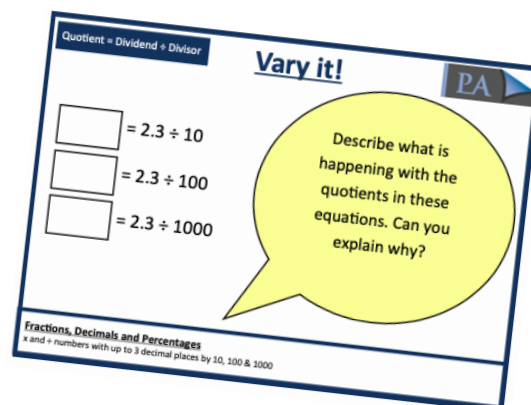


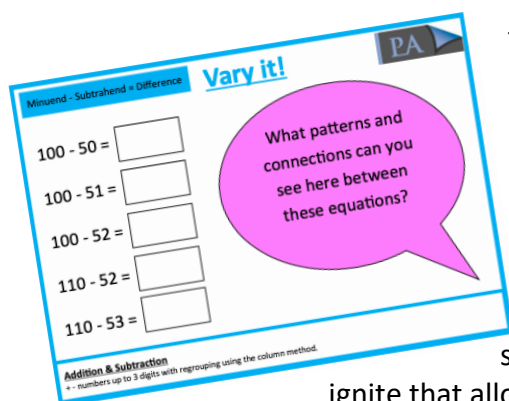
“Vary Its” – a new set of resources from PA Maths

The Vary-Its have been designed to develop pupils' ability to see connections and patterns within calculations, namely the mathematical structure of a calculation, and allows for learners to move away from simply being “good at maths” by, in some cases, robotically following a procedure - of which their understanding may have limited depth, and provides them with the opportunity to be mathematicians who can truly think mathematically, be that mentally or with informal written jottings.



Each of the Vary Its have been written using the principles of procedural variation, which means that as you move from calculation to calculation some things remain the same and some differ, allowing pupils to see the pinpointed mathematical idea that the set of calculations is aiming to expose. Teaching maths inclusive of procedural variation is central within the teaching for mastery approach.

The variation theory of learning (Marton 2015; Marton and Booth 1997) points to variation as a necessary component in teaching in order for students to notice what is to be learned.



The Vary Its have been designed so that even a perceived “more challenging calculation” can be calculated without the need for a formal written method. They push children to think. Too often children resort to using a formal written method, where it is unnecessary, time consuming and provides a barrier to allowing pupils to actually think. Although, on the surface, the Vary Its may seem repetitive, it is this and the level of practice they ignite that allows for the specific learning point to be exposed.

All of the Vary Its are designed to be a starting point for the teacher's thinking, and can (and should) be adapted to suit the specific needs of any class where necessary. This set, comprising hundreds of examples and ranging from EYFS – Y6, is also not exhaustive, and should lead practitioners to finding ways to develop their own sets of varied calculations for their pupils.

We are pleased to be able to offer this set of resources to our PA Maths members, and we hope that they are a useful tool in driving and enabling pupils' mathematical understanding. Further reading: What is made possible to learn when using the variation theory of learning in teaching mathematics? Angelika Kullberg · Ulla Runesson Kempe · Ference Marton

<https://core.ac.uk/download/pdf/81530337.pdf>