

Catch-Up Numeracy Programmes – Cambourne Village College

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Effectiveness of catch-up numeracy programmes 2021/22

From September 2021, we continued to utilise our mathematics specialist teaching assistant with an aim to withdraw pupils from maths lessons for targeted intervention. In addition, specialist teachers of mathematics were used to withdraw pupils from registration period to focus on improving numeracy skills and addressing gaps in knowledge in smaller, more targeted groups. A total of 32 KS3 students were selected for numeracy interventions during the Autumn Term of 2021. This cohort was not affected by whole-country lockdowns (covid-19 pandemic) but large amounts of absence (both student and teacher isolations) continued to impact these interventions and, as such, make it challenging to evaluate their effectiveness fully. Moreover, this cohort did not sit physical KS2 examinations and, as such, their “KS2 Test Result” came from teacher assessed grades.

Mathematics interventions 2022/23

During the academic year 2022/23, pupils were selected for numeracy interventions based on their KS2 SATs, their baseline test in Year 7 and CAT tests when they start their journey at Cambourne Village College, information given to us from their primary school and a baseline assessment during Maths lessons. The overwhelming majority of these pupils have made good progress to their fluency and numeracy skills during the year.

In Year 7, 42 pupils began in September 2022 with below the expected standard in mathematics. This was circa 17% of the whole Year 7 cohort at the start of September 2022. This cohort saw the re-introduction of KS2 SATs assessments which had previously been removed due to the covid-19 pandemic. After reviewing KS2 SATs assessments, teacher assessments and internal Maths baseline assessments, 25 students had an internal Maths level of 2.5 or below, placing them in the “Emerging” band in September 2022. 27 students had an internal Maths level of 3.0 or 3.5, placing them in the “Developing” band. These students benefited throughout the year by being taught in smaller ‘nurture-style’ classes as well as many of them accessing the further interventions detailed below.

At the end of each term, the students sat progress assessments. We expect all students to make good progress over the course of a normal year; this reflects an increase of 1.0 Maths level. The table below shows the percentages of Year 7 students making expected or more than expected progress and those achieving less than expected progress. Whilst the progress of neither our “Emerging” or “Developing” students have been as pleasing as we would like, it is mostly in-line with the rest of the cohort and the percentages of these students “catching-up” to the expected end of KS2 standard has improved from previous years with 15, out of the original 42, students finishing Year 7 having achieved the expected standard. However, this does only represent 36% of students and we must consider some of the factors affecting progress this year. During the 2022-23 academic year, covid isolations (for both staff and students) continued to impact attendance and placed restrictions on what could be feasibly offered by the school. Moreover, there were some students from the “Developing/Emerging” groups who refused to attend any interventions offered. The interventions that were put in place did help to stop these students from falling even further behind. Students making less than expected progress, across the whole cohort, will be reviewed for interventions for 2023/24.

	Emerging students		Developing students		Rest of Year 7 cohort	
	Number	%	Number	%	Number	%
Excellent progress (more than 1.0 levels)	3	13	4	15	32	15
Good progress (1.0 levels)	5	22	9	35	77	35
Below expected progress (less than 1.0 levels)	15	65	13	50	109	50
<i>Total</i>	23	100%	26	100%	218	100%
<i>Left during the year</i>	2		1		5	
<i>Joined during the year</i>	0		4		9	

During 2022-23, a total of 53 pupils from across Key Stage 3 were selected for various mathematics interventions throughout the course of the year. The interventions accessed by students included breakfast numeracy, form time maths and targeted maths support. More information on these interventions can be found below. In general, feedback from these groups was positive and students felt as though they were able to ask questions where extra support was needed. Many of these students do not have the confidence to ask questions on a whole class level and so this smaller-group opportunity was beneficial to their confidence.

Despite a difficult year, the range of interventions that we have employed to improve students' numeracy skills, address gaps in their knowledge and increase mathematical attainment have shown to impact students' progress and we intend to continue using these strategies next year, during 2023-24, with pupils who do not meet their expected standard for maths by the end of Key Stage 2; these strategies are listed below.

Breakfast Numeracy

This programme is offered to pupils whose KS2 SATs data is below the expected standard and those students where we feel their numeracy skills are hindering their progress in mathematics lessons. Students meet once a week, in small groups, working with a maths specialist teaching assistant. The programme focusses on understanding and expanding mathematical vocabulary, concrete times tables, and number bonds coinciding with topics currently being covered in Year 9 mainstream maths lessons to aid understanding and boost confidence. The programme runs throughout the whole year, with reviews each half term. Students are invited to attend via a letter home and rotated as and when they are considered to have made expected progress.

In addition to the above, we also subscribe to "Times Table Rock Stars" which is available to all students on roll. This specifically targets fluency in times tables and students have access to their account both in school and at home. Moreover, this academic year has seen the introduction of Sparx maths to all year groups. This online platform uses personalisation algorithms to ensure all students are suitable challenged and supported on their homework. It promotes independence in mathematics, written worked solutions and offers fundamental consolidation skills based on topics that individual student has struggled with previously.

Form-Time Maths

This programme is offered to pupils whose progress is significantly below the expected (less than 1.0 Maths level). Students meet weekly during their timetabled registration period to work on mathematical competency skills with a maths teacher. Groups range in size but never exceed 5

students per teacher. The programme runs throughout the whole year, with reviews each half term. Students are invited to attend via a letter home and rotated as and when they are considered to have made expected progress.

Additional Maths

This programme is offered to pupils who have dropped mainstream Spanish lessons (KS3). This decision is heavily discussed with SENCo, English Department and HOYs since the student will then not study a language for their time at Cambourne Village College. Students' timetables are physically altered to include lessons in The Centre where students work on both literacy and numeracy. Students work on developing their mathematical vocabulary, becoming both fluent and confident in their use of times tables as well as their use of written methods for the four mathematical operations. This programme is run for the duration of a student's time at Cambourne Village College.

Maths Targeted Intervention (Maths Teacher Led)

This programme is offered to students whom we feel are not making the expected level of progress. This programme is offered as part of the government funded catch-up scheme. As a department, we had previously identified that the Year 8 cohort, in addition to the Year 10 cohort, had the least favourable levels of progress within them. Hence, this intervention was targeted towards Year 8 and Year 10 pupils. Throughout the year, a total of six streams of catch-up intervention took place, each lasting one full term. Each stream consisted of around 12 hours of targeted intervention (given weekly after school) with a departmental maths teacher. Students were selected where their progress was significantly below the expected (less than 1.0 maths level) and allocated a stream. There were no more than 5 pupils in each stream. The aim of this intervention is to work alongside the current classwork but allow students to ask more questions and gain added support to enhance their mathematical journey.

General Intervention (Intervention Teacher Led)

This programme is run on a school level. Students attend timetabled intervention lessons instead of attending mainstream classes. The students selected for this form of intervention vary and time is spent on both maths and English. The intervention teachers work closely with the Progress Coordinator in the mathematics department to ensure lessons, resources and teaching is uniform for students. This programme consolidates key skills and competencies essential for success in mainstream maths lessons. In the current situation, much time is used to review work covered during periods of remote learning due to the Covid-19 pandemic or vast amounts of pupil absence within the mainstream setting.