



Alvaston Junior Academy – Our Journey to Excellence

Mathematics

At Alvaston Junior Academy, we know mathematicians aren't people who find maths easy...they're people who enjoy how challenging it is! We want our children to develop a passion and confidence for number and its infinite applications. We want all of our pupils to leave Alvaston Junior Academy with the necessary skills and enthusiasm in maths to enable them to enjoy every opportunity that maths has to offer.

Here at Alvaston, we reject the idea that some children 'just can't do maths' and understand that many pupils have just developed –or inherited- a 'fear of maths'. Our approach is one of positivity, embracing mistakes and a shared experience. Our journey at Alvaston has been a rewarding challenge. It was important to us to develop a clear, engaging and inclusive whole-school approach. We have fully embraced and developed the 'Mastery Approach' here at Alvaston. We do not believe in a 'one size fits all' **approach** and instead draw upon a number of key resources such as White Rose, Maths No Problem and NCETM.

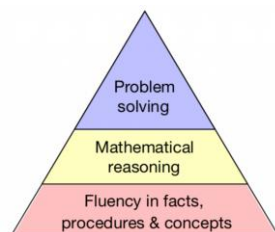
Learning Approach



We aim to provide our pupils with a fully immersive and conceptual understanding of mathematics. It is more than simply learning and memorising rote facts – although there is

a place for this. Maths can be a very daunting subject, and is abstract by nature. Our pupils are encouraged to explore links and multiple representations of mathematical topics. Although early years maths often starts quite visual with lots of physical aids, we view '**concrete, pictorial, abstract**' less as linear, but more triangular. To develop a secure and conceptual understanding of maths, pupils should be able to move between these three key areas at any point in their learning. This approach is particularly effective for both lower and higher attainers.

Learning Journey



The structure and direction of maths learning needs to be '**right**'. It was important to address any knowledge gaps within our context and a key area that we identified was fluency. This model works as an excellent scaffold for learning. We have developed strategies to ensure our learners are well equipped with the right tools. Here at Alvaston Junior Academy,

every maths lesson is opened with arithmetic practice. Pupils need to develop and use – with confidence – these operational strategies; this allows our pupils to apply their thinking skills to more challenging areas – a similar approach can be seen in writing when considering high frequency words.

In addition to this, one maths session per week is reserved for an arithmetic styled test, this allows children to enjoy watching progress they make and a very useful strategy for teacher afl thereby informing future planning. By drawing from a number of quality resources, we provide a rich platform for varied fluency to take place; with these key facts in place, pupils can enjoy the journey exploring the procedures and concepts through to reasoning and application in problem solving.

Vocabulary

Often, traditional math textbooks don't adequately prepare students to learn math vocabulary, other than to read and memorize. We need to help children learn the **language of mathematics**.

We know talk is important. We want our maths sessions to 'buzz'. We value collaboration, discussion and debate. Vocabulary and 'the language of maths' was

an area at Alvaston that we have worked hard to develop. Our classroom walls expose pupils to working examples, key facts, strategies and essential vocabulary. Developed by two experienced Alvaston teachers, our '**Talk Task**' is introduced at the start of every new maths topic. Understanding key terminology and variation of language in maths is another tool our pupils have in removing potential barriers in their learning.

Whole school approach

All teaching staff, have an invested interest and enthusiasm for maths at Alvaston Junior Academy. From creating clear and focussed curriculum maps for every year group to collaborating on our whole school '**Visual Calculation Policy**'. We want our pupils to develop the self-**belief** so they can go on to **achieve** and **succeed**.