Standard 4: Teaches for Critical Thinking

SCORING RUBRIC	EXAMPLES OF EVIDENCE AND "LOOK-FORS"
Indicator 4.1 – The teacher uses instructional strategies that lead students to problem-solving and critical thinking.	
0 – The teacher does not use instructional strategies to promote student problem-solving or critical thinking skills.	• Students are not involved in problem-solving or critical thinking
1 – The teacher seldom uses instructional strategies that require students to problem-solve and think critically.	• Seldom uses questions that demand more than basic recall or mere opinion • Almost always responds to own questions without wait time for student response • Uses routine applications of known procedures, or highly guided or constrained tasks
3 – The teacher occasionally uses instructional strategies that require students to problem-solve and think critically less than half of the time, or with fewer than half of the students.	• Occasionally uses instructional strategies that require some students to reason, problem-solve, and think critically (e.g., to assess or develop an informed argument, weigh credibility of evidence, justify or evaluate thinking, use cause-and-effect charts) • Uses some higher-order questions with skill (e.g., "how do you know?" or "why do others come to a different conclusion?"), but is not consistent • May provide opportunities for higher-order thinking (e.g., compare, analyze, infer, evaluate, explain, justify) without appropriate follow-through • Mostly uses routine applications of known procedures • May provide too much or too little scaffolding for problem solving
5 – The teacher often uses instructional strategies that require students to problem-solve and think critically more than half of the time, or with more than half of the students.	• Often uses instructional strategies that require most students to reason, problem-solve, and think critically • Models critical thinking and steps necessary to problem-solve for students, but misses some opportunities • May allow students to problem-solve independently instead of providing step-by-step instructions • Implements meaningful learning experiences that require most students to apply disciplinary knowledge to real-world problems
7 – The teacher almost always uses instructional strategies that engage almost all students in learning activities to promote problem-solving and critical thinking continuously through almost all the lesson.	• If time allows, progresses fluently through multiple instructional strategies that require almost all students to think critically and problem-solve • Consistently requires students to explain or justify their thinking, problem-solve, formulate questions, predict, be creative, or make informed decisions • Almost all students consistently engage in individual or collaborative critical thinking and problem-solving, analysis, synthesis, interpretation, and creation of original products • Strongly models critical thinking
NOTE: In ECE, critical thinking may involve allowing learners to use materials in unique ways, looking at problems in different ways, generating their own ideas, or actively discovering, investigating, exploring, constructing, and creating. Also may involve letting learners take risks, experiment, and make mistakes. Another example includes allowing learners to lead and then following their lead.	

Indicator 4.1 Clarification

Indicator 4.1 addresses the teacher's ability to **draw students into skillfully applying, analyzing, synthesizing, and evaluating information to reach a conclusion or solve a problem**. Promoting critical thinking (CT) and problem-solving skills is difficult and fairly uncommon in typical classrooms.

There are various ways that teachers can promote CT.

- Ask challenging questions – not just yes/no questions.
- Give students complex, demanding tasks that require persistent effort, concentration, and various cognitive and metacognitive strategies.
- Require students to determine what makes an argument valid, assess possible solutions, categorize problems, map concepts, or explain a worked example.
- Ask students to justify their thinking or evaluate others' thinking.
- Ask students to generate questions and problems, independently collect and assess relevant information in the content, and come to an extended conclusion/justification that works to solve complex issues.

Every incident of the phrase "solve a problem" does not necessarily involve CT. For example, a teacher in a math class may ask students to "solve the problems on page 17" or "come to the board and solve the problem." These tasks are CT only if they have the properties listed above. However, if the tasks merely involve a student applying a scripted algorithm, then the "problem-solving" is not CT.

Note that CT is not always appropriate in a given observation period. There are times when students should be practicing and over-learning skills that are foundational to higher-level CT. However, CT should occur at some point in every classroom. For school districts in which CT is a prioritized indicator, we recommend that evaluators come back at another time if an activity is occurring in a classroom that is appropriate, but affords little opportunity for CT (e.g., practicing multiplication tables so that these become automatic). To maintain the "drop in" nature of classroom observations, but increase the likelihood that CT will be in evidence, the evaluator may ask the teacher for multiple suggested times to "drop in" and then randomly select one of them.

SCORING RUBRIC	EXAMPLES OF EVIDENCE AND "LOOK-FORS"
Indicator 4.2 – The teacher effectively uses appropriate instructional resources to enhance student learning.	
0 – The teacher does not effectively use appropriate instructional resources to enhance student learning.	• No use of appropriate instructional resources* • Uses inappropriate or inadequate text or materials • ECE – Materials are not accessible to learners
1 – The teacher seldom effectively uses appropriate instructional resources to enhance student learning.	• Rarely uses instructional resources* or uses these in perfunctory or developmentally inappropriate ways • Uses the standard text or materials in ineffective ways • ECE – Materials are seldom accessible to learners; No flexibility for learners to take materials from one center to another
3 – The teacher occasionally effectively uses appropriate instructional resources to enhance student learning less than half of the time, or with fewer than half of the students.	• Uses instructional resources* effectively on occasion, but is not consistent • Uses some developmentally appropriate instructional resources* but does not maximize the potential for enhancing student learning • ECE – Materials are occasionally accessible to learners; Limited flexibility for learners to take materials from one center to another
5 – The teacher often effectively uses appropriate instructional resources to enhance student learning more than half of the time, or with more than half of the students.	• Uses instructional resources* appropriate for most students • Sets up lessons so that students use instructional resources* in a meaningful way most of the time • If time permits, uses a variety of instructional resources* • ECE – Materials are often accessible to learners; Some flexibility for learners to take materials from one center to another
7 – The teacher almost always effectively uses appropriate instructional resources to enhance student learning for almost all students.	• Uses a variety of instructional resources* effectively • Selects instructional resources* that strengthen learning activities • Promotes technology skills through use of instructional resources* • May ask students to critique quality of information from instructional resources* or evaluate how instructional resources* will benefit their learning • ECE – Materials are always accessible to learners; Complete flexibility for learners to take materials from one center to another

Instructional resources may include technology, online resources, primary source documents, manipulatives, supplementary readings, video or audio, etc. In ECE, instructional resources may include technology, art materials, sensory materials, blocks, big books, puzzles, dramatic play, props, variety of writing materials or models/anchor charts, open-ended materials used to promote creativity, etc.

NOTE: This indicator is about use of technology for instruction. Indicator 6.4 is about use of technology for communication.

Standard 5: Creates a Positive Classroom Learning Environment

SCORING RUBRIC	EXAMPLES OF EVIDENCE AND "LOOK-FORS"
Indicator 5.1 – The teacher uses motivation strategies that affectively engage students.	
0 – The teacher does not use motivation strategies that affectively engage students.	• No evidence of motivation strategies* in use • ECE – Centers do not engage learners
1 – The teacher seldom uses motivation strategies that affectively engage students.	• Uses a few motivation strategies* with limited success • Uses motivation strategies* in ways that undermine long-term motivation (e.g., sarcasm, threats) • Uses gimmicks that distract rather than engage students • Students may express boredom or frustration • ECE – Centers seldom engage learners or engage few learners; Learners seldom have opportunities to make choices and work independently
3 – The teacher occasionally uses motivation strategies that affectively engage students less than half of the time, or with fewer than half of the students.	• Uses motivation strategies* with some success • Some students appear moderately motivated some of the time • Some students express positive emotions (e.g., interest, excitement, amusement, pride) for the learning activity some of the time • Lesson occasionally drags • ECE – Centers engage some learners some of the time; Learners occasionally have opportunities to make choices and work independently
5 – The teacher often uses motivation strategies that affectively engage students more than half of the time, or with more than half of the students.	• Uses multiple motivation strategies* with much success • Most students appear motivated most of the time • Most students express positive emotions (e.g., interest, excitement, amusement, pride) for the learning activity most of the time • Some students may be unmotivated, but many are motivated • ECE – Centers engage most learners much of the time; Learners often have opportunities to make choices and work independently
7 – The teacher almost always uses motivation strategies that affectively engage almost all of the students.	• Uses multiple motivation strategies* with great success • Adjusts and refines use of motivation strategies* based on effectiveness • Almost all students appear highly motivated almost all of the time • Almost all students express positive emotions (e.g., interest, excitement, amusement, pride) for the learning activity almost all of the time • Students may be engaged in self-directed learning • ECE – Centers are fully engaging so that learners want to play; Lessons are developmentally appropriate, quick, and relevant; Teacher is enthusiastic

* This indicator emphasizes intrinsic motivation more than external motivation. Research-based motivation strategies may include using interesting materials, providing attractive choice (autonomy), praise (avoiding criticism), pointing out progress, communicating enthusiasm for the content, setting and achieving goals, promoting self-efficacy, and communicating that success is due to effort (not ability). In ECE, setting up centers is foundational and central to the lesson plan. Centers should motivate and affectively engage learners.

NOTE: This indicator refers to positive emotions toward the content or lesson activities. Indicator 5.3b is about positive emotions toward the teacher.

NOTE: There are three distinct types of engagement in the classroom – cognitive, affective, and behavioral. This indicator addresses affective engagement only. The other forms of engagement are addressed in Indicators 1.2 and 5.2.

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Indicator 5.1 Clarification

Indicator 5.1 addresses the teacher's ability to **motivate and affectively (or emotionally) engage students in the lesson.** Motivation initiates and directs behavior. Teachers can influence student motivation in a variety of ways. One way is to increase student self-efficacy (confidence), which is a strong predictor of achievement. Students high in self-efficacy are more willing to take on and stick with challenging tasks, put effort into learning, and learn more. Also, teachers can influence student motivation by promoting autonomy in the classroom. Autonomy is the sense that one is engaging in learning activities that reflect one's own choice and self-identity, rather than being compelled to do so. Teachers foster autonomy by deemphasizing external reinforcement, encouraging students to solve problems in their own way, acknowledging student feelings, and listening more than talking. In contrast, teachers who use directive, commanding statements and use coercive techniques, such as rewards and punishments, diminish feelings of autonomy. Teachers also increase motivation by affectively engaging students, or making lessons enjoyable, fun, and interesting.

There are various ways that teachers can promote motivation and affective engagement.

- Use materials and activities that students find interesting.
- Emphasize intrinsic motivators more than external motivators.
- Connects instruction/activities with students' lives to show relevance.
- Use authentic examples.
- Provide attractive choices (autonomy).
- Praise students for genuine achievement (and avoiding criticism).
- Communicate enthusiasm for the content.
- Help students set achievable, but challenging, goals.
- Promote students' self-efficacy.
- Communicate to students that success is due to effort and good strategies (not ability).

Success may be indicated by students expressing positive emotions, energy, persistence in the face of difficulty, preference for difficult tasks, and enthusiasm in the learning activity.

SCORING RUBRIC	EXAMPLES OF EVIDENCE AND "LOOK-FORS"
Indicator 7.4 – The teacher monitors the effect of instruction on the whole class and individual learning.	
NOTE: Must take corrective action, if needed and appropriate, to score above a 2.	
0 – The teacher does not check the effect of instruction on the whole class or individual learning.	• Does not assess whether students have achieved the lesson objective • Does not engage in on-the-spot assessment
1 – The teacher seldom conducts formative, on-the-spot assessment of learning for the whole class or individual students and does not take needed corrective action.	• Seldom monitors learning progress • May superficially use question and answer as assessment • Minimal follow-up or checking for understanding • Monitors learning somewhat, but does not take corrective action
3 – The teacher occasionally conducts formative, on-the-spot assessment of learning for the whole class and individual students and takes corrective action as needed, less than half of the time, or for fewer than half of the students.	• Occasionally quickly assesses understanding of some students before moving on to the next learning activity • Occasionally uses techniques to monitor learning progress (e.g., observing classroom interactions or student work, questioning, thumbs up, fist-to-five, white boarding, exit slips) • May monitor progress of the class as a whole • If needed and appropriate, some corrective action is taken
5 – The teacher often conducts formative, on-the-spot assessment of learning for the whole class and individual students and takes corrective action as needed more than half of the time, or for more than half of the students.	• Often monitors learning progress of most students • Monitors the whole class and many individuals • May use multiple checks for understanding • Often adjusts instruction using students' responses to questions and discussions, correcting misconceptions, or monitoring other feedback • Takes corrective action as needed and appropriate for the class as a whole and most individual students
7 – The teacher almost always conducts formative, on-the-spot assessment of learning and takes corrective action as needed for both the whole class and almost all individual students.	• Systematically monitors learning progress • Continuously monitors progress in attaining instructional objectives for the whole class and for each student • On-the-spot assessment is seamless throughout instruction • Strong, appropriate corrective action is taken to ensure learning of almost all students

In ECE, the same look-fors are applicable, but the method of assessment may place greater reliance on informal teacher observation, portfolios, data tracking sheets, and anecdotal notes. In addition, evaluators may want to focus on percentage of time rather than percentage of students. Teachers often cannot assess all three-year-olds at once, although some activities may provide quick checks for understanding among all learners. Assessment should be developmentally appropriate, may involve scaffolding, and be tailored to individual learner's zone of proximal development.

Indicator 7.4 Clarification

Indicator 7.4 addresses the teacher's ability to **monitor the effect of instruction on individual students and the whole class.** It is about formative assessment of a particular kind. Formative assessment has multiple meanings, but in NEE we use the term to refer to quick checks for understanding as the lesson is progressing. The purpose is to inform modification of teaching and learning activities in real time. It is information used to guide instruction as part of the instructional process.

There are various ways that teachers can conduct quick checks for understanding.

• Questioning (most common form)
• Solving problems on a whiteboard
• Answering spot quizzes with fist-to-five, thumbs up, or clicker techniques

To score high on Indicator 7.4, the teacher must also take appropriate corrective action when modifications to instruction need to be made. Strong, corrective action can be in the form of modifying the lesson if a high number of students are not understanding, providing scaffolding as students work through cognitive errors or incorrect answers, or asking further questions to ascertain whether students are mastering the objectives of the lesson.

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