

Mathematical reasoning at KS3

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Aim:

- To introduce and discuss resources that can help students develop their mathematical reasoning skills
- Every student, every lesson, every day

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Background:

In autumn of 2015 each Maths Hubs offered schools in their region the chance to join a working group. The main aim of the group was to collaborate together in developing departmental practice and culture to improve teachers' confidence when addressing the reasoning component of the new secondary maths curriculum.

Now in its second year these workgroups are focusing on embedding the approaches identified into the wider practice of the departments within each school.

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‘Reasoning’- the action of thinking about something in a logical, sensible way.

ALWAYS, SOMETIMES, NEVER

Asking a student WHY? will help them to reason.

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National Curriculum

‘Reasonfollowing a line of enquiry, conjecture relationships and generalisations, and developing an argument, justification or proof using mathematical language’

‘National Curriculum © Crown copyright 2013



To use what you know to help work out what you don't know

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Reasoning tasks.

Can you try to answer the following questions.

Which task do you like and why?

How could using this task to develop reasoning?

How can this task be adapted for other topics?

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This bag of flour is enough to make exactly sponge cakes



Stimulus

Basic question?

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Questions..?

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