

Cost and Impact review of Numicon

Background:

Numicon was introduced across the school in the 2013-14 academic year and has a really positive impact across the school, but of particular note is the impact that it has had in Year 2 Pupil Premium children's progress.

Numicon was purchased by the school and then teachers and TAs trained in the use of Numicon. It is predominantly used to support small group work, where it has been seen to have a particular impact on children's developing understanding of number.

Estimated Cost:

Purchase of numicon resources - £1584.90

Estimated cost of training for teachers and TAs (including AST time, Numicon) - £1,000

Additional Pupil Premium and 1:1 work (estimated at 30 mins of TA time per class in Years 1-4, per week) - £720

1hr per week UPS 3 teacher time with Year 3 children during 2013-14 academic year - £600

Total estimated cost of Numicon programme over last academic year: £3904.90

Impact of Numicon programme:

KS2 Maths progress

Progress in Maths at KS2 (identified as an area of weakness by OFSTED in 2013) has improved significantly and Numicon has played a key role in developing teaching and learning in the subject.

At the start of the 2014-15 academic year, all of our junior classes are on target to make at least 14 points progress in Maths by the end of KS2.

Year 4 have made 3.9 points progress to date (target 3.5 points)

Year 5 have made 7.12 points progress to date (target 7 points)

Year 6 have made 10.92 points progress to date (target 10.5 points)

Our predictions for the current Year 6 cohort are that 96% will make expected progress, with 42% making better than expected progress.

Year 2 pupil premium children

Year 2 pupil premium children were supported through small group interventions and in class with Numicon and made superb progress through the year (6.7 points progress on average) against a class average of 6.6 points.

Teacher Led focus group:

One of our teachers led a weekly Numicon group for 3 children in Year 3. Two of these children were Pupil Premium and both children made 4 points progress over the year, exceeding the class.

Pupil Voice:

It is particularly hard to quantify the impact in other areas of school life, but the SENCO at the time conducted a pupil voice survey of children who'd had significant use of Numicon.

'I feel much more confident in maths because Numicon helps me to understand'

'I like it a lot because it helps me with maths'

'You can do adding up and lots of other different stuff – I really like it'

TA Voice:

Child A in Reception: 'I feel he has made a great improvement. He is now very keen to play maths games and use the iPad too'

Child B in Year 1: 'Using Numicon she is able to use number bonds to 10 verbally and in written work'

Child C in Year 5: 'She uses Numicon confidently to solve mathematical problems. It has enabled her to confidently use number lines. Assessment shows that she has nearly reached Level 3C.'

Child D in Year 5: 'He can now use Numicon to solve addition and subtraction problems involving 2-digit numbers independently in class.'

Next steps:

In January 2015, 5 out of 7 teachers will have joined the school since September and so the bulk of work required is to arrange training in Term 4 (using our traded services time) for teachers in the use of Numicon to ensure that the impact of Numicon continues to be felt.