Standard I
Element C

Level 3 Practices
The Teacher:

7. Anticipates student misconceptions related to learning and addresses those misconceptions during instruction

- Uses scaffolding techniques to breakdown concepts and uncover the misconception
- Plans for questions to address potential misconceptions
- Notes misconceptions and identifies how and when they will be addressed: same day or in later lessons depending on content.
- When one technique does not deliver results, try scaffolding another way
- Anticipate the misunderstandings and respond without disrupting the lesson flow or without losing the engagement of students that have the understanding.
- Do regular checks for understanding
- Provide clear and consistent feedback for students

8. Implements challenging tasks and opportunities that encourage students to ask questions and construct new meaning.

How do questions engage pupils and promote responses?

It doesn’t matter how good and well-structured your questions are if your pupils do not respond. This can be a problem with shy pupils or older pupils who are not used to highly interactive teaching. It can also be a problem with pupils who are not very interested in school or engaged with learning.

Pupil response is enhanced where

- there is a classroom climate in which pupils feel safe and know they will not be criticized or ridiculed if they give a wrong answer;
- prompts are provided to give pupils confidence to try an answer;
- there is a ‘no-hands’ approach to answering, where you choose the respondent rather than have them volunteer;
- ‘wait time’ is provided before an answer is required. The research suggests that 3 seconds is about right for most questions, with the proviso that more complex questions may need a longer wait time. Research shows that the average wait time in classrooms is about 1 second (Rowe 1986; Borich 1996).

How do questions develop pupils’ cognitive abilities?

Lower-level questions usually demand factual, descriptive answers that are relatively easy to give. Higher-level questions require more sophisticated thinking from pupils; they are more complex and more difficult to answer. Higher-level questions are central to pupils’ cognitive development, and...
research evidence suggests that pupils’ levels of achievement can be increased by regular access to higher-order thinking.

When you are planning higher-level questions, you will find it useful to use Bloom’s taxonomy of educational objectives (Bloom and Krathwohl 1956) to help structure questions which will require higher-level thinking. Bloom’s taxonomy is a classification of levels of intellectual behaviour important in learning. The taxonomy classifies cognitive learning into six levels of complexity and abstraction

1. Knowledge – pupils should: describe; identify; recall.
2. Comprehension – pupils should: translate; review; report; restate.
3. Application – pupils should: interpret; predict; show how; solve; try in a new context.
4. Analysis – pupils should: explain; infer; analyse; question; test; criticise.
5. Synthesis – pupils should: design; create; arrange; organise; construct.
6. Evaluation – pupils should: assess; compare and contrast; appraise; argue; select.

Website: [http://oer.educ.cam.ac.uk/wiki/Teaching_Approaches/Questioning](http://oer.educ.cam.ac.uk/wiki/Teaching_Approaches/Questioning)

**Planning/Coaching Questions**

- How did you scaffold questions, concepts, and skills to support student learning of the content?
- How will you select accurate and appropriate instructional strategies and materials for each lesson?
- How will you plan for and implement review of previously learned concepts or skills in my lessons?
- How will you ensure the instruction and student activities align to the learning objective(s) and criteria for student mastery?
- How will you provide multiple models and delivery methods to explain concepts accurately?
- What are the likely student misconceptions that will arise during this lesson? How can I address those misconceptions during instruction?
- How will I engage ensure tasks are challenging and provide opportunities for students to ask questions and construct new meaning?
- How will I utilize questioning techniques to engage students in disciplinary inquiry?