



God's Love in Action

Our children are at the heart of everything we do through **Christian values and relationships**. **Living and learning together** we celebrate the uniqueness and diversity of everyone in our family. We nurture a sense of **self belief, mutual respect and belonging** through Social Emotional Learning and academic excellence. We are dedicated to building the foundations for **happy and successful life-long learning**.

D&T

Implementation

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1. Curriculum and Progression

In D&T, we have carefully considered the scheme of work which we use to best suit the diverse cultures of our school community. We follow a broad and balanced D&T curriculum that builds on previous learning and adaptations provide both support and challenge for learners. This ensures progression of skills and covers all aspects of the Design and Technology curriculum outlined by the National Curriculum. Our D&T Curriculum is taken from the Kapow schemes of work. Combining a wide range of topics with a diverse variety of learning activities, we felt the Kapow schemes provided an excellent balance of resources and flexibility in the classroom. Teachers are trained to use the schemes as a foundation for delivering quality D&T lessons. However, the expectation is that these are then adapted and suited to the needs of their individual pupils. Lessons are resourced by teachers who have access to a wealth of online and physical resources.

Each D&T unit follows the design process which includes:

Research: During the initial research stage, children are encouraged to investigate existing products as well as begin to build their knowledge on the topic through research and exploration.

Design: In the design stages, our children design products that have a clear purpose or intended user as well as adapting and refining their design as their working knowledge and understanding progresses.

Make: During the making process, teachers model technical skills and highlight good practice and safety skills. We want children to make mistakes throughout the designing and making process and to not all make the same end product.

Evaluate: Finally, in the evaluation stage children will be considering what worked effectively and how they can improve the impact of the overall appearance and usability of their product. The emphasis will be on the processes they went through to make the product as this is more important than the end product itself.

Each area of Design and Technology is revisited through the school to build on previous knowledge and skills. For example, for mechanisms and mechanical systems, the progression of skills begins with Year 1 making moving story books with simple levers and sliders for movement. In Year 2, fairground wheels are created using wheels and axles. In KS2, the children are able to design and create a sling shot car, a pop up book and finally automata animals using cams, axles and followers.

2. Lesson Structure

D&T lessons begin with a **Do Now** activity. These short burst recaps help children to recall prior learning and make connections with the required substantive knowledge for that lesson. The **Learning Objective** and **New Vocabulary** are also shared with the children.

Next, the adult will use high quality instruction and modelling to teach the lesson's new learning. Walkthrus teaching strategies, such as **Live Modelling**, **Modelling Handover (I do, We do, You do)** or **Worked Examples and Backwards Fading** allow pupils opportunity to tackle misconceptions and practice the skills necessary to achieve the learning objective. At a key moment in the lesson, teachers will use a **Check for Understanding** to quickly decide whether pupils are ready to move on. This could be a **Hinge Question**, **Show Me Boards**, **Cold Calling** or other related Walkthrus strategies.

Finally, children are given a chance to apply their learning in an **Independent** or **Group Activity**. The teacher will use this to assess whether the pupils can apply ???

Within a lesson, the pupils will be given the opportunity to practically apply their knowledge of skills through an activity that focuses on one area of the design process.

When appropriate, the teacher will finish the lesson by recapping the learning and addressing any misconceptions that have arisen. This could be in the form of **Whole Class Feedback**, **Feedback that Moves Forward**, or **Feedback as Actions**.

3. Practice and Retrieval

The use of Medium-Term Plans support teachers in sequencing learning. Every lesson starts with a Do Now to activate prior learning and help the children remember things that they have learnt before. We also complete frequent low stake curriculum quizzes which effectively review learning and helps to ascertain whether pupils are confident and accurate in what they have learnt and ultimately that they have retained the knowledge. The aim is to ensure that lessons will develop long-term memory by allowing for repetition of learning within the year and across the years.

Label the diagrams for a battery.

lamp	battery	switch

Which of these show 'the claw' cutting method?

A B C

Examples of Do Now retrieval tasks to start the lesson.

Why do we use a template when cutting out our puppets?



You can make two puppets.



Both pieces of material will be the same.



We can give them away.

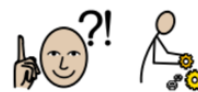
Why do you think Ferris wheels are round?



Tradition



Stability



Easy assembly

4. Assessment

Assessment is an integral part of teaching, as it determines whether the goals of education are being met. However, we recognise that assessment goes far beyond tracking spreadsheets and termly knowledge tests. At its core, assessment should lead children to learn more effectively.

Assessments serve the students by letting them know what errors they made and how they could correct those errors. It also helps students to reinforce the content better in the event they don't remember it very well. Assessments also helps teachers better understand what worked and what didn't in their classes. For example, if the average score in a mini-quiz was lower than expected after the test, then the teacher knows that something didn't click with the students. In such a scenario, it helps the teacher change the way the content was earlier taught and use other ways to teach the same content moving forward.

Assessment at St John's and St Peter's CE Academy is guided by two key pieces of research: McCourt's (2019) '**Mastery Model of Education,**' and Fletcher-Wood's (2018) model of '**Responsive Teaching.**'

Mastery model of education

Diagnostic pre assessment with pre teaching	All children need the foundations for the upcoming new learning.
High quality, group based initial instruction	Multiple ways of communicating and teaching each and every concept. Lots of practice.
Progress monitoring through regular formative assessments	Timely action when children have not understood
High quality corrective instruction	Intense, individualised assistance offered early. Most children will need this at some point.
Second, parallel formative assessments	If the child still has not gripped the idea, then the cycle repeats. All will grasp concepts eventually
Enrichment or extension activities	Take an idea into much greater depth and well beyond the expectations of the statutory school curriculum.

McCourt (2019)

Fletcher-Wood (2018) outlines a model of '**Responsive Teaching**' with three clear principles:

1. **Setting clear goals and planning learning carefully.**
2. **Identifying what children have understood and mis-understood.**
3. **Responding and adapting teaching to support children to improve.**

Our assessment process is designed to align with these three principles and give teachers the opportunity to respond and adapt teaching to support children to improve.

Before the Unit begins

High Quality Planning

Long-term and Medium-term planning provided by the Subject Lead ensures that lessons are designed to build on prior learning.

During each lesson

Do Now

Each lesson begins with a low-stakes, low threat recap that help children to recall prior learning and make connections with the required substantive knowledge for that lesson.

Feedback

Teachers finish the lesson with a recap of learning and addressing misconceptions that have arisen. This could be Whole Class Feedback, Feedback that Moves Forward, or Feedback as Actions.

Check for Understanding

After the learning input, adults will use key strategies such as Hinge Questions, Show Me Boards or Cold Calling to check for understanding. This allows teachers to assess whether the majority of pupils are ready to move to the Independent Activity.

During or at the end of the Unit

Unit Check-Ins

Low stakes, low threat check-ins designed to assess the progress of the pupils mid-way through the unit. This could be in the form of questioning, quizzing, or other formative assessment methods.

Quizzing

A simple routine knowledge quiz that checks students have learned the material that you want them to know. These could take place during a unit, or at the end. Quizzing provides information to student and teacher about where gaps exist.

Double-Page Spreads

An open response task for pupils to showcase what they have learned. The precise form of this response is not critical, but it may include pictures and labels, key vocabulary, descriptions, or verbal presentations.

“End Product” Evaluations

This could be a performance in music or a purposeful “product” in D&T. Students and teachers can reflect on the process of creating these end products and evaluate whether they have been successful.

Teachers have autonomy to choose the most appropriate form of assessment to use during, or at the end of the unit. Although some assessment strategies lend themselves to different subjects, there is no requirement to perform a specific one at a specific time.

5. Supporting pupils with SEND

At St John's and St Peter's CE Academy, we aim for all D&T lessons to be accessible for all pupils. We recognise that high-quality teaching is what is best for all pupils, including those with SEND or other additional needs. Our consistent approach to teaching is underpinned by Walkthrus instructional coaching, equipping teachers with a toolkit of research-based strategies that have been proven to work in the classroom.

Where pupils may have additional needs that could prevent them from engaging with the content of a lesson, the class team will make adaptations to ensure that each child can access the learning. Some pupils may require extra time or support in the classroom, while others may require pre-teaching of specific vocabulary or concepts. Teachers are encouraged to use word banks and sentence stems to aid with writing, and may also use additional programmes such as InPrint to dual-code resources for the children. Knowledge organisers are also used to aid understanding and recall.

The practical nature of D&T means that pupils can learn in a hands on, exploratory way. This enables pupils to express their creativity through the design and make process and ensures that it is accessible to all.

As part of termly Pupil Progress meetings, the Lead Practitioner and SENDCo meet with the class teacher to identify any barriers to learning that may be hindering progress, liaising with the Pastoral Care Manager to build up a holistic view of all pupils. Staff are confident to raise any concerns they have about specific pupils, and regularly seek guidance for additional strategies or advice.

6. D&T in EYFS

In the Early Years, D&T opportunities are provided throughout expressive arts and design activities during various topic-related adult-focused activities and daily child-initiated learning experiences. Designing in the EYFS does not necessarily entail drawing, but children may retrospectively draw what they have made. Designing includes physically arranging and re-arranging materials and components and orally communicating what they are doing and have done. Designing is typically intuitive i.e. children design as they make. Therefore, we provide a wide range of resources and equipment for children to be able to construct and create with. Children experience using simple tools to enable them to make changes to materials and are taught how to use them safely. We encourage children to develop technical vocabulary and learn how to express their ideas for what they want to design and make.

The areas of the EYFS curriculum which link directly to D&T are:

1. Expressive arts and design
2. Physical Development
3. Understanding the World
4. Personal, Social and Emotional Development

Examples of D&T learning in Nursery and Reception include:

- Using building bricks and card to build bridges to find out which one is the strongest for the Three Billy Goats Gruff.
- Constructing houses that the three little pigs could live in and discussing which house would be the strongest.
- Creating structures and buildings in the Small World roleplay real world.

	Reception
Autumn 1	Cooking and nutrition: soup
Autumn 2	Mechanisms: Sliding Santa Chimneys
Spring 1	Structures Junk modelling/ Making a bridge/House (Fairy tales)
Spring 2	Textiles: Hanging egg decoration + Threading flowers
Summer 1	Structures: Boats
Summer 2	Cooking and Nutrition: Designing and Making a rainbow salad

7. Supporting classroom teachers

Medium and long-term planning is provided by the D&T lead, who has meticulously selected units of work for each year group. As we follow the Kapow primary scheme of work for D&T, teachers are provided with step-by-step lesson by lesson planning and content such as on screen slides and resources to print and use. The D&T lead is on hand to support all adults with the preparation and teaching of D&T. Through the high-quality resources selected and purchased, we are able to give our pupils a hands on experience which enables them to fully immerse themselves into the design process from beginning to end.

8. Additional Information