

Secondary Cohort (11-16): Lead Teacher Guide

2024-25

This guide has been created for the member of staff in school that is the main point of contact for the Observatory for Mathematical Education's Cohort Study.

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1. Introduction

We want to begin this guide by thanking you for being a research partner of the Observatory. We are excited to be starting this partnership with you; we hope you are excited to contribute to research that will inform the future of maths education in England.

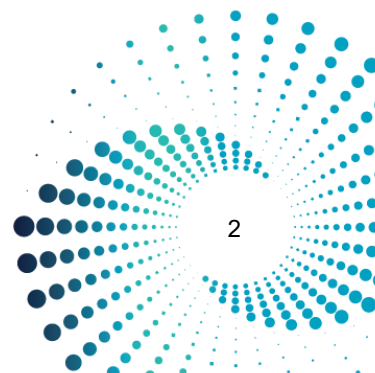
“Maths departments are dynamic educational environments supporting the mathematics learning of a diverse range of young people. Mathematics teachers work hard to help learners gain essential mathematical knowledge which is crucial to exam success, employment and everyday life. There are myriad pedagogic and organisational choices that schools make in regard to their mathematics teaching, but it can be difficult to make informed choices and predict the short and longer term impact of decisions. Research evidence can be invaluable in revealing approaches that are likely to be more or less effective. However, large scale evidence captured over years of schooling is needed to be confident of likely effectiveness. Moreover, this evidence needs to be broad to include the large number of variables that exist in the complex world of education. This is why it is such a privilege to be working with schools across England on the secondary cohort study – one of the largest and most complex studies of its kind. To teachers in research partner schools, I say ‘thank you’ for your contribution, not just from me but on behalf of the generations of future teachers, young people, families and communities which will benefit from the knowledge about mathematics education that you help to generate.”

Dr Catherine Gripton, Cohort Studies Lead for the Observatory for Mathematical Education and Associate Professor at the University of Nottingham

This guide has been created for the lead teacher overseeing your school’s participation in the Observatory’s secondary cohort study for the next five years. It contains the following information:

- An overview of the study, its purpose and aims.
- A summary and detailed breakdown of activity in the first year of the study (2024-25).
- The responsibilities of the research partner school in the first year of the study.
- Contact details should you have any questions or concerns.

We recommend you read through this document at the beginning of the year and then refer to key sections as needed.



2. Study Overview

Starting in 2024-25, the Observatory is following three cohorts of pupils in schools across England.

- Primary cohort: Pupils in Reception in 2024-25. This cohort will be followed until the end of Year 6.
- Secondary cohort: Students in Year 7 in 2024-25. This cohort will be followed until the end of Year 11 or 13 (for schools with sixth forms).
- A-level cohort: Students in Year 12 in secondary schools and sixth form colleges 2024-25. This cohort will be followed until the end of Year 13.

The primary and secondary cohorts will form part of the largest ever longitudinal study. Over 7 years, the Observatory will build a picture of maths education in England through detailed exploration of a number of areas of interest, including students' attainment, attitudes, experiences and progression.

2.2 Purpose

We all know the importance of mathematics education for student's future lives and employment. Within the complexities of the education system in England, there are a large number of factors contributing to a student's mathematics education. For this study, the Observatory is taking a longitudinal, cohort approach: collecting data on attitudes and experiences from the same group of students over several years from a representative sample of schools across England. The data will be analysed to identify trends across different approaches, resources, school types and student groups over time.

We will build a picture of the maths education landscape from a range of viewpoints: students, teachers, department heads and parents/guardians.

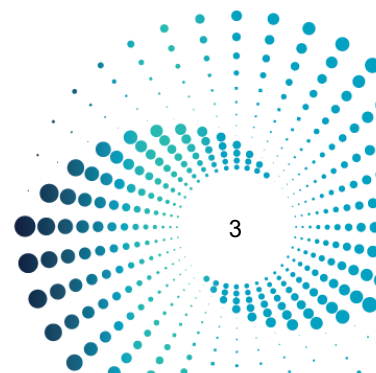
2.3 Aims

There are two broad aims to this study:

1. Gain a comprehensive understanding of the current maths education landscape in England. This means seeking to understand patterns in student's attainment, attitudes, experiences and progression in mathematics.
2. Identify how these patterns vary according to regions, schools and classrooms; and for different groups of students (ethnicity, gender, SEND, language and socio-economic status) This will provide understanding of the impact of curriculum and teaching choices which will inform maths education policy and practice in the future.

2.4 Study timeline

The study will run for 5 years in 11-16 schools and follow one cohort of students from Year 7 to Year 11. Each year will follow a similar sequence of activities.

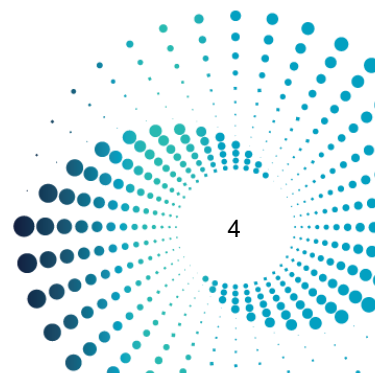


3. Year 7: September 2024 – August 2025

This section provides an overview and a detailed breakdown of the activities in the first year of the study. Future years will follow a similar format.

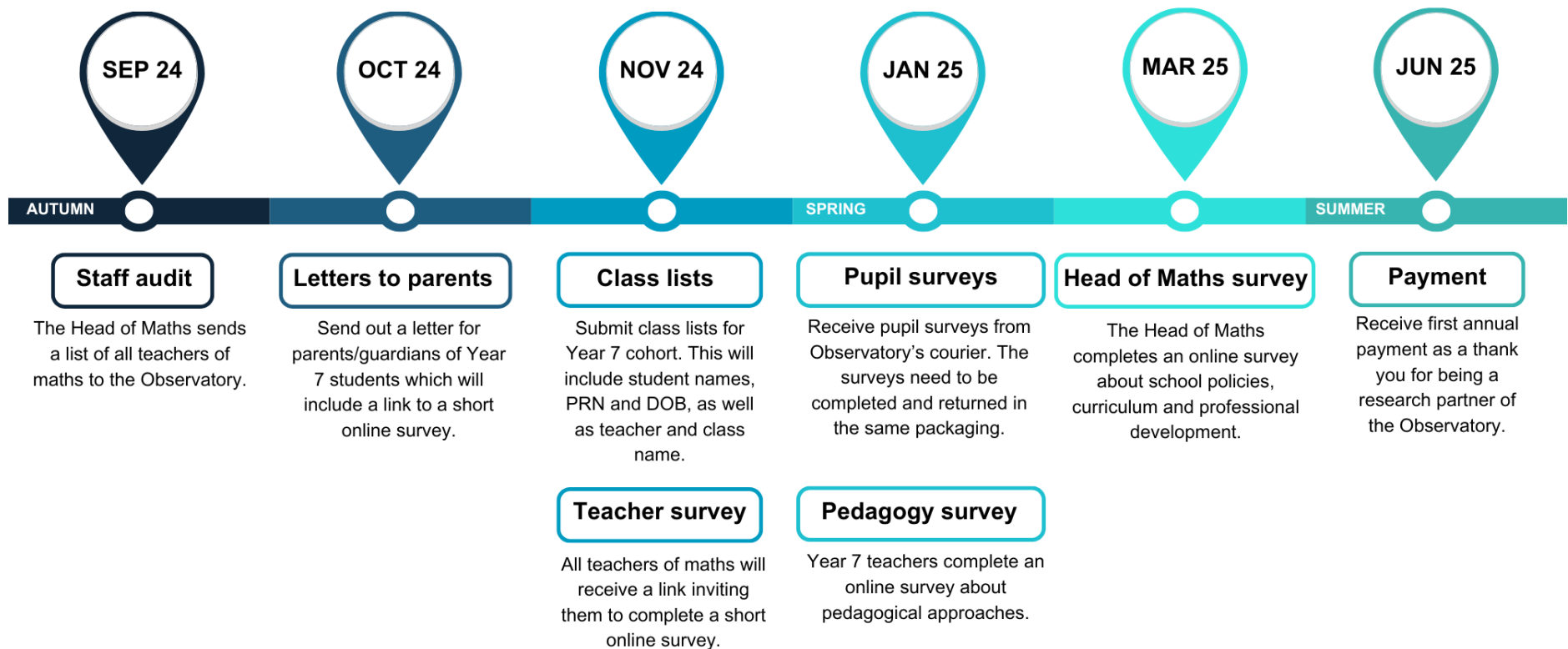
3.1 Year 7 overview

On the next page you will find a timeline outlining the key activities taking place in 2024-25. Please ensure a copy of this is readily available to consult throughout the year. You can access a printable poster (PDF) of this timeline on the Observatory website.



SECONDARY COHORT STUDY TIMELINE

Year 7, 2024-25



3.2 Year 7 annual planner 2024-25

Month	Activity	Who	What
September 2024	Staff audit	Head of Maths	Send the names and school email addresses of all teachers of maths at your school to the Observatory. Note: this includes teachers of any age group and class size.
October 2024	Letters to parents/guardians	Lead teacher and school office	Send a letter from the Observatory to the parent/guardian of all Year 7 students. The letter includes instructions on how to withdraw their child from the study (an online form collected by the Observatory). There is also a link to a parent/guardian survey contained within the letter.
November 2024	Class lists	Lead teacher	Send class lists for all Year 7 classes to the Observatory. Each class list contains: <ul style="list-style-type: none"> • Name of teacher • Name of class • Name of pupil • Pupil date of birth • Unique pupil number¹ The request for class lists will include a list of pupils who should not be included (those that have been withdrawn from the study by their parents/guardian).
November 2024	Teacher survey	All teachers of maths at your school	Teachers of maths listed in the staff audit will be sent a link by the Observatory to their school email inviting them to complete a 10-minute online survey. The survey consists of mostly multiple-choice questions and asks about their role, their teaching, their career and their professional development. As the lead teacher, we ask that you encourage your staff to take part in the survey.
January 2025	Pupil surveys	School and students	Your school will receive a package by courier containing the paper pupil surveys, instructions and return packaging. You have two weeks to complete and return the surveys. ²

¹ The unique pupil number (UPN) that each child is given by the Department for Education when the child starts school.

² If you are delayed, for any reason, in completing the pupil surveys, please contact the Observatory.

Month	Activity	Who	What
January 2025	Pedagogy survey	Year 7 teachers	This survey is for Year 7 teachers only . They will be sent a link to their school email from the Observatory to complete an online survey about the pedagogical approach(es) they use in their teaching.
March 2025	Head of Maths survey	Head of Maths	The Head of Maths will receive a link by email to complete an online survey about school policies, curriculum and professional development.
June 2025	Payment	Observatory	Your school receives a £1000 payment by bank transfer from the Observatory. This payment is to thank you for being a research partner.

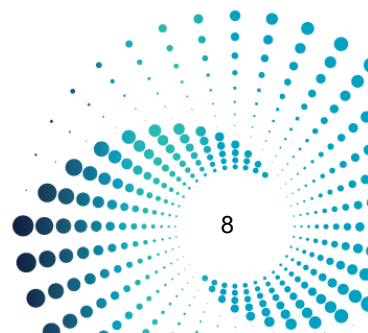
3.3 Administering the pupil surveys

When the Observatory sends your school the Y7 pupil surveys, the survey papers will come in class packs (plastic envelopes); one for each class. Several weeks before this, we will ask you for Y7 maths class lists so that we know which students will need a survey. This means we can send the right number of surveys for each class, and we can print the name of participating students on their own survey.

We will use Wonde to request the data we need for the class lists (name of teacher, name of class, name of student, student date of birth, student UPN). Your school's Wonde administrator will receive a request directly through Wonde in November 2024 for the Y7 class lists. You may want to speak to your Wonde administrator in advance to inform them about this.

If your school does not have a Wonde account, please [contact the Observatory](#) and we will arrange an alternative means of secure data transfer.

The surveys should be completed in one maths lesson so you will need to identify which lesson this will be in advance. Whilst some students will take the entire lesson to complete their surveys, most will take 10-15 minutes. The completed surveys should be returned to the envelope they arrived in, the envelopes sealed, and all class envelopes placed in the returns box ready for courier collection.



4. Observatory contact details

We want your involvement in our research study to be as straightforward as possible. We know there are many demands placed on schools and on your time as staff. If you have any questions or concerns, at any point during the study, please do not hesitate to contact our friendly team using the below contact details.

Observatory for Mathematical Education

Telephone: 0115 9514426

Email: mathsobservatory@nottingham.ac.uk

Calls and emails will be replied to during our working hours Monday–Friday, 8.30am – 4.30pm.

4.1 Meet the operations team

Meet the team that will be answering your emails and phone calls.



Dawn (she/her)



Al (he/him)



Emily (she/her)