

Look-for Tool: Math

Supports walkthroughs and feedback on subject-specific instructional strategies

Purpose:

This tool is intended to help leaders **provide feedback on practices associated with strengthening a teacher's content knowledge as they shift to align with more rigorous standards and curriculum**. It is based on the descriptors in the Teacher Content Knowledge indicator (noted below) within the NIET Teaching and Learning Standards Rubric and includes aligned, concrete "look-fors" for math. The second descriptor in the Teacher Content Knowledge indicator, *implements a variety of subject-specific instructional strategies*, defines look-fors in more detail in three subcategories – *focus*, *questioning*, and *student work* – that point to the primary shifts that occur as teachers align to the depth required by college and career readiness standards.

- **Focus** defines the overarching practices a leader should see for this subject.
- **Questioning** details what a leader should hear in classroom discussion to better ensure that specific-subject depth is achieved.
- **Student work** describes the tasks that should be utilized as teachers shift to more rigorous expectations.

The look-fors provide suggestions of potential evidence; however, the lists in this tool are not exhaustive, and coaches should use their own context and understanding to consider other ways a teacher may demonstrate his or her content knowledge in practice.

How to use this tool:

This tool can be used by school leaders and coaches during walkthroughs or observations to identify evidence of practices associated with strengthening teacher's content knowledge as they shift to align with more rigorous standards and curriculum. It is intended to provide feedback to teachers as they work to deepen student learning. The tool provides a developmental continuum for the observer to provide an assessment of the teacher's content knowledge as demonstrated in practice. Coaches and teachers are also encouraged to discuss the evidence from walkthroughs, observations, and analysis of student work in pre- and post-conference sessions and in professional learning communities as appropriate.

This tool uses the following descriptors from level 5 – exemplary practice – on the NIET Teaching and Learning Standards Rubric:

NIET Teaching and Learning Standards Rubric – Instruction Domain	
	Level 5 – Exemplary <i>Consistent Evidence of Student-Centered Learning/Student Ownership of Learning – Teacher and Students Facilitate the Learning</i>
Teacher Content Knowledge	1. Teacher displays extensive content knowledge and understanding of both state standards and instructional materials, including their curriculum, for all the subjects they teach. 2. Teacher consistently implements a variety of subject-specific instructional strategies to enhance student content knowledge. 3. Teacher consistently highlights key concepts and ideas and uses them as the basis to connect other powerful ideas.

Key context from the descriptor	Look-fors: Examples of evidence	Observation
1. Displays extensive content knowledge and understanding of state standards and instructional materials, including curriculum	Teacher uses resources and activities that are aligned with the rigor of the standard(s) and objective(s).	Yes Some Not Yet
	Teacher restates purpose throughout lesson and connects purpose to each element of lesson.	Yes Some Not Yet
	Teacher shares why and how lesson objective(s) connect to everyday lives, future learning in near term (tomorrow/next week), and long term (for the year) learning.	Yes Some Not Yet
	Teacher has students preview new learning in materials.	Yes Some Not Yet
	Comments:	
2. Implements a variety of subject-specific instructional strategies	Focus in Math	
	Majority of lesson focused on the depth required by the standard.	Yes Some Not Yet
	Teacher clearly explains larger conceptual meaning preceding a focus on procedures.	Yes Some Not Yet
	Teacher guides practice to ensure student ownership of learning.	Yes Some Not Yet
	Teacher shows how math concept is applied using a variety of examples.	Yes Some Not Yet
	Questioning in Math	
	Teacher sequences questions that allow students to progress in their understanding of and build knowledge of the concept(s).	Yes Some Not Yet

	Teacher uses a variety of representations and visuals (graphical, numerical, analytical, contextual) to support instruction and questioning.	Yes Some Not Yet
	Teacher asks questions in a way that allows students to do the thinking.	Yes Some Not Yet
	Teacher uses mistakes to provide additional opportunities to learn.	Yes Some Not Yet
	Student Work in Math	
	Students are regularly engaged in tasks that require them to think, reason, and problem-solve.	Yes Some Not Yet
	Students are engaged in writing about math to sharpen their thinking and reasoning skills.	Yes Some Not Yet
	Students have regular opportunities to share and discuss math concepts, ideas, and problems with peers, teachers, and other adults.	Yes Some Not Yet
	Comments:	
3. Highlights key concepts and ideas and uses them as the basis to connect other powerful ideas	Teacher connects lesson ideas to key concepts within a unit to help students transfer knowledge to other related concepts/ideas	Yes Some Not Yet
	Teacher references and uses prompting questions about current events and ideas from today's culture to help students connect to learning	Yes Some Not Yet
	Comments:	