Little Paxton Primary School – Report of Governor Visit

Date:
24th January 2018

Focus of Visit:
To attend a Maths Mastery Showcase session

People present:
Governors – P Conway, N Donoghue and J Purser
Pupils from Y2 and Y4
School staff – D Hawkes (HT and Maths Hub Lead for Cambridgeshire) and J Watts (DHT and Maths Mastery specialist)
Maths Hub staff
Staff from other schools – approximately 70 teachers from primary and secondary schools across Cambridgeshire

Purpose of visit:
To see firsthand the potential impact of Maths Mastery

Background:
J Watts undertook Maths Mastery training as part of the second cohort of teachers to do this. D Hawkes became the Maths Hub Lead for Cambridgeshire in 2016. Several aspects of Maths Mastery have been trialled at Little Paxton and the approach is being followed in Y1. Parts of this approach are used in other year groups.

J Watts visited Shanghai in September 2017 alongside other Maths Mastery teachers. She was able to visit 2 schools in Shanghai and see for herself the approach to the teaching of maths as well education more generally in China.

Over the last 2 weeks 2 teachers from China have been at Little Paxton school and have delivered daily maths lessons to one of our Y2 and one of our Y4 classes. This has culminated in 3 days of "showcase" lessons to which all schools in Cambridgeshire were invited to send up to 3 teachers to observe these lessons.

It was explained to the teachers visiting Little Paxton to observe the showcase lessons that in China children don't begin formal schooling until they are 7 years old, although they will attend a kindergarten before this age. Maths is taught by specialist maths teachers right from when children start school (other subjects are also taught be specialist staff). Maths lessons are very structured with schools in a particular district all following the same textbooks. The lessons follow a gradual small step approach to teaching each topic.

What was seen during the visit:
There were 2 showcase lessons each was 35 minutes long (the typical length of a lesson in China). Both were lessons about fractions; the first was to a Y2 class, the second to a Y4 class. The Y2 class were being taught about unit fractions, the Y4 class were adding fractions with the same denominator. Both lessons were to the whole class and they were mixed ability classes.

Both lessons began with a brief recap of what had been covered in previous lessons. During the lessons children were encouraged to use correct mathematical language (numerator, denominator etc) and also to use complete sentences. A series of slides led children through the concepts the

teacher wanted them to learn. Many slides used pictures to aid understanding and physical apparatus (counters, rulers etc) was available to support the children's learning. Children were asked questions individually as well as invited to discuss in groups. Much work was done on white boards. Key concepts were repeated several times in the course of a lesson (eg divide into 2 equal parts to get one half) and children were asked to repeat these out loud as a class. The same information was also presented to children in different ways. Children were expected to keep a clear focus on what was being taught at all times. At the end of the lesson children were asked to explain what they had learned.

Visiting staff had been given a feedback sheet on which the intended outcomes for the morning were stated as:

- To observe Shanghai style mastery lessons
- To develop an understanding of some features of teaching for mastery in maths
- To reflect on possible changes to their own teaching practice when teaching maths
- To have an opportunity to ask questions about mastery.

After the showcase lessons there was a chance to ask the Chinese teachers about the lessons observed. There were a number of questions. Of most concern were:

- How is there enough written work recorded to be able to evidence learning and progression?
- As this approach relies on whole class teaching where is the differentiation? What is done to support the less able and, more particularly, stretch the more able?

In answer to the first question the Chinese teachers explained that children are set homework every day which they must bring back completed the following day. The teachers reported that parents in China are very supportive and ensure that the children complete the assignments.

In answer to the second it was aid that those children who had grasped the concepts faster would be asked to explain to those who were struggling which would help deepen their understanding. Teachers would offer to assist pupils after class (one was heard to do just this during the showcase lesson) and parents might also arrange for private tuition.

Findings:

Clearly much of the maths Mastery approach can be very successful especially if it is used from the beginning. As identified by several teaching staff, because the focus is on getting all children to fully grasp fundamental principles before the whole class moves on, there may be restricted scope for stretching the more able unless this is carefully planned for.

Staff reported that it was a valuable experience especially the opportunity to talk with colleagues from other schools.

The children have thoroughly enjoyed this exciting opportunity to meet and be taught by teachers from another country that is so different from our own. Their behaviour during the showcase lessons was exemplary – they are a credit to themselves, their parents and the school.

Recommendations:

The event did much to raise the profile of the school and was an opportunity for Little Paxton to support the development of Maths Mastery throughout Cambridgeshire. As a school we should continue to invest in the Maths mastery approach both for the benefit of our own pupils but also to support other schools to so too. This needs to be done in a carefully considered way so as not to lose the good practice already happening in our classrooms.