STEM Sentences

STEM sentences are embedded throughout our daily Maths lessons for three key reasons:

- They improve pupil's oracy skills and challenge them to widen their mathematical vocabulary;
- They provide opportunities for our pupils to communicate their ideas with mathematical precision and clarity (through accurate vocabulary). This will then improve their ability to explain their reasoning and show their depth of understanding, ultimately allowing them to question/teach one another effectively.
- They structure key mathematical ideas or generalities, providing a framework which embeds knowledge and builds deeper understanding.

There are a number of different ways in which STEM sentences are used within our Maths lessons:

STEM Sentence 1

I Say, You Say, We All Say

If the rectangle is the whole, the shaded part is one third of the whole.

The STEM sentence is modelled. Pupils are then chosen to repeat the STEM sentence, before everyone says the sentence together. The repetition of a key concept helps pupils to embed mathematical knowledge.

STEM Sentence 2

Complete the Sentence

Example: Which is the largest decimal number?   0.001   0.01   0.1

The largest decimal number is ___. I know this because ___.

STEM Sentence 3

Variation

There are 12 stars. One third of the stars is equal to 4 stars.

Pupils are to vary key parts within the modelled STEM sentence to create a new STEM sentence of their own.

Create a Generalisation/Rule

When adding 10 to a number, the ones digit stays the same.

The STEM sentence is modelled. Pupils repeat the sentence, as the repetition of a generalisation/rule helps to embed mathematical concepts.

STEM Sentence 5

Reasoning

Children complete the STEM sentences below to explain the thoughts and reasons behind their answer.

I noticed that ___ so ____.

The answer can't be ___ because ____. Therefore, the answer must be ___.

I already know that ____ so ____.

The expectation within every Maths lessons is that our pupils are to speak in full sentences, explaining their thoughts, methods and connections in order to prove the accuracy of their responses.