

## Appendix B

### Proposal from Slough Primary Headteachers for allocation of Cambridge Education centrally retained 2014/15 Schools Improvement Budget underspend

# Slough Mathematics Project

## Improving teacher subject knowledge and raising children's attainment.

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### Background

- In 2015 the percentage of pupils attaining L4 in Maths in Slough was 84%, compared to a national percentage of 87%.
- 15 mainstream schools fell below the national percentage with 12 above.
- Those schools falling below are a mixture of LA schools and Academies
- The percentage of pupils in Slough making expected progress in maths was also below national (86% cf 88%)
- Attainment in maths in Slough is a deteriorating situation
- Slough has been below the national percentage for % of pupils attaining L4+ for the last four years
- Slough is currently ranked 116th out of 152 LA's across the country.
- In 2011 Slough was ranked 72nd.

Slough Primary Schools are working hard to raise attainment in maths but a number of factors are making this a very real challenge:

- a new curriculum that raises expectations for each year group and creates gaps in teacher subject knowledge
- existing schemes of work and programmes out of step with new curriculum
- removal of levels, resulting in a variety of approaches across Slough and making it difficult to predict outcomes with any certainty
- a lack of clarity about 2016 tests and measures
- an interim framework for assessment that is inflexible in its approach – all statements have to be met for children to be assessed as meeting expectations
- recruitment issues – agency and overseas trained teachers needing rapid induction
- language issues related to the understanding of mathematical problems for pupils speaking English as second language or with limited language acquisition

## Summary of project

This proposal is for a funded project that will focus on how to teach mathematics effectively in the Slough context with an emphasis on pupils acquiring mastery.

The project will focus on Key Stage 2 (Years 5 and 6) and will provide the following:

- *Face to face training in mastery in mathematics and the Rising Stars Mathematics programme for participating schools (Rising Stars and NCETM)*
- *Provision of a scheme of work, online supporting professional development, text books, practice material and teaching resources for all teachers and children in participating schools (Rising Stars Mathematics)*
- *Assessment tests for baseline and summative assessment. (PUMA standardised assessments)*
- *Project management (Slough Learning Partnership and Rising Stars)*
- *Evaluation paper after 12 months (TBC)*

## CPD

The training/CPD sessions will be structured to best meet the needs of participating schools but would likely cover

- Introduction to Rising Stars Mathematics
- Overview of programme structure and components
- The concept-pictorial-abstract approach (CPA)
- Teaching key National Curriculum objectives using CPA
- Teaching a unit from Rising Stars Mathematics
- The assessment tests and tasks, data recording.
- Introduction to video tutorials
- Follow up sessions including sharing experiences and best practice

## Involvement

Schools would be identified by Cambridge Education and would likely be those schools where progress and/ or attainment were less than national averages in 2015.

Slough Learning Partnership would provide project management in conjunction with Rising Stars.

## Timescale

Schools to be identified and invited to participate before Christmas, with an initial meeting in early January. The project is set to last a year with evaluation in Spring 2017. This is not a quick fix project but is designed to have a long and lasting impact on pupil understanding and ability to use mathematical concepts to solve problems in a variety of contexts. This approach should have a positive impact on secondary schools in that children will have more secure mathematical knowledge and skills that they can apply with confidence.

## **Evaluation**

Following baseline assessments, Rising Stars will agree expected outcomes with individual schools and will lead on an evaluation paper that can be brought to Schools Forum in due course.

In conjunction with the project currently underway with Rising Stars in five schools to raise attainment in current Y6 by May 2016 it is anticipated that achievement in maths in Slough will rise above the national average in 2016 and beyond.

## **Cost**

- £10,000 per participating school for one year (Year 5 and Year 6). Minimum 5 schools.