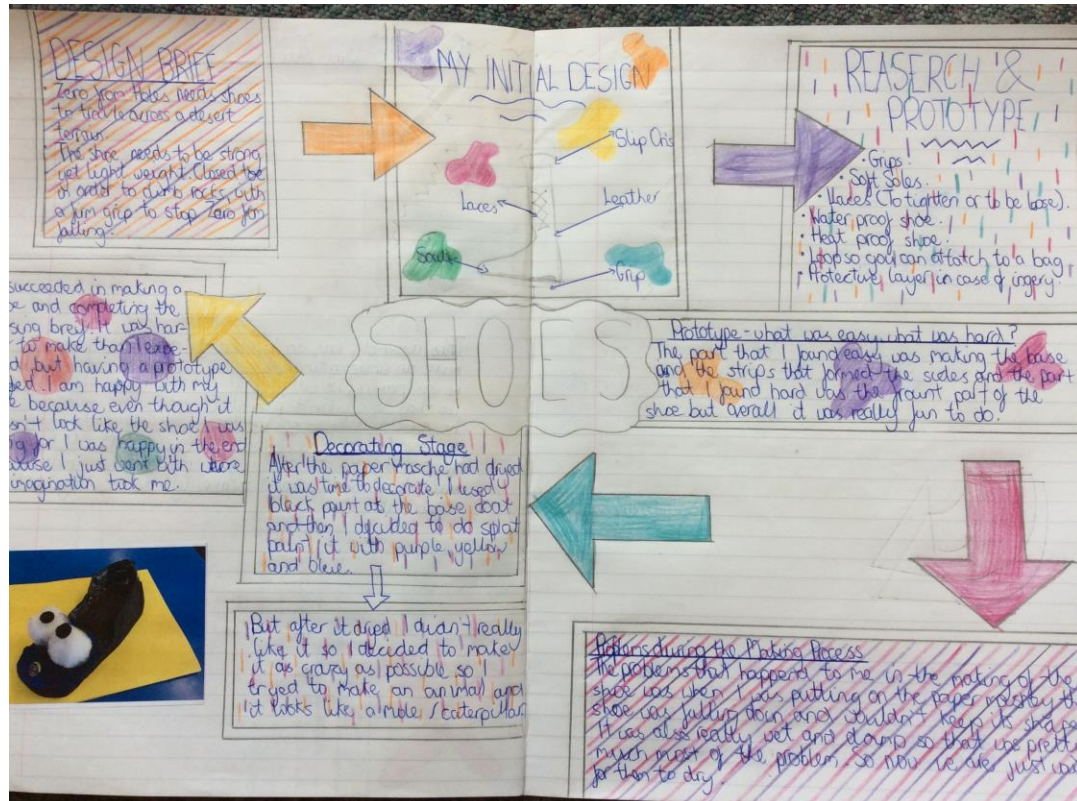


# Pupil voice: Y5

“D&T is about understanding the process of how to make stuff”.

“We first looked at our design brief, researched what the product is usually made of and then made a prototype”.

“I enjoyed making the shoes but it was harder than I thought it would be”



# **Strengths**

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- Projects on a Page: Clear coverage and progression across each unit and year.
- Engaging lessons driven by a quality scheme of work and high-quality teaching and learning.
- Teachers passion for the subject
- Emphasis on iterative processes

## **Next steps:**

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- 2023 Monitoring: Pupil voice, lessons and book flicks.
- Knowledge organisers, Assessment and D&T booklets: monitor and support in developing.
- D&T classroom displays: WAGOLL and Vocabulary displays.