

# Lessons from Shanghai

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# England-Shanghai Mathematics Teacher Exchange Project

- ▶ The project was triggered by Shanghai students outstanding performance in PISA tests in 2009 and 2012.
- ▶ The first primary exchange took place in 2014-15, followed by a secondary exchange in 2015-16.
- ▶ The aims are that throughout the project, successful experiences in mathematics teaching will be shared by both sides.
- ▶ The project will play a significant role in promoting professional development of school teachers and boosting international education exchange between the UK and China.

# Phase 1 - UK teachers in Shanghai

- ▶ 70 Primary Maths Specialists from across the UK visited Shanghai in November 2016
- ▶ UK teachers spent two weeks in schools observing expert maths teaching



# Significant features of maths teaching in Shanghai

- ▶ Teachers' subject knowledge and research is evident in their lesson design and reflection
- ▶ Expertly designed textbooks are used as a tool to identify progression rather than to provide pre-planned lessons
- ▶ Connections are not left to chance (or simply 'remembering')  
- the curriculum progression draws out the connections and in lessons, teachers explicitly draw children's attention to the connections
- ▶ Teacher collaboration in lesson design and analysis → shared ownership and professional development

# Significant features of maths teaching in Shanghai

- ▶ Carefully crafted steps of progression with skilful use of variation in every lesson → deep understanding
- ▶ No deviation from the main point of the lesson - each lesson has a tight focus and there is never any distraction from the intended learning
- ▶ Concrete and pictorial representations are used to reveal the structure of the mathematical concept and aid understanding, not as a crutch to do the maths.
- ▶ Greater emphasis is put on children really understanding the mathematics - they don't shy away from mathematical language and responses are always verbalised using full sentences.

# Phase 2 - Shanghai teachers in UK

- ▶ November 2016 and January 2017
- ▶ Opportunity for primary teachers to experience Shanghai teaching first-hand



## Shanghai Showcase

Come and join us at Mangotsfield C of E Primary School to watch a lesson taught by visiting Chinese teachers, Melody and Lin, and take part in a follow up Teacher Research Group discussion

**Date:**

Wednesday 18<sup>th</sup> January  
Y2 lesson on multiplication and division  
Taught by Melody

*or*

Thursday 19<sup>th</sup> January  
Y6 lesson on fractions  
Taught by Lin

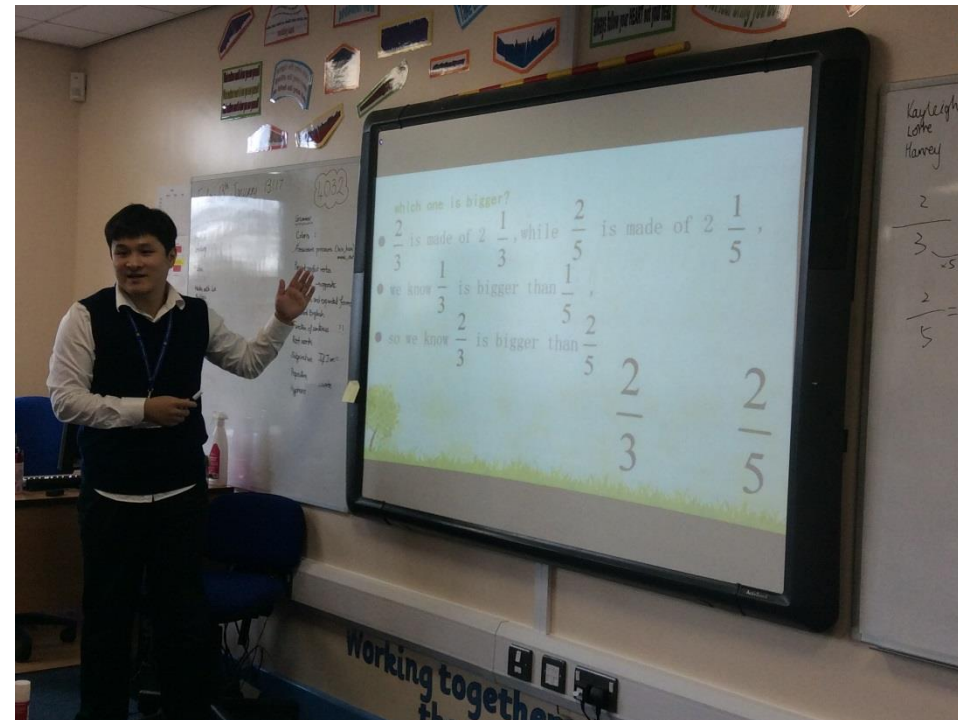
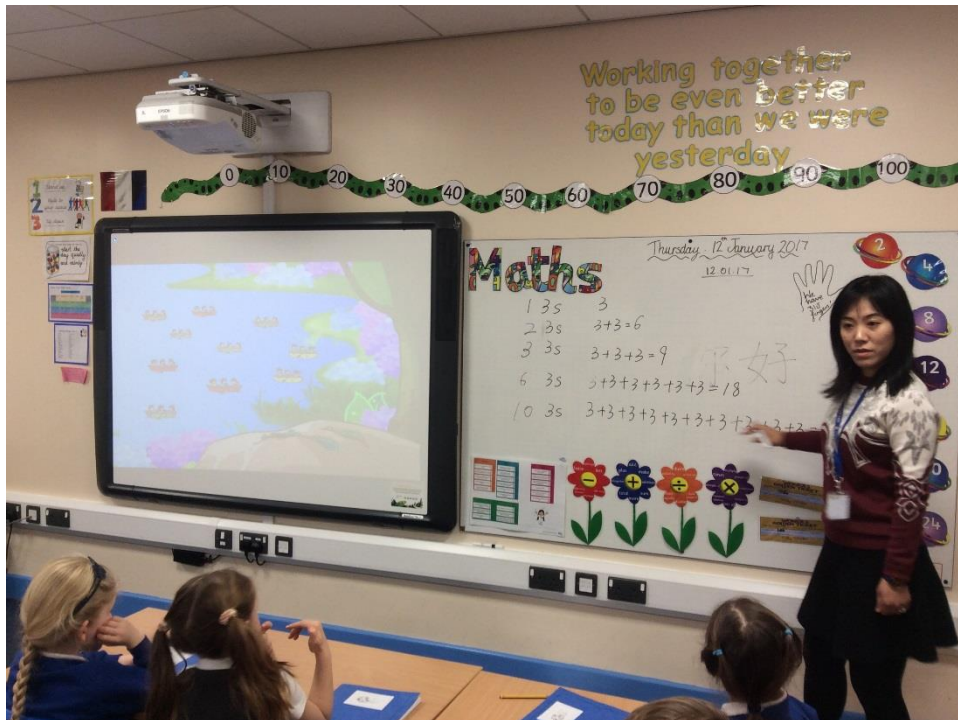
There are 100 spaces available for each showcase lesson.

Participation in this event is free of charge and we expect the places to go quickly.

To reserve a place, please email  
[BooleanMathsHub@clf.cabot.ac.uk](mailto:BooleanMathsHub@clf.cabot.ac.uk)

# Phase 2 - Shanghai teachers in UK

- ▶ Mangotsfield CE Primary School, Bristol
- ▶ Melody is teaching multiplication in Year 2
- ▶ Lin is teaching fractions in Year 6



# Reflections from teachers

*“The pace seems so slow and purposeful, yet the learning progresses so quickly resulting in a much deeper understanding of the mathematics.”*

*“Every representation, and sometimes meaningful real-life contexts, are carefully selected to reveal or draw attention to the structure of the mathematics.”*

*“The repetition of key sentences forces the children to use mathematical language and gives them confidence to explain their mathematical thinking independently.”*

*“Sometimes the answer is not important!”*



# Reflections from children

*“Melody showed us one picture of a play park which taught us about addition AND multiplication. We looked at this picture a lot.”*

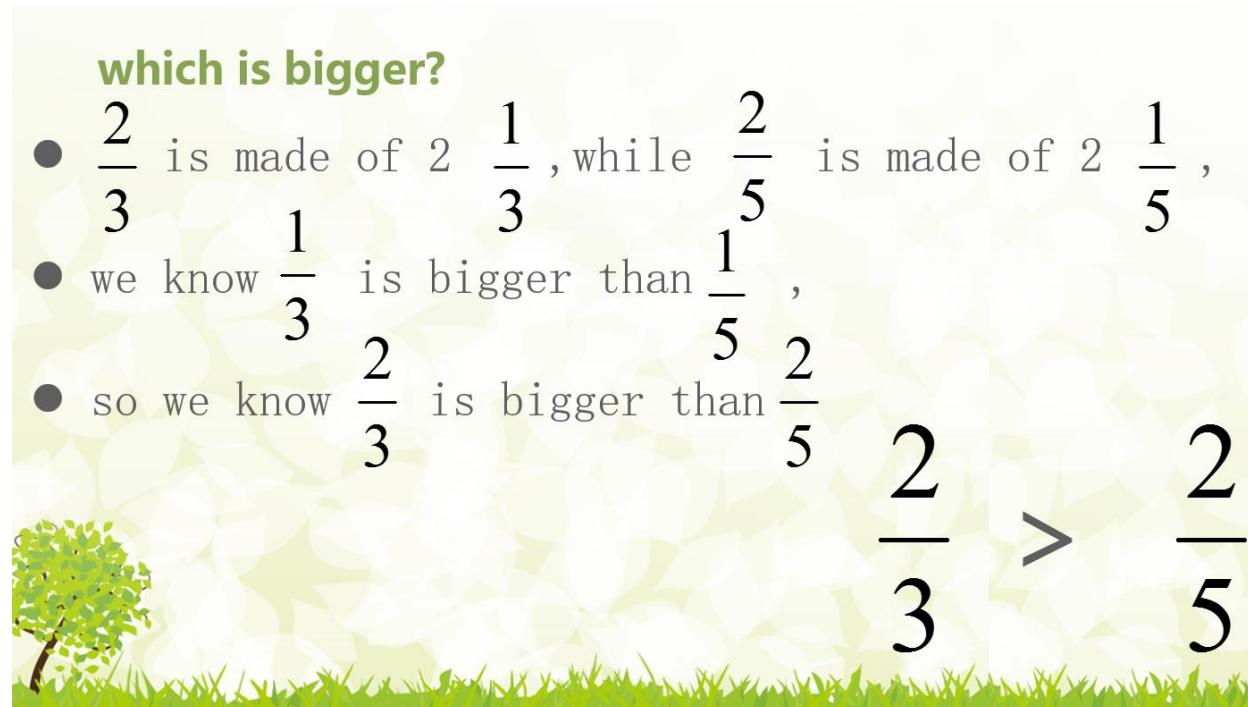


# Reflections from children

*“Lin talks more to make us really understand what we are learning about - we have to think hard to really understand.”*

**which is bigger?**

- $\frac{2}{3}$  is made of 2  $\frac{1}{3}$ , while  $\frac{2}{5}$  is made of 2  $\frac{1}{5}$ ,
- we know  $\frac{1}{3}$  is bigger than  $\frac{1}{5}$ ,
- so we know  $\frac{2}{3}$  is bigger than  $\frac{2}{5}$

$$\frac{2}{3} > \frac{2}{5}$$


*“We say sentences about maths, repeat them and use them to explain what we learn.”*

## Q & A session with Melody and Lin

*Why did you want to be involved in this exchange?*

*What did you learn from working with the English teachers in Shanghai?*

*What do you think the English teachers learned from you?*

*How are you finding teaching maths in England?*

*Is there any else would you like to say about the China-England exchange?*

# Q & A session with Melody and Lin



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## **Date:**

**Wednesday 18<sup>th</sup> January**

**Y2 lesson on multiplication and division**

**Taught by Melody**

*or*

**Thursday 19<sup>th</sup> January**

**Y6 lesson on fractions**

**Taught by Lin**

## **Time:**

**08:30 am – 11:30 am**

## **Location:**

**Mangotsfield C of E Primary School**

**Church Farm Road**

**Emersons Green**

**Bristol**

**BS16 7EY**



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Please provide:

- Your preferred date
- Your school name
- Names & email addresses of attendees (max 2 per school per day)

The showcase events are suitable for both primary and secondary colleagues.