

What will happen if my Year 4 classes take part in this research project?

Your Year 4 classes will be randomly assigned to either one of the three cohorts: **Baseline A**, **Baseline B** and **Intervention**. Details of each cohort can be found below.

	Baseline A Cohort <i>(‘Business-as-usual’ Group)</i>	Baseline B Cohort <i>(Maths Story Reading Enhancement Group)</i>	Intervention Cohort <i>(Maths Story Writing Enhancement Group)</i>
Multiplication teaching activities over a three-week period. (If possible, from late January to mid-February 2020)	<p>'Business-as-usual' (e.g. use of worksheets, scheme of works, textbooks, games, etc.)</p> <p>Any form of 'storytelling' as part of mathematics teaching during this period in this cohort should be avoided.</p>	<p>As per Baseline A Cohort, but the Year 4 teachers will also be reading some mathematical story picture books about multiplication to their pupils 2-3 times a week (for three weeks) as part of their mathematics lessons.</p> <p>(Electronic access to the books will be supplied by the research project.)</p>	<p>As per Baseline B, but the Year 4 teachers will also be asking their pupils to independently create three different mini multiplication-related story picture books over the intervention period (again as part of their mathematics lessons), using a suggested story template. This will include one literary genre per week: a fairy tale, a myth or a legend in Week 1, an adventure in Week 2, and a horror or a thriller story in Week 3.</p> <p>With your permission, the works of the children (i.e. the story picture books) will be collected and analysed by the research team, and returned to them once the analysis is done.</p>
Pre-test, Post-test and Delayed post-test	Yes	Yes	Yes
Age-appropriate pre-test, post-test and delayed post-test will be conducted to capture any differences in children’s attitudes towards mathematics and their learning progress in multiplication. (Printed			

<p>copies of the tests will be provided by the research project.)</p> <p>Pre-test will be administered right before the 3-week period begins. Post-test will be administered right after the 3-week period ends. Delayed post-test will be administered 1-2 months after the 3-week period ends.</p> <p>Each test has only 15 survey questions exploring children's attitudes towards learning mathematics, and 14 mathematics problems for them to solve.</p> <p>The children will be given 50 minutes to try to solve as many questions as they can.</p> <p>The test will be administered by a member of the research team (with a DBS check) at a time most convenient for the school.</p>			
<p>Interviews with some students and class teachers</p> <p>Some of the students and their teachers might also be invited to be interviewed to explore their perceptions of learning multiplication through either reading or creating mathematical story picture books.</p>	No	Yes	Yes

If invited, the interview will be conducted at your school at a time most convenient for the school.

The interview with each child will last only about 15 minutes, and the interview with each teacher will last about 30 minutes.

With the interviewees' permission, the interviews will be audio-recorded.