



Supporting children with SEND

Mathematics



Maintaining an inclusive learning environment

- It is important learners at Seamer and Irton CP School feel able to work independently, but they should also work well alongside their peers. The best maths learning happens when learners can talk through their ideas with a teacher or a partner, and therefore it is good to encourage this productive discussion during lessons.
- When planning opportunities for talk, ensure that all learners have the support they need to access these discussions, which could include scaffolding such as sentence frames, visual support and/or peer partners.
- It is also important all learners have had the opportunity to use concrete resources, such as bead strings or counters, to support their learning. Often this works best if a concept is introduced with concrete resources readily available for the entire class to use. Once learners have been shown how to use the equipment to support their learning, they can decide whether they wish to use it or not.
- As maths is a subject where often there is an 'objective' right or wrong answer, learners can lack resilience or confidence in their own ability if they feel as though they are consistently getting things wrong. Learners can also lack resilience and confidence due to having large gaps in their learning. It is important to ensure learners are given equal opportunities to learn core knowledge, so that they are less likely to make mistakes. Learners can also benefit from a culture where mistakes are embraced and viewed as a part of the learning process.
- Linked to this, it is useful to point out, carefully, what a 'wrong answer' to a question could be, as this helps learners with lower confidence to demonstrate their understanding and develop their reasoning.

Curriculum Considerations

EYFS

- Recite numbers in order to 10.
- Know that numbers identify how many objects are in a set.
- Beginning to represent numbers using fingers, marks on paper or pictures.
- Sometimes match numeral and quantity correctly.

- Compare two groups of objects, saying when they have the same number.

Key Stage 1

Key Stage 1 builds upon what was learnt in EYFS

- Learners should have 1 to 1 correspondence when counting.
- Learners should develop automaticity in addition and subtraction facts to and within 10.
- Ensure learners have a concept of 'more than' and 'less than' and can describe the relative sizing of number.
- Encourage learners to represent numbers in many different ways, in pictures, as a calculation, in words.
- Ensure learners can explain the place value of 10s and 1s.
- Use resources such as tens frames, Numicon and base 10 blocks confidently, to support learning where needed.

Key Stage 2

- Ensure learners are secure with all times tables (by end of Year 4), as this acts as a foundation for other maths concepts.
- Learners should have secure understanding of place value, up to 10,000 and beyond.
- Learners should begin to apply their knowledge of number and written methods to reasoning problems.

Strategies to Support Learners with SEND

Supporting learners who struggle to retain vocabulary?

- Be conscious of the range of vocabulary learners are exposed to. There are often several different words for one mathematical concept (e.g., add, sum, total, plus). Learners will need these words to be defined each time a new one is introduced and may need questions to be rephrased to understand their meaning. Learning should be documented in the classroom and referred to within and across lessons, for example on a working wall.

	<ul style="list-style-type: none"> • Before a concept is introduced to the whole class, take time to familiarise chosen learners with new vocabulary and its meaning. • Use of visuals and actions can help to remind learners of the meaning of a word, or how it links to a mathematical symbol.
<p>Supporting learners who struggle to access lessons because of literacy difficulties?</p>	<ul style="list-style-type: none"> • If solving word problems, consider deploying an adult or pairing a learner with a confident peer to read the questions aloud to relieve the pressure of decoding the language. • Some learners may benefit from ‘drawing’ the word problem, so that after a question is read, the learner has an image to refer to. This can enable a learner to ‘see’ the information they are missing, and decide what they need to work out, so that they can solve the word problem. • Use of concrete resources and visuals is extremely important in helping learners to access questions. • Ensure worksheets are laid out clearly and learners are not overwhelmed with a page of questions. Some learners may require different resources, which could include plain paper or enlarged square paper, to access set work
<p>Supporting learners who need additional time to develop conceptual understanding</p>	<ul style="list-style-type: none"> • Use intervention time to play games that consolidate a new or tricky concept with an adult. • Use pre-teaching to give some learners a head-start. • Have clearly laid out worked examples for these learners to refer to when working independently. • Ensure tasks are scaffolded so that the learner can focus on the planned objective, for example prewrite information which is nonessential to

	<p>the learning (date, learning intention), so the learner can focus directly on the skill being taught.</p> <ul style="list-style-type: none"> • Use representations learners are familiar with to transfer and connect similar ideas. For example, in Year 1, they use a tens frame that shows ten ones is equal to one 10, and then in Years 4 and 5 a tens frame could be used to show ten tenths is equal to 1.
<p>Supporting learners who struggle with number fluency?</p>	<ul style="list-style-type: none"> • Help learners to practise fluency outside of maths lessons, e.g., during transitions the whole class could count in 5s as they move from the carpet to their tables. • If a particular fluency skill is required in a lesson (e.g., recalling the 5 times table), ensure learners practise this skill at the start of the lesson. During the retrieval practice, if needed, learners can have concrete resources or visual support, such as a times tables square, to remind them of number facts. • Use games as part of regular intervention, to practise basic number skills and help retain fluency facts
<p>Supporting learners who struggle with attention.</p>	<ul style="list-style-type: none"> • When modelling, encourage learners to make jottings, or copy each step out, onto a whiteboard at the same time. • Be flexible with how you deliver your input. Some learners could be completing an accessible activity independently at tables, whilst others are listening to the teaching input, and then they swap. This helps to keep inputs focused and short, maintaining the attention of those who struggle.

	<ul style="list-style-type: none">• Give learners a target number of questions to do – when working towards a goal, learners are more likely to be focused.• Use behaviour-specific praise, where you specifically identify what the learner has done well, to motivate learners and encourage their sustained attention to the task.• Incorporate some questions which appeal to a learner's interests, for example making questions about a particular character they like. This will help to maximise engagement and motivation.
Supporting learners who lack confidence in their own mathematical ability?	<ul style="list-style-type: none">• Send home photocopies of successful pieces of work to share with parents/carers.• Pose open-ended questions to the class, which have multiple answers. Ensure all learners have equal opportunities to answer.• Mark learners' work in the moment, rather than at the end of the lesson. If the learner can see they are on track as they are completing a task, this will motivate them to keep going and will boost their confidence.• Ask learners to be a help in the lesson preparation process, e.g., selecting images which will be used in the maths lesson or asking to set up resources. This will help the learner to feel more comfortable as they begin the lesson.