

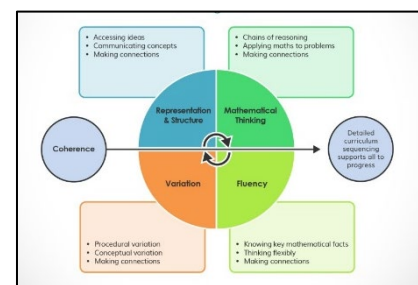
Mathematics Feedback Prompts

Please refer to the Mathematics section of Birmingham City University's Subject Specific Development Journal for specific details of what the Associate Teacher has learned prior to their school-based training.

Curriculum Frameworks: Reference should be made to the current curriculum framework for KS1, KS2 and EYFS. Reference should be made to the three aims of the National Curriculum – **fluency, reasoning and problem solving**

Mathematics Subject Knowledge: Associate Teachers should demonstrate accurate subject knowledge in their planning and teaching.

The following prompts are designed to support in giving subject-specific feedback and are informed by the 'Five Big Ideas': [Five Big Ideas in Teaching for Mastery | NCETM](#)



Key Idea:	What to look for
Coherence	➤ Is this lesson part of a sequence that builds on prior learning and plans for progression? ➤ Does the lesson break down tricky learning into manageable steps? ➤ Do the steps enable all pupils to access the learning? Do they need to be adapted? ➤ How is challenge provided?
Representation and Structure	➤ Are representations used to support understanding of the mathematical structure? ➤ Are concrete and pictorial representations used to scaffold the learning? To support individual pupils as part of adaptive teaching? ➤ Are connections made between the language, manipulatives, images and symbols?
Mathematical Thinking	➤ Are pupils actively engaged in mathematical thinking in all lessons, communicating their ideas using precise mathematical language? ➤ Is correct technical mathematic vocabulary along with key phrases and stem sentences modelled and reinforce while 'thinking aloud'? ➤ Are there opportunities to looking for patterns and relationships, making connections, conjecturing, reasoning, and generalising? ➤ Is questioning used effectively to promote mathematical discussion and develop mathematical understanding? (E.g. How do you know? prove it, convince me)
Fluency	➤ Are there opportunities for quick, efficient and accurate recall of key facts and procedures? calculation strategies, number bonds, times tables. ➤ Are facts and procedures appropriate pitch and challenge? ➤ Are there opportunities for pupils to share, compare and contrast strategies and reflect on flexible and efficient strategy use?
Variation	➤ Are examples (and non-examples) used to help pupils understand the essential features of concepts? ➤ Are questions and exercises carefully ordered to help pupils make connections and to expose the mathematical structure? ➤ Were misconceptions identified or anticipated? Are tasks / questions designed to draw attention to misconceptions?

Target Setting: At least one subject specific target should be set following an observation. This should include **what** is the next step (to support Associate Teacher progress) **why** is this important (impact on pupil progress) and **how** will this be achieved (what actions are needed?)

E.g. To use concrete resources for column addition to ensure secure procedural knowledge and understanding by modelling calculation methods using concrete resources and provide opportunities for pupil to use them alongside the abstract.

Business Ethics

Business Ethics and the Business Case for Sustainability

Business Ethics and the Business Case for Sustainability

Business Ethics and the Business Case for Sustainability

Business Ethics and the Business Case for Sustainability

Business Ethics and the Business Case for Sustainability

Business Ethics and the Business Case for Sustainability

Business Ethics and the Business Case for Sustainability

Business Ethics and the Business Case for Sustainability

Business Ethics and the Business Case for Sustainability

Business Ethics and the Business Case for Sustainability

Business Ethics and the Business Case for Sustainability

Business Ethics and the Business Case for Sustainability

Business Ethics and the Business Case for Sustainability

Business Ethics and the Business Case for Sustainability

Business Ethics and the Business Case for Sustainability