



What is Power Maths and how do we use it in SMMJ?

Power Maths

Maths in St Margaret Mary's Catholic Junior School:

In St Margaret Mary's Catholic Junior School, a 'mastery' approach to maths has been adapted and implemented to meet the individual needs of our children. For this we use the **Power Maths Scheme of Work** to ensure that our maths is broken down into small, progressive steps that are built upon daily. We feel it is essential that our children experience maths in a variety of situations and that they understand concepts using the concrete, pictorial and abstract model.

What is Power Maths?

Power Maths is a resource that has been designed for UK schools based on research and extensive experience of teaching and learning around the world and here in the UK. It has been designed to support and challenge all pupils, and is built on the belief that **EVERYONE** can learn maths successfully.



What is Power Maths and how do we use it in SMMJ?

How does this support our approach to teaching?

The philosophy behind Power Maths is that being successful in maths is not just about rote-learning procedures and methods, but is instead about problem solving, thinking and discussing.

Many people feel they were taught maths in a way that was about memorising formulas and calculation methods, then having to apply them without any real understanding of what or how these methods actually work.

Power Maths includes practice questions to help children **develop fluent** recall and **develop their conceptual understanding**. Power Maths uses 'Learning Power' characters to prompt, encourage and question children. They spark curiosity, **engage reasoning, secure understanding** and **deepen learning** for all.



What is Power Maths and how do we use it in SMMJ?

Meet the Power Maths Characters and find out about their Learning Powers:



Ash



Flo



Astrid



Dexter



Sparks

Ash: is eager, interested and creative. He likes to **imagine** real life situations when solving problems and **revise** different areas of Maths so they are fresh in his mind.

Flo: During Maths lessons Flo likes to **persevere** and look for many different ways to solve problems. When **planning** her work, she likes to think carefully to ensure that she uses the most effective strategy to solve the problem.

Astrid: Astrid's favourite lesson is Maths. She is brave and likes to **listen** carefully to other people's opinions. When she is given a



What is Power Maths and how do we use it in SMMJ?
challenge she becomes **absorbed** in it
and **perseveres** until she succeeds.

Dexter: Dexter loves numbers. She likes to
use **questioning** to deepen her
understanding. She likes to **collaborate** with
her peers as she doesn't always choose the
most efficient method.

How will the lessons work?

Each lesson has a progression, with a
central flow that draws the main learning into
focus. There are different elements, informed
by research into best practice in maths
teaching, that bring the lessons to life:

- **Discover** – each lesson begins with a
problem to solve, often a real-life example,
sometimes a puzzle or a game. These are
engaging and fun, and designed to get all
children thinking.
- **Share** – the class shares their ideas and
compares different ways to solve the
problem, explaining their reasoning with
hands-on resources and drawings to make
their ideas clear. Children are able to



What is Power Maths and how do we use it in SMMJ?
develop their understanding of the concept
with input from the teacher.

- **Think together** – the next part of the lesson is a journey through the concept, digging deeper and deeper so that each child builds on secure foundations while being challenged to apply their understanding in different ways and with increasing independence.
- **Practice** – now children practice individually or in small groups, rehearsing and developing their skills to build fluency, understanding of the concept and confidence.
- **Reflect** – finally, children are prompted to reflect on and record their learning from each session and show how they have grasped the concept explored in the lesson.



What is Power Maths and how do we use it in SMMJ?

What if my child needs a confidence boost, or wants to be challenged further?

Power Maths is based on a 'small-steps' approach, sometimes called a mastery approach. This means that the concepts are broken down so that your child can master one idea without feeling over-whelmed.

There are a range of fluency, reasoning and problem solving questions in each lesson that are designed to support the different needs and confidence levels within a class, while at the same time fostering a spirit of working and learning together.

Each lesson includes a challenge question for those children who can delve deeper into a concept.