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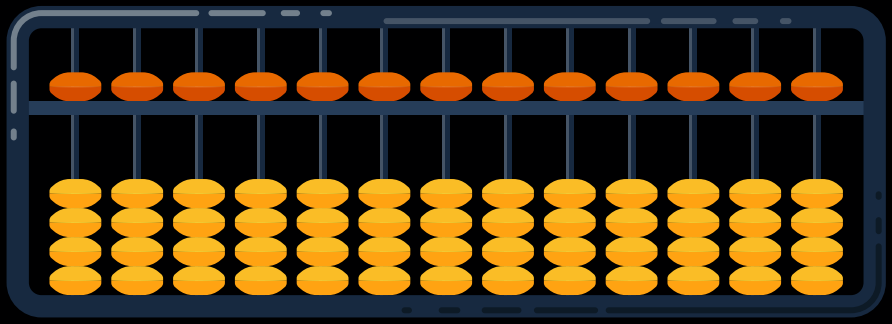
SENSEI
MAKING SENSE OF NUMBERS

What is Sensei?

Sensei is an after school coaching program which trains learners in the art of calculation. Through weekly tutoring sessions and daily online app tasks, children become fluent and confident in calculation in a fun and engaging way.

We know every learner's confidence impacts future learning; by reducing the reliance on working memory for calculation greatly increases learners' ability to succeed in multi step problems and to access higher level mathematics.

We want your child to recognise their full potential and believe they are a mathematician. The pace of Sensei's tasks and progress through the belts ensures learning is thorough and secure. Tricks and tips are not relied upon to show false levels of attainment and competence – learning is measured, meaningful and long lasting.



The use of the Abacus supports fluency and agility calculation, this is established through physical manipulation of the abacus, pictorial representations linking to abstract representation. The result is learners are fluent in knowledge of place value and calculation reducing the reliance on working memory.

Children become experts in calculation as they progress through the belts. Each belt is achieved after the successful completion of a 10 week course and obtaining a level of competence with both the abacus and calculation.

Belts are:

Research

Abacuses in education do not provide a short term fix but are part of a long term approach to develop confidence, reduce anxiety and reliance on working memory.

There have been numerous studies showing the success of the abacuses in education and it has been used successfully in the far east for many years. Underlying research for Sensei's structure is supported by:

Skemp – Relational learning supports confidence, reduces anxiety in recall.
Bruner – Multiple representations support mathematical understanding.
Ashcroft – Reducing reliance on working memory boosts and increases confidence, reducing anxiety in mathematics.
Bjork – Structuring learning programs with interleaving and retrieval helps shape memory.

Key Points

- When basic skills are automatic, mental space is available for deeper levels of thinking and understanding.
- Pupils' ability to calculate in different ways develops confidence in solutions, ability to prove and reason and a belief they are strong mathematicians.
- Knowledge literally provides the mind with room to move, develop and change.
- Repetition and consolidation are vehicles enabling knowledge to be stored within retrievable units allowing for mental growth through conceptual mastery and deeper understanding.
- Speed of access in memory functions also predicts confidence and positive feelings.
- Learning the abacus takes time, this is not a quick fix or a trick.

The Programme

Sensei is a series of programmes relating to a belt with specific learning criteria. Each belt is typically a 10 week course where children earn a belt through demonstrating competency levels with the abacus and associated mental calculation.

Abacus training improves calculation skills and pupils ability to perform arithmetic mentally.

Sensei will support your child's attainment in school and will not contradict approaches learned – instead it will place your child at an advantage.
The conceptual understanding of place value and calculation through application of the abacus reinforces modern approaches to learning mathematics. Importantly as your child reduces their reliance on their working memory to perform calculation, their ability to perform multi step calculations and to access higher level mathematics greatly increases.

Sensei belts do not correspond with school years and because each belt develops a level of competency on the abacus to perform calculation - we have children and adults with all levels of prior mathematical knowledge beginning on a white belt. We do not have a minimum age for accessing the course however it is typically suitable for children over the age of 8.

The progress of pupils through sensei is purposeful, measured and clearly outlined, we do not attempt to race through content. We have high expectations of all to achieve in an environment which is fun, supportive and engaging for children.

Session Overview

Each session is 1 hour long and includes:

- Practice previous learning
- New learning
- Practice new learning
- Games and tasks to reinforce the new learning

Skills must be practiced on the app for 10 minutes a day for a minimum of 5 days between sessions

Costs and Registration

Quality is important to us and we strictly limit the size of our classes.
For further details including course location, costs and course availability visit

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