



Neo Anzan Abacus Mental Maths

The abacus, an ancient calculating tool, continues to spark debate regarding its relevance in the age of digital computation. Is this venerable device still a valuable educational tool, or a quaint relic of a pre-digital past?



What is an Abacus?

The abacus is fundamentally a manual calculating instrument comprised of beads or similar counters that slide along rods within a frame. Its primary function is facilitating basic arithmetic operations: addition, subtraction, multiplication, and division. More than just a calculator, the abacus serves as a tangible bridge, connecting abstract mathematical concepts to concrete, visual representations. This tactile interaction is key to its enduring appeal, particularly in early education.

History of the Abacus?

Tracing the abacus's lineage reveals a history stretching back millennia. Its earliest known incarnation appeared in Mesopotamia around 2700-2300 BC, marking it as one of humanity's first computational tools. From these ancient origins, diverse forms of the abacus emerged across various cultures. The Sumerians employed it for basic calculations, while Egyptians and Greeks adapted it to their numerical systems. In China, the Suanpan (traditional Chinese abacus) evolved into a sophisticated instrument still used today. The Romans, too, utilised a version adapted to their numerical needs. Before the widespread adoption of Hindu-Arabic numerals, the abacus was indispensable for trade, commerce, and complex mathematical calculations.

What are the benefits of using an Abacus?

The benefits of abacus training extend far beyond mere arithmetic proficiency, particularly for young minds.

- It cultivates a robust sense of number fluency, enabling children to intuitively grasp numerical relationships. The focused manipulation of beads demands and enhances concentration, a skill increasingly valuable in our distractible digital age.
- Memory retention and recall are also strengthened, as users visualise and remember bead configurations.
- Furthermore, abacus training fosters logical reasoning and analytical skills, essential for problem-solving in various contexts.
- The resulting increase in calculation speed and accuracy naturally builds confidence in mathematical abilities, dispelling the anxiety that often accompanies the subject.
- Spatial awareness, too, is sharpened as children mentally manipulate the abacus.



How does the Abacus help children in the early stages of life?

For children aged 5-10, the abacus offers a uniquely engaging introduction to mathematics. It transforms abstract numbers into tangible entities, making them more accessible and understandable. This hands-on approach cultivates a deeper, more intuitive number sense, fostering cognitive development and refining hand-eye coordination. By turning maths into an enjoyable, interactive activity, the abacus reduces math anxiety and lays a solid foundation for future learning.

Abacus training programs are typically structured in progressive levels, each building upon the skills acquired in the previous one. A beginner typically starts with an introduction to the abacus, learning basic bead manipulation and simple addition and subtraction. The primary level introduces more complex addition and subtraction, along with the foundational concepts of multiplication and division. Secondary level training delves into advanced multiplication and division techniques. Expert-level training hones advanced mental arithmetic skills and cultivates rapid calculation abilities. Each level incorporates regular assessments and practice exercises to reinforce learning, with some programs integrating game-based elements to enhance engagement.

What is the course Structure?

Number of grades – 8

Duration: 16 weeks per grade

Total duration for all 8 grades: 128 weeks

Course session Grade 1 - 4: - 90 minutes/week

Course grade 5 - 8: - 2 hours/week

What is the fee structure?

Registration and starter pack - £50.00 (payable on the first day)

From Grade 2 onwards, an additional £10.00 will be charged for books at the beginning of each grade.

Tuition Fee - Grade – 4: - £15.00/ session Grade 5 - 8: - £20.00/ session

Siblings rate - Grade 1: - £13.00/ session Grade 5 - 8: - £18.00/ session



What are the learning outcomes for each grade?

1. Anzan beginners

- abacus structure
- abacus number system
- simple addition & subtraction

2. Grade 1

- addition & subtraction 1 digit - 4 rows
- learning the basics of mental maths
- direct Additions

3. Grade 2

- addition & subtraction of 1 digits – 4rows
- addition & subtraction of 2digits – 3rows
- addition & subtraction of 3digits, 2digits mixed -2rows
- Anzan 1d -2r
- Anzan 1d -4r

4. Grade 3

- addition & subtraction of 2digits – 4rows
- addition & subtraction of 3digits – 3rows
- Anzan 1digits & 2d -3r

5. Grade 4

- addition & subtraction of 2d -5r
- addition & subtraction of 3d -4r
- Anzan 2d,2d,1d mixed -3r & Anzan 1d- 6r
- multiplication 2d x 1d
- learnt introduction to division concepts

6. Grade 5

- addition & subtraction of 2d -6r
- addition & subtraction of 4d – 2r
- Anzan 2d -3r & 1d -7r
- multiplication of 3d X 1d



- division 2d to 3d divide by 1d
- learnt introduction to decimals

7. Grade 6

- addition & subtraction of 2d & 3d mixed with 7r
- addition & subtraction of 4d -3r
- Anzan 2d -4r & 1d -8r
- division 2d X 2d & 4d by 1d
- decimals addition & subtraction of 2d and 3d mixed-3r

8. Grade 7

- addition & subtraction of 1d, 2d, 3d mixed with 8r
- addition & subtraction of 4d -4r
- Anzan 2d and 3d mixed- 5r & 1d – 9r
- multiplication 3d x 2d
- division of 3d by 2d
- Decimal numbers addition and subtraction of 2d, 3d & 4d mixed-3r
- Decimal numbers multiplication and division of 3d x 1d & 2d divide by 1d

9. Grade 8 (last grade)

- addition & subtraction of 2d and 3d mixed with 10r
- addition & subtraction of 5d – 5r
- Anzan 2d and 3d mixed 5r & 1d -10r
- multiplication of 4d x 2d
- division of 4d by 2d
- decimal numbers addition & subtraction of 2d,3d, 4d, and 5d mixed with 4r
- decimal numbers multiplication of 3d x 2d
- decimal numbers division of 4d divide by 1d & 3d divide by 2d

The impact of abacus training on pupils extends beyond the mathematics classroom. Students often exhibit improved grades and test scores, not just in math but across various subjects, thanks to enhanced cognitive abilities. The hands-on nature of abacus learning keeps students actively engaged, fostering a genuine interest in mathematics. Moreover, the development of faster data processing skills benefits students in all areas of their academic pursuits

While the abacus offers undeniable cognitive benefits, it is essential to acknowledge its limitations in the context of modern mathematics education. The abacus excels at basic arithmetic but lacks the capacity to



handle complex functions such as trigonometry or calculus. Furthermore, mastering the abacus requires a significant time investment, potentially diverting resources from other crucial areas of mathematical study. Some argue that modern techniques like Vedic Math or even the strategic use of calculators may offer more efficient routes to advanced mathematical proficiency.

How does the Abacus Anzan mental maths help in School?

Ultimately, the abacus remains a valuable tool for developing foundational mathematical skills and cognitive abilities, particularly in young children. However, it should be viewed as a complement to, rather than a replacement for, modern mathematics education. As technology continues to evolve, the challenge lies in finding the optimal balance between traditional methods and innovative tools to cultivate a generation of mathematically literate and confident individuals. The abacus, in its humble way, reminds us that sometimes the most enduring solutions are found not in the latest technology, but in the wisdom of ages.

Contact:

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