The **EEF**ective Kent Project

Making it Work for All: Moving from Implementation to Impact

1st Class @ Number: A Helping Hand For All Children's Early Number Learning

The Stour Academy Trust

Kent Promising Project Workshop: 1st Class @ Number

- A workshop to demonstrate how schools in The Stour Academy Trust have implemented the early number intervention 'Becoming 1st Class @ Number' and '1st Class @ Number' and the impact this has had on our younger children.
- Introductions
- https://educationendowmentfoundation.org.uk/projects-and-evaluation/projects/1stclassnumber

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1st Class @ Number workshop agenda:

- Welcome and introductions
- What is 1st Class @ Number?: Jason Horne
- The Rationale & implementation Journey @ Stour: Vicki Acors
- A Case Study: Richmond Academy: Emily Smith
- A Case Study: Landsowne Primary: Rebecca Sewell

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The Stour Academy Trust

- https://thestouracademytrust.org.uk/
- The Stour Academy Trust was established in Sept 2012 following the federation of our two founding schools, Sturry C E Primary School and Water Meadows Primary School. We are now a Multi Academy Trust consisting of eight primary schools across three geographical areas – Canterbury, Ashford and Swale.
- Today, two of our schools in the most deprived areas in Swale (Sittingbourne and Isle of Sheppey) will be presenting to you about how 1st Class has been implemented in their schools
- Jason will now talk you through the intervention….

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Every Child Counts

Mathematics

intensive intervention

lighter-touch intervention

Numbers Count

specialist teacher

1stClass@Number

trained teaching assistant

Success@Arithmetic

trained teacher and teaching assistant

1st Class@Number

For children who need a helping hand with mathematics:

Becoming 1st Class@Number for children who need further support to access the Year 1 curriculum.

1st Class@Number 1 for children who need further support at the level of the Year 1 curriculum.

1st Class@Number 2 for children who need further support at the level of the Year 2 curriculum.

Led by a teaching assistant.

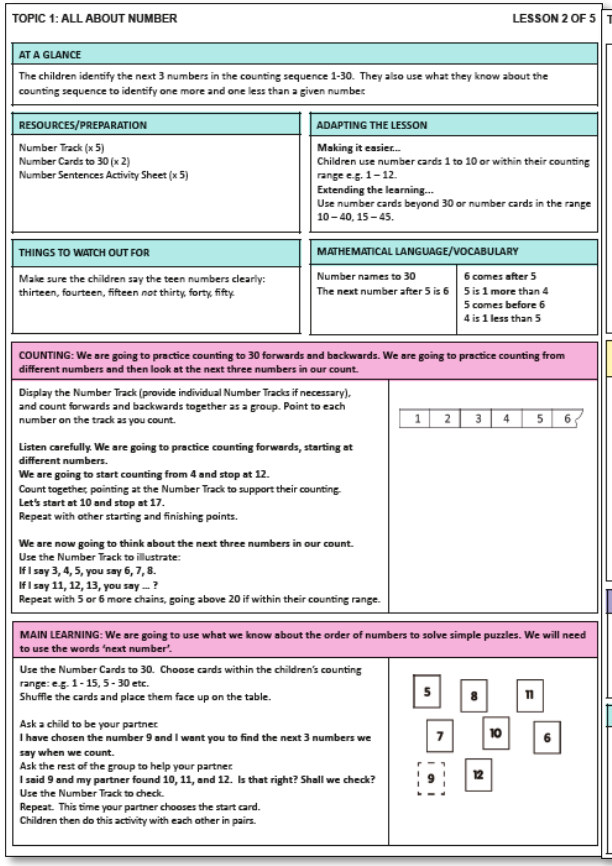
How 1st Class@Number 1 works

Organisation	The Lessons
• 4 children in a group • 30-minute lessons • 3 times a week • 10 weeks	• Delivery Driver theme • real-life scenarios for stimulus and application • enjoyable activities to build confidence • focus on understanding number, place value and calculation • adaptable to children's needs
Training	
• 6 half days for the TA • 2 half days for a Link Teacher • extensive plans & resources	

*Children have made an average Number Age gain of **13 months in only 4 months***

Edge Hill University data collected using a standardised assessment test

What does 1st Class@Number look like



TOPIC 1: ALL ABOUT NUMBER — LESSON 2 OF 5

AT A GLANCE

The children identify the next 3 numbers in the counting sequence 1-30. They also use what they know about the counting sequence to identify one more and one less than a given number.

RESOURCES/PREPARATION

Number Track (x 5)
Number Cards to 30 (x 2)
Number Sentences Activity Sheet (x 5)

ADAPTING THE LESSON

Making it easier...
Children use number cards 1 to 10 or within their counting range e.g. 1 – 12.
Extending the learning...
Use number cards beyond 30 or number cards in the range 10 – 40, 15 – 45.

THINGS TO WATCH OUT FOR

Make sure the children say the teen numbers clearly: thirteen, fourteen, fifteen *not* thirty, forty, fifty.

MATHEMATICAL LANGUAGE/VOCABULARY

Number names to 30
The next number after 5 is 6
6 comes after 5
5 is 1 more than 4
5 comes before 6
4 is 1 less than 5

COUNTING: We are going to practice counting to 30 forwards and backwards. We are going to practice counting from different numbers and then look at the next three numbers in our count.

Display the Number Track (provide individual Number Tracks if necessary), and count forwards and backwards together as a group. Point to each number on the track as you count.

Listen carefully. We are going to practice counting forwards, starting at different numbers.
We are going to start counting from 4 and stop at 12.
Count together, pointing at the Number Track to support their counting.
Let's start at 10 and stop at 17.
Repeat with other starting and finishing points.

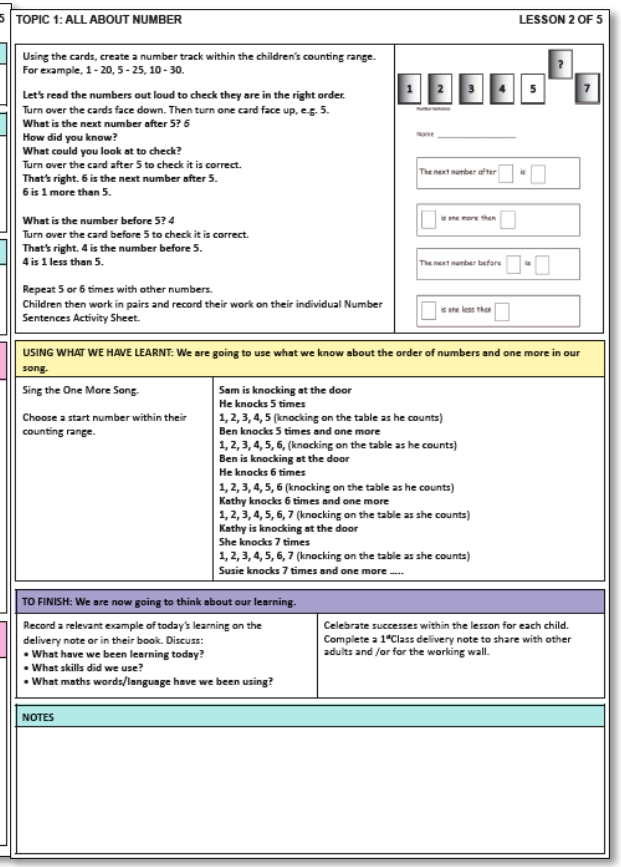
We are now going to think about the next three numbers in our count.
Use the Number Track to illustrate:
If I say 3, 4, 5, you say 6, 7, 8.
If I say 11, 12, 13, you say ... ?
Repeat with 5 or 6 more chains, going above 20 if within their counting range.

1	2	3	4	5	6

MAIN LEARNING: We are going to use what we know about the order of numbers to solve simple puzzles. We will need to use the words 'next number'.

Use the Number Cards to 30. Choose cards within the children's counting range: e.g. 1 - 15, 5 - 30 etc.
Shuffle the cards and place them face up on the table.

Ask a child to be your partner.
I have chosen the number 9 and I want you to find the next 3 numbers we say when we count.
Ask the rest of the group to help your partner.
I said 9 and my partner found 10, 11, and 12. Is that right? Shall we check?
Use the Number Track to check.
Repeat. This time your partner chooses the start card.
Children then do this activity with each other in pairs.



TOPIC 1: ALL ABOUT NUMBER — LESSON 2 OF 5

Using the cards, create a number track within the children's counting range. For example, 1 - 20, 5 - 25, 10 - 30.

Let's read the numbers out loud to check they are in the right order.
Turn over the cards face down. Then turn one card face up, e.g. 5.
What is the next number after 5? *6*
How did you know?
What could you look at to check?
Turn over the card after 5 to check it is correct.
That's right. 6 is the next number after 5.
6 is 1 more than 5.

What is the number before 5? *4*
Turn over the card before 5 to check it is correct.
That's right. 4 is the number before 5.
4 is 1 less than 5.

Repeat 5 or 6 times with other numbers.
Children then work in pairs and record their work on their individual Number Sentences Activity Sheet.

Name _____

The next number after ☐ is ☐

☐ is one more than ☐

The next number before ☐ is ☐

☐ is one less than ☐

USING WHAT WE HAVE LEARNT: We are going to use what we know about the order of numbers and one more in our song.

Sing the One More Song.

Choose a start number within their counting range.

Sam is knocking at the door
He knocks 5 times
1, 2, 3, 4, 5 (knocking on the table as he counts)
Ben knocks 5 times and one more
1, 2, 3, 4, 5, 6, (knocking on the table as he counts)
Ben is knocking at the door
He knocks 6 times
1, 2, 3, 4, 5, 6 (knocking on the table as he counts)
Kathy knocks 6 times and one more
1, 2, 3, 4, 5, 6, 7 (knocking on the table as she counts)
Kathy is knocking at the door
She knocks 7 times
1, 2, 3, 4, 5, 6, 7 (knocking on the table as she counts)
Susie knocks 7 times and one more .....

TO FINISH: We are now going to think about our learning.

Record a relevant example of today's learning on the delivery note or in their book. Discuss:
- **What have we been learning today?**
- **What skills did we use?**
- **What maths words/language have we been using?**

Celebrate successes within the lesson for each child. Complete a 1stClass delivery note to share with other adults and /or for the working wall.

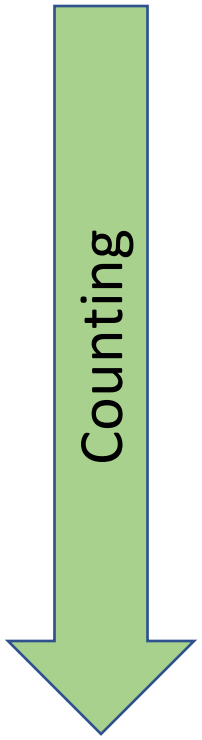
NOTES

New Training

- 11/ 12th July
- Jason.horne@theeducationpeople.org

- From 6th November 2nd Cohort

Every Child counts

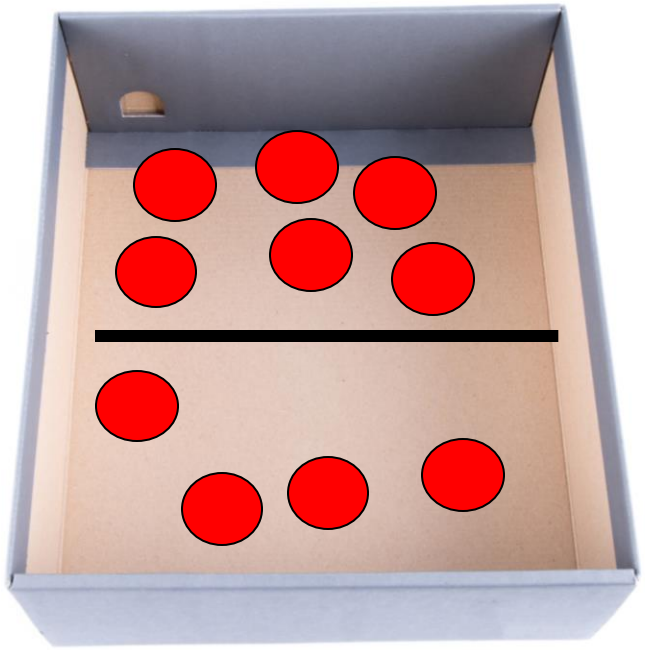


Exploring what children already know

Building on what children CAN DO

Applying what they know

Explore what children already know:



What c
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ers?

What can you see?

How many altogether?

How do you know?

How many on this side?

How many on the other side?

Which side has the most?

Which side has the fewest?

What happens if I turn the box around?

https://educationendowmentfoundation.org.uk/news/eef-blog-listening-to-inform-learning

The Rationale- why engage with the project? (Explore stage)

- 1stClass@Number offers schools a choice of three effective, small group programs for children who need additional support with the KS1 mathematics curriculum.

- The importance of ensuring the foundations for number and number sense are built strongly in the younger year groups.
- This was especially important due to disruptions in learning caused by Covid-19. We did not have a more structured maths intervention for our younger children at that time. The research we carried out showed clearly that 1st Class is able to have a high impact, whilst the children also develop an enjoyment and confidence in number due to the practical, fun nature of the sessions.

- provides targeted use of the Pupil Premium (we used PP funding initially)
- supports the National Curriculum for Mathematics
- raises mathematical attainment
- increases enjoyment and engagement in mathematics
- develops teaching assistants' subject knowledge and wider effectiveness
- provides detailed evidence of progress and impact.

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MAKING BEST USE OF TEACHING ASSISTANTS

Summary of recommendations

The effective use of TAs under everyday classroom conditions

The effective use of TAs in delivering structured interventions out of class

Integrating learning from work led by teachers and TAs

Sections are colour coded for ease of reference

1 TAs should not be used as an informal teaching resource for low attaining pupils

The evidence on TA deployment suggests schools have drifted into a situation in which TAs are often used as an informal instructional resource for pupils in most need. This has the effect of separating pupils from the classroom, their teacher and their peers.

Although this has happened with the best of intentions, this evidence suggests that the status quo is no longer an option.

School leaders should systematically review the roles of both teachers and TAs and take a wider view of how TAs can support learning and improve attainment throughout the school.

2 Use TAs to add value to what teachers do, not replace them

If TAs have a direct instructional role it is important they add value to the work of the teacher, not replace them – the expectation should be that the needs of all pupils are addressed, first and foremost, through high quality classroom teaching. Schools should try and organise staff so that the pupils who struggle most have as much time with the teacher as others. Breaking away from a model of deployment where TAs are assigned to specific pupils for long periods requires more strategic approaches to classroom organisation. Instead, school leaders should develop effective teams of teachers and TAs, who understand their complementary roles in the classroom.

Where TAs are working individually with low attaining pupils the focus should be on retaining access to high-quality teaching, for example by delivering brief, but intensive, structured interventions (see Recommendations 5 and 6).

3 Use TAs to help pupils develop independent learning skills and manage their own learning

Research has shown that improving the nature and quality of TAs' talk to pupils can support the development of independent learning skills, which are associated with improved learning outcomes. TAs should, for example, be trained to avoid prioritising task completion and instead concentrate on helping pupils develop ownership of tasks.

TAs should aim to give pupils the least amount of help first. They should allow sufficient wait time, so pupils can respond to a question or attempt the stage of a task independently. TAs should intervene appropriately when pupils demonstrate they are unable to proceed.

4 Ensure TAs are fully prepared for their role in the classroom

Schools should provide sufficient time for training and for teachers and TAs to meet out of class to enable the necessary lesson preparation and feedback.

Creative ways of ensuring teachers and TAs have time to meet include adjusting TAs' working hours (e.g. start early, finish early), using assembly time and having TAs join teachers for (part of) Planning, Preparation and Assessment (PPA) time.

During lesson preparation time ensure TAs have the essential 'need to knows':

- Concepts, facts and information being taught
- Skills to be learned, applied, practised or extended
- Intended learning outcomes
- Expected/required feedback.

5 Use TAs to deliver high quality one-to-one and small group support using structured interventions

Research on TAs delivering targeted interventions in one-to-one or small group settings shows a consistent impact on attainment of approximately three to four additional months' progress (effect size 0.2–0.3). Crucially, these positive effects are only observed when TAs work in structured settings with high quality support and training. When TAs are deployed in more informal, unsupported instructional roles, they can impact negatively on pupils' learning outcomes.

6 Adopt evidence-based interventions to support TAs in their small group and one-to-one instruction

Schools should use structured interventions with reliable evidence of effectiveness. There are presently only a handful of programmes in the UK for which there is a secure evidence base, so if schools are using programmes that are 'unproven', they should try and replicate some common elements of effective interventions:

- Sessions are often brief (20–50mins), occur regularly (3–5 times per week) and are maintained over a sustained period (8–20 weeks). Careful timetabling is in place to enable this consistent delivery
- TAs receive extensive training from experienced trainers and/or teachers (5–30 hours per intervention)
- The intervention has structured supporting resources and lesson plans, with clear objectives
- TAs closely follow the plan and structure of the intervention
- Assessments are used to identify appropriate pupils, guide areas for focus and track pupil progress. Effective intervention ensure the right support is being provided to the right child
- Connections are made between the out-of-class learning time intervention and classroom teaching (see Rec 7).

7 Ensure explicit connections are made between learning from everyday classroom teaching and structured interventions

Interventions are often quite separate from classroom activities. Lack of time for teachers and TAs to liaise allows relatively little connection between what pupils experience in, and away, from, the classroom. The key is to ensure that learning in interventions is consistent with, and extends, work inside the classroom and that pupils understand the links between them. It should not be assumed that pupils can consistently identify and make sense of these links on their own.

The effective use of TAs in delivering structured interventions out of class

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Treat scale-up as a new implementation process

Identify a key priority that is amenable to change

Continuously acknowledge support and reward good implementation practices

Systematically explore programmes or practices to implement

Plan for sustaining and scaling the intervention from the outset

Examine the fit and feasibility with the school context

SUSTAIN

EXPLORE

STABLE USE OF APPROACH →

← **ADOPTION DECISION**

DELIVER

PREPARE

Use implementation data to drive faithful adoption and intelligent adaption

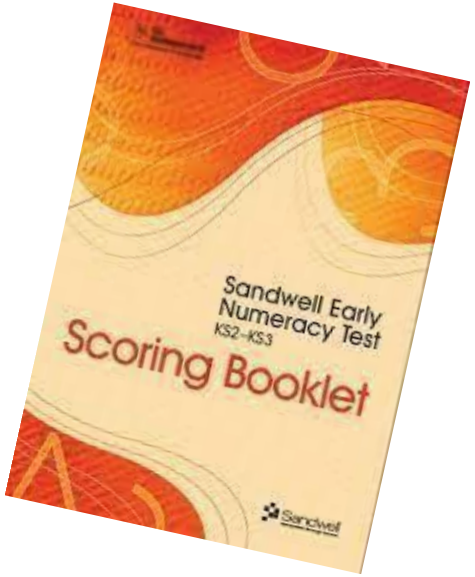
Develop a clear, logical and well specified plan

NOT READY - ADAPT PLAN

Reinforce initial training with follow-on support within the school

Assess the readiness of the school to deliver the implementation plan

How do we know it works?



- We used the Early Sandwell test to baseline our children and then used it at the end of the intervention to check impact. The impact of 1stClass@Number 1 was impressive.

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A Case Study: Richmond Academy

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The Context of the Academy

- Large primary school with the capacity for two form entry in every year group.
- There is a Nursery on site that is fully subscribed with a waiting list.
- Richmond transferred leadership to the Stour Academy Trust in Jan 2017 and the headteacher was appointed in April 2017. The school has 1 fulltime deputy headteacher and 2 assistant headteachers. Richmond was awarded Microsoft Schools Status recently, which we have been working towards since 2020.
- The school's FSM is at 61% which is significantly higher that national average.
- Nearly half, 48%, are eligible for additional government funding for disadvantaged pupils.
- Pupils receiving SEN support are significantly above average, with this increasing.
- 12% of our pupils have a EHCP.

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What did we do?

- We identified at the start of Sept 2022 that a small number of children in year 2 had significant gaps in their number knowledge, which was holding them back in all areas of the maths curriculum.
- We identified a strong TA and delivered training to support with the delivery of the programme.
- The DHT and the skilled TA gathered baseline assessments using the Sandwell Assessment tool.
- Children were placed into the correct group depending on the need. Did they need Becoming 1st class or 1st class?

- Given the need, we opted to deliver this intervention as the building blocks to their maths learning.

What has been the impact?

Name	Date of Baseline	Baseline raw score	Baseline Age Equivalent	End of intervention raw score	End of intervention Age Equivalent	KS1 SATs Score Arithmetic /25
Child A	Sept 2022	14	4y 2m	26	5y 2m	9/25
Child B	Sept 2022	15	4y 4m	35	5y 10m	15/25
Child C	Sept 2022	12	4y 0m	28	5y 4m	9/25
Child D	Sept 2022	22	5y 1m	35	5y 10m	13/25

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What does it look like in practice?

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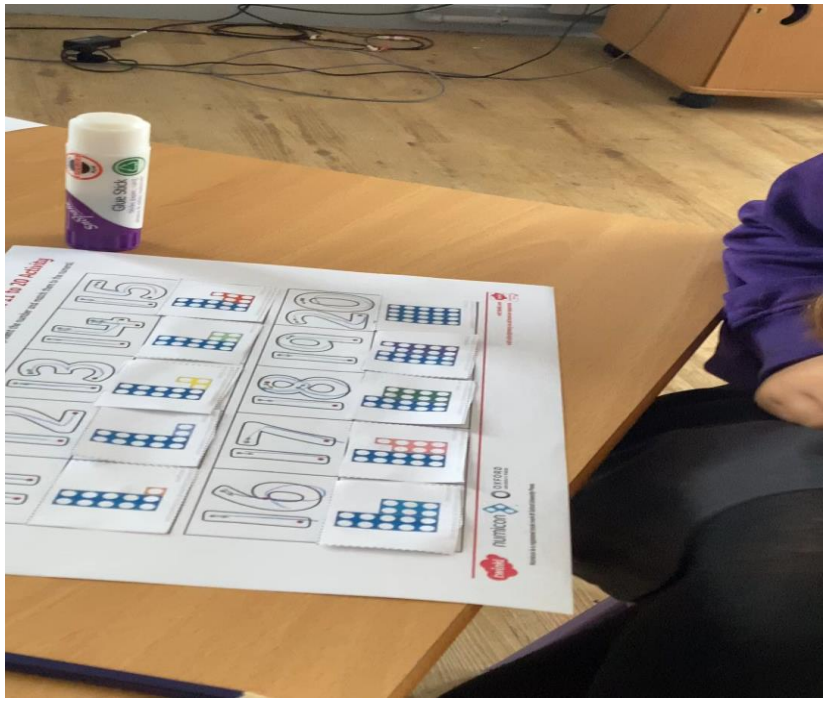
What has been the impact?



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What do the children and TA's have to say?

First class takes the stress away from resourcing. It's all there I just like to add and change it up! **-Year 2 TA**

The confidence in the children has been amazing. They enjoy maths more as we have removed those gaps! **-Year 2 TA**

These children can access arithmetic at year 2 level with a little scaffolding. At the start of the year 1-10 was a difficulty. I have loved seeing the maths confidence grow! **-Year 2 Teacher**

I can count all the way to 50 now but I used to get stuck stuck on number 9! **-Year 2 child**

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A Case Study: Lansdowne Primary School

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What is the context of the school?

Lansdowne Primary School is a bigger than average-sized primary school, from a predominantly white British background. The school converted to an academy in November 2014 under the leadership of the Stour Academy Trust, and at this time began to grow from a one-form entry to a two-form entry school. A significant number of mobile children have come from other schools in the Sittingbourne or wider Swale area. More recently families have requested places from further afield; London boroughs and Medway.

- There are currently 414 children on roll.
- The number of pupils eligible for additional government funding for disadvantaged pupils (32%) is **significantly higher** than the national average (22.5%).
- The number of pupils with English as an additional language (20.8%) is slightly higher than the National average (19.5%), and the percentage is continuing to slightly increase year on year.
- Pupils receiving SEND support (15%), is roughly in line with National (13%), with a further 12% being monitored and this number is increasing. Those with an EHC plan (2.8%) are roughly in line with National (2.3%)
- The **mobility of pupils in the school is high.**

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What did we do?

- Started using as an intervention Summer term 2021 for pupils in year 1 and 2 to secure number knowledge for the next year.

- This year it has been used as a maths lesson for pupils in year 2 and 4 to secure number knowledge.

- Year 1 are currently trying this approach in some of their enhanced provision lessons.

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Impact

1st year of running intervention

Tracking the impact of 1st Class @ Number

1st Class @ Number 1

Date of baseline

Name and Year Group	Date of baseline	Baseline Raw Score	Baseline Age equivalent	Baseline confidence range: lower score	Baseline confidence range: higher score	End of intervention raw score	End of intervention age equivalent	Difference in raw score	Difference in age equivalent
Child A Year 2	16.06.21	36	5y 11m	5y 6.5m	6y 3.5m	41	6y 4m	5	5m
Child B Year 2	17.06.21	36	5y 11m	5y 6.5m	6y 3.5m	45	6y 7m	9	8m
Child C Year 2	16.06.21	38	6y 1m	5y 8.5m	6y 5.5m	53	7y 3m	15	1y 2m

Tracking the impact of 1st Class @ Number

1st Class @ Number 1

Date of baseline

Name and Year Group	Date of baseline	Baseline Raw Score	Baseline Age equivalent	Baseline confidence range: lower score	Baseline confidence range: higher score	End of intervention raw score	End of intervention age equivalent	Difference in raw score	Difference in age equivalent
Child A Year 1	01.04.21	15	4y 4m	4y 0m	4y 8m	28	5y 4m	13	1y
Child B Year 1	01.04.21	26	5y 2m	4y 9.5m	5y 6.5m	34	5y 9m	8	7m
Child C Year 1	01.04.21	11	4y 0m	3y 8m	4y 4m	35	5y 10m	24	1y 10m
Child D Year 1		25	5y 1m	4y 8.5	5y 5.5m	35	5y 10m	10	9m

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Impact

Year 2 intervention

Tracking the impact of 1st Class @ Number

1st Class @ Number 1

Date of baseline

Name and Year Group	Date of baseline	Baseline Raw Score	Baseline Age equivalent	Baseline confidence range: lower score	Baseline confidence range: higher score	SATs
Child A Year 2	13/3/22	33	5y 8m	5y 3.5m	6y 0.5m	26/60
Child B Year 2	13/3/22	35	5y 10m	5y 5.5m	6y 2.5m	31/60

Year 4 intervention

Tracking the impact of 1st Class @ Number

1st Class @ Number 1

Date of baseline

Name and Year Group	Date of baseline	Baseline Raw Score	Baseline Age equivalent	Baseline confidence range: lower score	Baseline confidence range: higher score	End of intervention raw score	End of intervention age equivalent	Difference in raw score	Difference in age equivalent
Child A Year 4	11/11/22	25	5y 1m	4y 8.5m	5y 5.5m	40	6y 3m	15	1y 2m
Child B Year 4	11/11/22	37	6y 0m	5y 7.5m	6y 4.5m	52	7y 2m	15	1y 2m

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What do the children and TA's have to say?

It's been great to have the children so excited about maths, they want it to carry on and some children tried to sneak out with us! - Mrs Hudson – trained TA for Becoming 1st class at number

I found the program easy to follow and simple to delivery. The results speak for themselves, both my students I worked with made 18 month Both the children enjoyed the sessions and were engaged with the teaching technique used. Mrs Andrews – Year 4 TA delivering 1st class @ number

I loved a small group and all the fun activities. Going back over my number facts has really helped me with other work – Year 4 child.

Current year 1 child - This is a fun way to learn about numbers.

I can now count in my tens and I couldn't do that before! - current year 1 child

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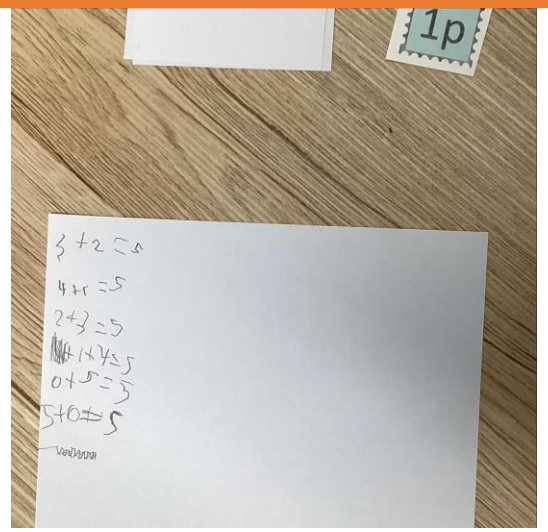
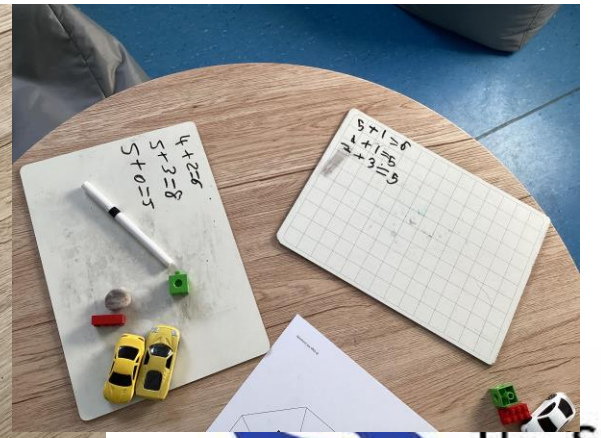
Some examples of work





Setting the scene	Adding two number under ten, T was able to do these simple calculations in his head. When subtracting T struggled to visualise the calculation in his head and needed manipulative to support.
Lesson 1	T was able to tell me he had 4 cars and 8 pebbles, so 12 altogether. T was able to count on from a set number, he knew to have the largest number in his head and to count on using the smaller number, this will give us the number 'all together'.
Lesson 2	Counting forward and backwards in 10's, T was able to do this, though he used the hundred square to support him when counting backwards, after his first go he removed his finger and only glanced at it for support. Counting forwards in ten he was secure, including crossing 100. Counting on from a number he did easily, giving the answer quickly, when asked how to work it out he simply said, 'I know it.' I encouraged him to count on one at a time, but he did not voice this, if he used this technique, it was in his head.
Lesson 3	T was able to count forward and backwards to 20 with no support or visual aid. He needed a number line to go backwards from 30 but was able to go forwards to 30 independently. T independently found all the ways to make 5, nd was able to tell me what a plus and equal sign look like and mean. He was able to record these number sentences
Lesson 4	As yesterday T can independently count to 30 but needed the number line for support with counting backwards from 30. T was able to identify house no.4 by counting backwards from house no.8. When playing '5 nice things' he was able to write the number sentences to match the game as we played and worked out the maths in his head without having to count each item.

Further information

Further information about 1stClass@Number is available on Edge Hill University's website.

For more information about current and future funding opportunities for Kent schools and academies from the EEFective Kent Project visit the project's web page or contact the project team directly (EEFectiveKentProject@kent.gov.uk).

Charges:
Each local provider determines their own charges to schools depending on local circumstances. The charge for 2022/23 for a new 1st Class@Number teaching assistant, with their Link Teacher, will be in the region of £990.

How do I Access the Training?
Schools can access 1st Class@Number from local ECC providers. Click here to find your nearest provider.

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New Training

- 11/ 12th July
- Jason.horne@theeducationpeople.org

- From 6th November 2nd Cohort