STEM SENTENCES

What is a stem sentence?

In maths, stem sentences include **accurate mathematical vocabulary in a highly structured sentence that provides pupils with a way to communicate their ideas with mathematical precision as well as clarity / the explanation of a concept or problem using accurate vocabulary.** These can be used to state a fact, explain a thought process or give an answer to a problem.

Stem sentences can be used to:
- Express a key concept
- Generalise a key concept
- Provide a template for discussions or explanations / explaining thoughts and ideas

Each time learners repeat a stem sentence correctly, it helps embed the concept. For example, if a pupil is asked what the value of the digits in 24 are and they say, '24 has 2 tens and 4 ones', they are able to think aloud with mathematical precision and clarity. They are also able to embed the concept that 24 is the same as 2 tens and 4 ones (compared to an answer of simply '2 tens and 4 ones'). By encouraging pupils to say the whole sentence, they also reiterate the question and answer to others.

Stem sentences in maths allow learners to use relevant vocabulary to visualise and understand mathematical concepts and problems. This forms part of the CPA (concrete, pictorial, abstract) sequence of learning. Stem sentences represent the pictorial phase in the sequence, which allows learners to visualise problems before they start dealing with purely abstract ones.

By verbalising their thinking process, children are also able to gain a deeper understanding of what they're studying. It also allows them to teach their peers by explaining the answer to a problem or by going through their process of thinking.

Stem sentences in maths also improve a learner's wider reading comprehension by encouraging them to break a problem down into smaller chunks that they can understand.

'As each one does their part, we grow in love'
Ephesians 4 vs.16