

Mathletics and Singapore/Shanghai Maths

Mathletics supports teaching using the best from the Singapore and Shanghai maths teaching models.

Students develop a strong conceptual understanding through exposure to a variety of models and approaches.

Number sense and fluency are reinforced through repeated and varied practice.

Students develop confidence in using their maths knowledge from an early age through contextualised and applied problems.

Powerful reporting tools monitor student **concept mastery** and enable the teacher to quickly see pupil and class strengths and weaknesses.

Developing Number Sense and Fluency



Concrete-Pictorial-Abstract Modelling



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Contextualised and Applied Problems

Does Amelia have more than, less than or the same as Grahame?

Amelia: 3 counters, Grahame: 4 counters

more less same

Hint: Move the counters to help you compare.

In this magic square, the symbols add to give the numbers in the circles at the end of each row and column. Find the value of each symbol.

HINT: The same symbol is the same number.

33, 27, 41, 37, 34, 30

$\star = 9$, $\text{flower} = 16$, $\text{circle} = 12$

Pyramid Prediction

What's the point of the task?

Questions to facilitate the learning

What happens if you add 1 to each number in the bottom row?

Curriculum connections

What provides students with the opportunity to go through the reasoning process of identifying, generalising and justifying that relates to algebraic symbols or shapes could be used instead of the rule.

affording the learning

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A Variety of Conceptual Approaches

Select the equivalent fraction.

$\frac{4}{8}$

Select: $\frac{2}{5}$, $\frac{2}{4}$

Find the lengths of each strip:

Strip B is $\frac{1}{4}$ of strip A

Strip C is $\frac{1}{2}$ of strip B

Strip A: 15 cm, Strip B: 3.75 cm, Strip C: 1.875 cm

Enter the missing numerator to show equivalent fractions.

$\frac{6}{12} = \frac{2}{4}$

Hint: Highlighting the bricks in the fraction wall can help.

Concept Mastery Reporting

Teachers see mastery as it occurs

Activity Mastery	Participation	Live Mathletics	Total
The Cox's	All Results	Test Results	
Cox, Joe	28 July 2014 - 26 July 2015		
England Year 6 2014NC	11		157
Whole Numbers	10		15
Activity	Results	Attempts	
Are You Ready?	>	100%	1
Comparing Numbers	>	100%	2
Nearest Whole Number	>	100%	1
Nearest 10?	>	100%	1
Nearest 100?	>	100%	1
Nearest 1000?	>	100%	2
Numbers from Words to Digits 2	>	100%	1
Numbers from Words to Digits 3	>	100%	1
Partition and rename 3	30%		6
Place Value to Millions	>	100%	3
Student Score In Activities			
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Weaknesses	Strengths	Cox, Joe
Topics	Student	Activities
Addition & Subtraction	100%	Nearest 10? > 100%
Whole Numbers	94%	Nearest 100? > 100%
-	- %	Nearest Whole Number > 100%
-	- %	Place Value to Millions > 100%
-	- %	Nearest 1000? > 100%

Certificate Awarded	Student Usage
1, 0, 0	Sign-Ins, Time Online, Activity Points, Live Points, Connector Points
5, 1h 13min, 1,850, 192, 0	

Live Mathletics Fluency	Level	1	2	3	4	5	6	7	8	9	10
Student Average Points	36	46	-	-	-	-	-	-	-	-	-
Student Accuracy	100	96	-	-	-	-	-	-	-	-	-
Student Top Score	41	23	-	-	-	-	-	-	-	-	-
National Grade Average	23	21	20	14	7	4	4	2	1	0	0
World Grade Average	25	22	22	15	8	3	3	1	0	0	0

Mathletics