

Planning for questioning

Planning guide

What questions could you ask your student/s to further improve their learning?	When would you ask these questions: at the beginning of the tasks, throughout or at the end?	What questions do you currently ask that could be altered to gain deeper insights into student learning?

Question to stimulate mathematical thinking

Within the context of open-ended mathematical tasks, it is useful to group questions into four main categories.

Starter questions	Questions to stimulate thinking	Using questions to inform further teaching	Final discussion questions
<p>How could you sort these.....?</p> <p>How many ways can you find to?</p> <p>What happens when we?</p> <p>What can be made from...?</p> <p>How many different can be found?</p>	<p>What is the same?</p> <p>What is different?</p> <p>Can you group these in some way?</p> <p>Can you see a pattern?</p> <p>How can this pattern help you find an answer?</p> <p>What do think comes next? Why?</p> <p>Is there a way to record what you've found that might help us see more patterns?</p> <p>What would happen if...?</p>	<p>What have you discovered?</p> <p>How did you find that out?</p> <p>Why do you think that?</p> <p>What made you decide to do it that way?</p>	<p>Who has the same answer/ pattern/ grouping as this?</p> <p>Who has a different solution?</p> <p>Are everybody's results the same? Why/why not?</p> <p>Have we found all the possibilities? How do we know? Have you thought of another way this could be done?</p> <p>Do you think we have found the best solution?</p>

Reference

'Using Questioning to Stimulate Mathematical Thinking' article by Jenni Way. Published February 2011, Accessed <https://nrich.maths.org/2473>