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Y7-10 Intervention

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Aims

- To identify and close the potential gaps for students entering Y7
- To consider the impact of those gaps widening as students move through KS3 into KS4
- To explore the activities included in the Year 7/10 Mentoring Intervention Materials
- To discuss the implications of running Y7/10 Mentoring

- ensure that transition from Key Stage 2 to 3 focuses as much on pupils' academic needs as it does on their pastoral needs
- create better cross-phase partnerships with primary schools to ensure that Key Stage 3 teachers build on pupils' prior knowledge, understanding and skills



Key Stage 3: the wasted years?

Her Majesty's Chief Inspector commissioned this survey to get an accurate picture of whether Key Stage 3 is providing pupils with sufficient breadth and challenge, and helping them to make the best possible start to their secondary education.

A collection of Key Stage 3 good practice case studies has been published alongside this report: www.gov.uk/government/publications/ofsted-key-stage-3-curriculum-survey-2015-8-good-practice-case-studies.

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Recommendation 1	Use assessment to build on pupils' existing knowledge and understanding	8	
Recommendation 2	Use manipulatives and representations	10	
Recommendation 3	Teach strategies for solving problems	14	
Recommendation 4	Enable pupils to develop a rich network of mathematical knowledge	16	
Recommendation 5	Develop pupils' independence and motivation	20	
Recommendation 6	Use tasks and resources to challenge and support pupils' mathematics	24	
Recommendation 7	Use structured interventions to provide additional support	28	
Recommendation 8	Support pupils to make a successful transition between primary and secondary school	30	

Potential Mathematical Gaps

The areas covered in the Y7/10 Intervention materials to date are

- Place value
- Mental calculation
- Measures
- 2D shape
- Fractions and decimals
- Times tables (FunKey times table cards)

FunKey Maths



www.funkeymaths.com

Reasoning at GCSE

7 By rounding each number to the nearest 10,

estimate the answer to $\frac{61 \times 47}{102}$

You **must** show your working.

[2 marks]

Answer _____

The importance of reasoning: Think before you calculate!

11 $270 \div 3 =$

1 mark

12 $5,400 \div 9 =$

1 mark

18 $0.1 \div 100 =$

1 mark

27 $3.9 \times 30 =$

1 mark

19

$$33,630 = 354 \times 95$$

Use this multiplication to complete the calculations below.

$$354 \times 9.5 =$$

$$3,540 \times 95 =$$

$$3,363 \div 95 =$$

2 marks

Which was the most popular wrong answer?

2 Work out $\frac{1}{4} + 0.5$

Circle your answer.

[1 mark]

0.30

0.6

0.75

0.9

What are they building on from KS2?

7

Tick the **two** numbers that are equivalent to $\frac{1}{4}$

Tick **two**.

0.25

0.75

$\frac{25}{100}$

0.5

$\frac{2}{5}$

1 mark

19

Layla wants to estimate the answer to this calculation.

$$3\frac{9}{10} - 2\frac{1}{8} + 1\frac{4}{5}$$

Tick the calculation below that is the best estimate.

Tick **one**.

$3 - 2 + 2$

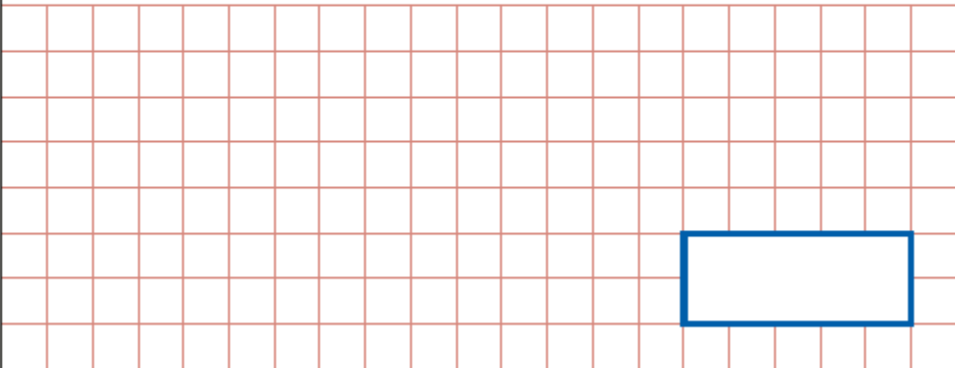
$4 - 2 + 1$

$4 - 2 + 2$

$3 - 2 + 1$

1 mark

Which is the most efficient common denominator?

17	$\frac{5}{7} + \frac{3}{21} =$ 	<input data-bbox="1464 821 1535 888" type="checkbox"/> 1 mark
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The project aims to:

- foster a positive attitude to mathematics;
- improve basic mathematical knowledge and understanding;
- enable students to engage with and make progress within the KS3 Mathematics Curriculum;

by supporting students to:

- improve fluency and recall of number facts (including times tables);
- improve fluency in mental calculation strategies;
- improve place value understanding (including decimals);
- improve understanding of fractions, decimals and %;
- improve knowledge of measures;
- improve knowledge of properties of 2D shapes.

Collect some evidence of the impact of the intervention

How we know mentoring works



Sutton Trust - EEF Teaching and Learning Toolkit

Summer 2013

Peer tutoring	£££££	★ ★ ★ ★ ★	+ 6 Months	High impact for low cost, based on extensive evidence.
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From the report:

What should I consider?

Before you implement this strategy in your learning environment, consider the following:

1. Are the activities sufficiently challenging for the tutee to benefit from the tutor's support?
2. What support will the tutor receive to ensure that the quality of peer interaction is high?
3. Training for staff and tutors are essential ingredients for success. How will you organise sufficient time to train both staff and tutors, and to identify improvements as the programme progresses?
4. Is peer tutoring being used to review or consolidate learning, or to introduce new material?
5. Four to ten week intensive blocks appear to provide maximum impact for both tutors and tutees. Can you arrange for your peer tutoring to follow this structure?

How the activities work

- They build towards a deeper understanding in each area of maths
- They are progressive so need to be done in order
- The skills learned in one activity will be applied in the next
- Activities may be supported by suggested resources
- Resources need to be understood by the mentor and the student if they are going to be effective
- Activities are often games which the mentor plays with the Y7 student
- Activities may only last for one session but may run into more than one if needed or be used in many sessions

About MEI

- Registered charity committed to improving mathematics education
- Independent UK curriculum development body
- We offer continuing professional development courses, provide specialist tuition for students and work with employers to enhance mathematical skills in the workplace
- We also pioneer the development of innovative teaching and learning resources