

# Ashby Fields Primary School - Mathematics Curriculum

## Intent:

At Ashby Fields Primary School we want our children to be ready to take on the world of maths by the time they leave. Through our Power Maths programme, we plan for our pupils to be confident mathematicians who have achieved fluency in all aspects of the curriculum. We equip our children with a deep and long-lasting understanding; we want our pupils to master maths rather than having only surface knowledge and skills in this subject.

Power Maths is a progressive, whole-class, textbook-based mastery resource that empowers every child to understand and succeed. It is not just about rote-learning procedures and methods but is instead about developing conditional knowledge of problem solving, thinking and discussing. It develops growth mindsets and encourages hard work, practice, and a willingness to see mistakes as learning tools. It aims to spark curiosity and encourage rich mathematical talk through engagement in a variety of activities.

At Ashby Fields we use the following definition of mastery:

**A mathematical concept or skill has been mastered when, through exploration, clarification, practise, and application over time, a student can represent it in multiple ways. Mastery means that pupils can think mathematically with the concept so that they can independently apply it to a totally new problem in an unfamiliar situation.**

Through our Power Maths programme children will:

- Build every concept in small, progressive steps
- Use a Concrete-Pictorial-Abstract approach to learn and build concepts
- Receive same-day intervention to ensure sustained progress
- Use an interactive whole-class teaching model
- Follow the Power Maths lesson structure of Discover, Share, Think Together sections
- Be able to practise their conceptual understanding in class groups, small groups pairs and independently

Additional maths sessions are timetabled into the school day to allow children the opportunity to obtain the automaticity in both declarative knowledge, number bonds and multiplication facts, and procedural knowledge, including efficient calculation methods for all four operations.

Our teachers use a range of assessment for learning strategies to find out where pupils truly are on their maths journey and then ensure that every learner is both supported and challenged in the classroom. At the core of our curriculum is the CONCRETE, PICTORIAL AND ABSTRACT approach to maths.

**Concrete** – children have the opportunity to use concrete objects to help them understand and explain what they are doing.

**Pictorial** – children then build on this concrete approach by using pictorial representations, which can then be used to reason and solve problems.

**Abstract** – With the foundations firmly laid, children can move to an abstract approach using numbers and key concepts with confidence.

As our pupils progress, our intention is for them to be able to understand the world, have the ability to reason mathematically, have an appreciation of the beauty and power of mathematics, and a sense of enjoyment and curiosity about the subject.

Our philosophy is to enable each child to enjoy Mathematics and to appreciate its value in everyday life. We aim to foster a learning environment in which all pupils are curious about their learning and have the opportunity to explore, share and work collaboratively as well as independently to achieve in Mathematics. We believe that competence with calculations is essential, but that Mathematics is so much more!

## Implementation:

At Ashby Fields Primary School, the teaching and learning of mathematics is taught through the following timetabled sessions:

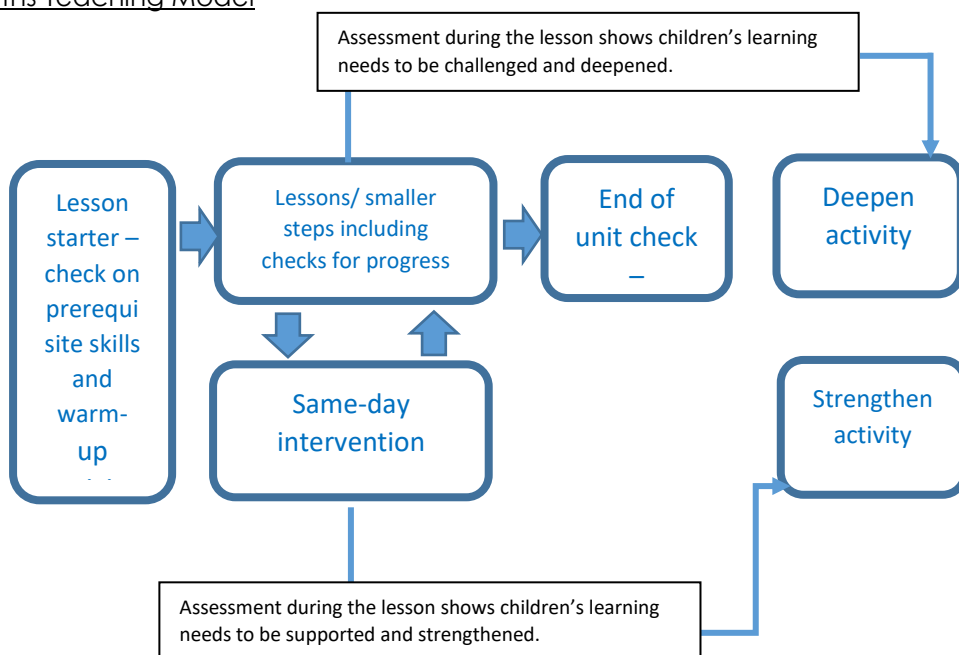
- 1) Magic Maths
- 2) Arithmetic (Years 1 – 6 only)
- 3) Power Maths Lessons

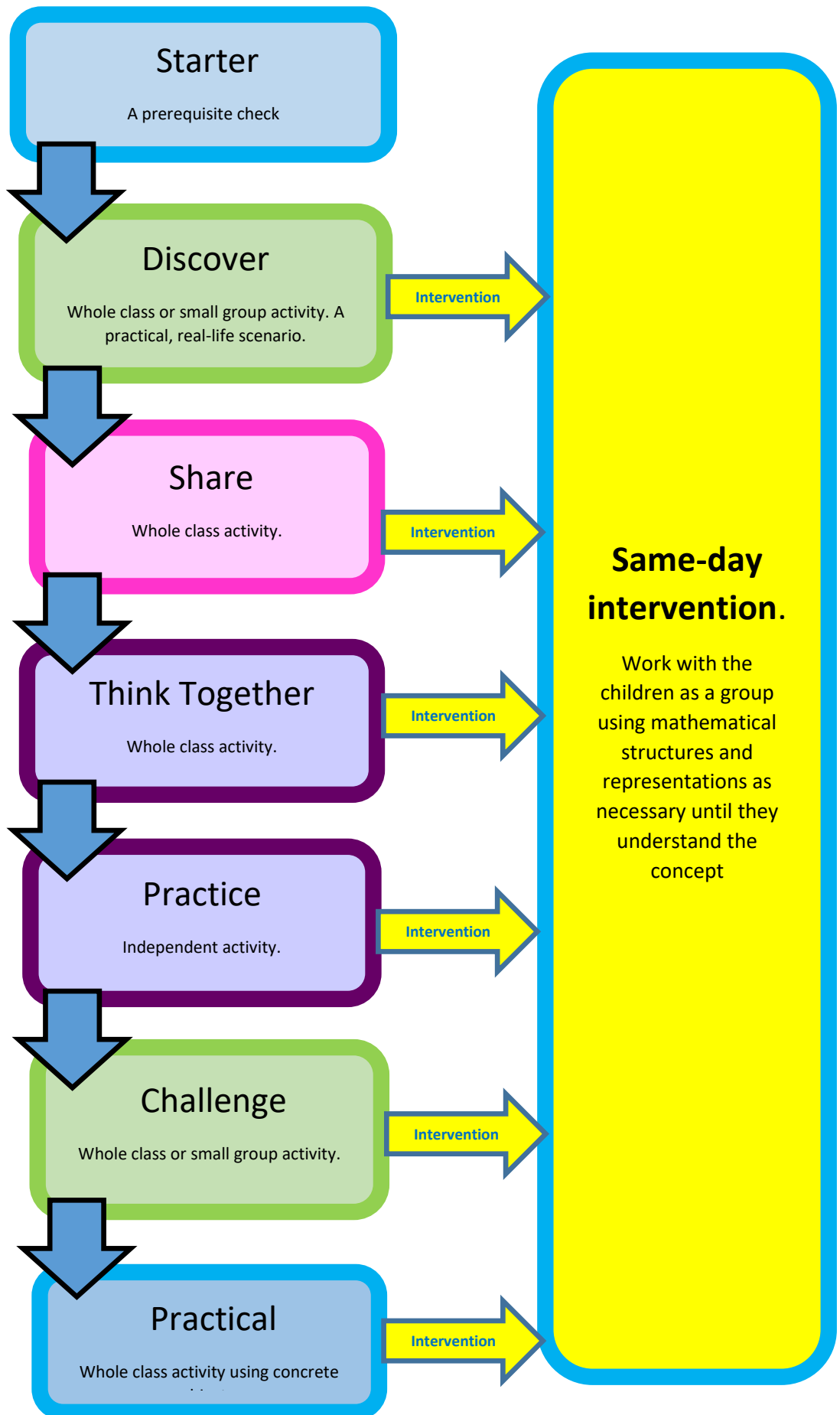
Magic Maths is defined as the opportunity to practise and develop basic declarative knowledge - number fluency, including the rapid recall of timetable facts and number bonds and the over-learning of previous taught concepts. Arithmetic is the opportunity to practise procedural knowledge - calculation fluency. Power Maths lessons enable children to develop and deepen their understanding of procedural knowledge, declarative knowledge and conditional knowledge.

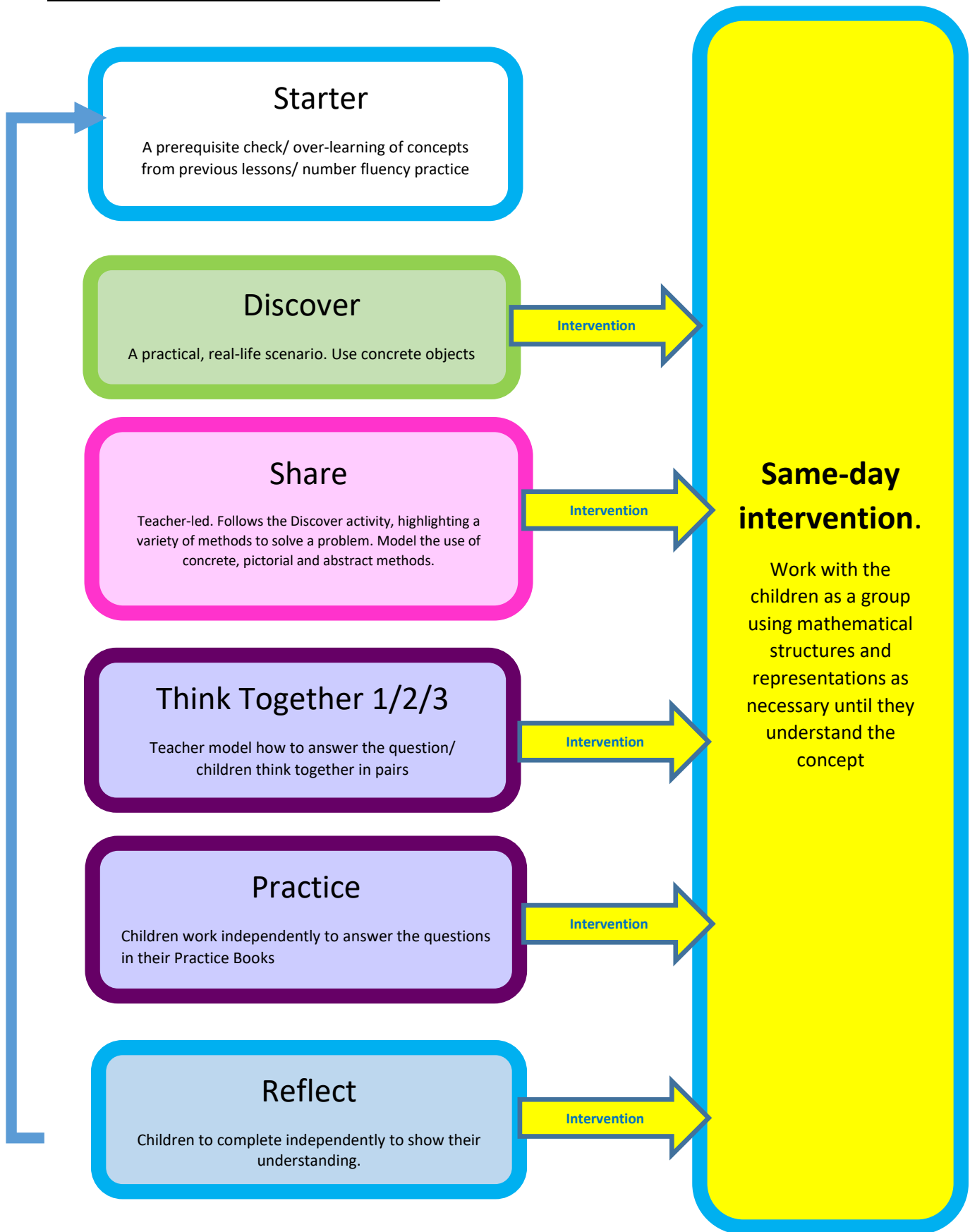
During the Power Maths lesson, the programme's lesson structure is followed, breaking the learning of a concept into smaller steps and activities to master the content. In EYFS the small steps are taught using one or two of the Power Maths activities each day until the unit and concepts are taught. In Years 1-6 all the Power Maths activities are used for each lesson to teach the small step, with a focus on same-day intervention and all children moving forward together.

The Power Maths programme provides a clear structure for the teaching and learning process to ensure that every child masters each maths concept securely and deeply. In each year group, the maths curriculum is broken down into core concepts, taught in units. A unit divides into smaller learning steps – lessons.

### Power Maths Teaching Model







## Home Learning

In EYFS and key stage 1 children are set tasks on Numbots and in key stage 2 children are set tasks on TT Rockstars.