The NCTM STAR Supplement is a cumulative assessment of an intern’s progress toward meeting NCTM standards. The [UMBC Observation Tool](https://mathed.umbc.edu/files/2019/08/UMBC_Observation_Tool.docx)may be helpful in notetaking during your observations of the intern. Meaningful and in-depth conversations with all three, (intern-mentor-supervisor) are essential for ensuring that everyone is on the same page. Identifying strengths as well as areas for improvement is encouraged. Early identification of weak spots is essential for helping the intern complete the program successfully.

**Rating Guide**

* Phase 1 Summative (Late November/Early December)
  + Overall average of 2.0 is considered sufficient to advance to Phase II.
  + Overall average of 1.5 – 2.0 indicates the need for additional support for the intern to succeed in Phase II. Program coordinator, secondary director, and/or OFECP director will discuss potential supports with mentor and supervisor and develop an action plan with the intern as needed.
  + Overall average of less than 1.5 indicates the intern is not sufficiently prepared to succeed in Phase II. Intern must meet with program coordinator, secondary director, and/or OFECP director to develop a formal action plan.
* Phase 2 Mid-Point Benchmark (Late February/Early March)
  + Overall average of 2.5 is considered sufficient to continue in Phase II without additional supports.
  + Overall average of 2.0 – 2.5 indicates the need for additional support for the intern to complete Phase II successfully. Program coordinator, secondary director, and/or OFECP director will discuss potential supports with mentor and supervisor and develop an action plan with the intern as needed.
  + Overall average of less than 2.0 indicates the intern is not sufficiently progressing in Phase II. Intern must meet with program coordinator, secondary director, and/or OFECP director to develop a formal action plan.
* Phase 2 Summative (Late April/Early May)
  + Overall average of 3.0 is considered sufficient to successfully complete the internship.
  + Overall average of less than 3.0 indicates the need for additional support for the intern to complete Phase II successfully. An extended Phase II and additional observation may be necessary. Intern must meet with program coordinator, secondary director, and/or OFECP director to develop a formal action plan.
* This is a teaching tool. Low scores on criteria indicate an area of focus, an area where growth is needed.
  + Do not purposefully score low at the beginning of the year in order to show growth. If the candidate is at target level from the first observation, that’s fine.
  + Conversely, if the candidate is not at the target level at the end of Phases I or II, do not inflate their scores to pass them. **The performance descriptions in the rubric define behaviors that merit a particular score**.
* N/A (Not Applicable) or N/O (Not Observed)? This rubric is a cumulative measure, and **no criterion should be considered “Not Applicable.”** If an item is not observed during the exact lesson observed, please reflect on the candidates’ approximate abilities at that time of the observation and discuss with the intern. As a teaching tool, interns need feedback on criteria.

**Rubric**

| **Description** | **Level 1**  The Beginning Candidate | **Level 2**  The Developing Candidate | **Level 3**  The Competent Candidate | **Level 4**  The Accomplished Candidate |
| --- | --- | --- | --- | --- |
| **NCTM 2a Problem Solving**. Candidates support a range of mathematical problem-solving strategies to make sense of and solve nonroutine problems (both contextual and non-contextual) across mathematical domains. | Students mostly solve nonroutine problems (contextual **OR** non-contextual) when given a strategy. | Students mostly solve nonroutine problems (contextual **AND** non-contextual) when given a strategy. | Students demonstrate use of mathematical problem-solving strategies to make sense of and solve contextual and non-contextual problems in more than one mathematical domain. | Students demonstrate coordination and unprompted use of multiple mathematical problem-solving strategies when making sense of and solving contextual and non-contextual problems across mathematical domains.  Students compare strategies and make connections across domains. |
| **NCTM 2b Reasoning and Communicating.** Candidates organize their mathematical reasoning and use the language of mathematics to express their mathematical reasoning precisely, both orally and in writing, to multiple audiences. | Students do not clearly organize their own mathematical reasoning or use the language of mathematics. | Students organize their own mathematical reasoning using the language of mathematics with prompting and support and to express their mathematical reasoning orally or in writing. | Students organize their own mathematical reasoning and use the language of mathematics to express their mathematical reasoning precisely, both orally and in writing, to multiple audiences. | Students organize their own mathematical reasoning and use of the language of mathematics to express their mathematical reasoning precisely, both orally and in writing, to multiple audiences.  Students share their mathematical reasoning with a variety of audiences (e.g., small group, whole group, family members). |
| **NCTM 2c Mathematical Modeling and Use of Mathematical Models.** Candidates understand the difference between the mathematical modeling process and models in mathematics. Candidates engage in the mathematical modeling process and demonstrate their ability to model mathematics. | Lessons do not clearly develop the process of mathematical modeling or do not include opportunities for students to formulate and interpret mathematical models. | Lessons include the process of mathematical modeling and the formulation and interpretation of models but provide insufficient or too much support. | Students use the process of mathematical modeling to formulate, represent, analyze, and interpret mathematical models using a variety of tools, including technology from real-world contexts **OR** mathematical problems.  Students differentiate between a mathematical model and the mathematical modeling process. | Students use the process of mathematical modeling to formulate, represent, analyze, and interpret mathematical models derived from real- world context **AND** mathematical problems. Students extend and reformulate models based on analysis and to demonstrate the mathematical modeling process. |
| **NCTM 3a Student Diversity.** Candidates identify and use students’ individual and group differences when planning rigorous and engaging mathematics instruction that supports students’ meaningful participation and learning. | Candidate does not use students’ individual differences or group differences to enact rigorous and engaging mathematics instruction. | Candidate uses students’ individual or group differences to enact rigorous and engaging mathematics instruction for a subset of students. | Candidate uses students’ individual and group differences to enact rigorous and engaging mathematics instruction that supports meaningful participation and learning across a full range of students. | Candidate uses students’ individual and group differences to enact rigorous and engaging mathematics instruction that supports meaningful participation and learning by each and every student. |
| **NCTM 3b Students’ Mathematical Strengths.** Candidates identify and use students’ mathematical strengths to plan rigorous and engaging mathematics instruction that supports students’ meaningful participation and learning. | Candidate does not use students’ mathematical strengths to enact rigorous and engaging mathematics instruction. | Candidate uses students’ mathematical strengths to enact rigorous and engaging mathematics instruction for a subset of students. | Candidate uses students’ mathematical strengths to enact rigorous and engaging mathematics instruction that supports meaningful participation and learning across a full range of students. | Candidate uses students’ mathematical strengths to enact rigorous and engaging mathematics instruction that supports meaningful participation and learning by each and every student. |
| **NCTM 3c Positive Mathematical Identities**. Candidates understand that teachers’ interactions impact individual students by influencing and reinforcing students’ mathematical identities, positive or negative, and plan experiences and instruction to develop and foster positive mathematical identities. | Candidate does not recognize that teachers’ interactions impact individual students by influencing and reinforcing student’s mathematical identities, positive or negative; or candidate does not enact experiences and instruction to develop and foster students’ positive mathematical identities for a subset of students. | Candidate understands that teachers’ interactions impact individual students by influencing and reinforcing student’s mathematical identities, positive or negative.  Candidate enacts experiences and instruction to develop and foster students’ positive mathematical identities for a subset of students. | Candidate understands that teachers’ interactions impact individual students by influencing and reinforcing student’s mathematical identities, positive or negative.  Candidate enacts experiences and instruction to develop and foster students’ positive mathematical identities across a full range of students. | Candidate understands that teachers’ interactions impact individual students by influencing and reinforcing student’s mathematical identities, positive or negative.  Candidate enacts experiences and instruction to develop and foster students’ positive mathematical identities for each and every student. |
| **NCTM 4a Establish Rigorous Mathematics Learning Goals.** Candidates establish rigorous mathematics learning goals for students based on mathematics standards and practices. | Candidate establishes mathematics learning goals that lack rigor for students. | Candidate establishes mathematics learning goals that demonstrate some level of rigor for students but are not situated within mathematics standards and practices **OR** the purposes for learning mathematics. | Candidate establishes rigorous mathematics learning goals for students situated within mathematics standards and practices and the purposes for learning mathematics. | Candidate establishes rigorous mathematics learning goals for students situated within learning progressions, mathematics standards and practices and the purposes for learning mathematics.  Candidate recognizes and uses connections when establishing goals. |
| **NCTM 4b Engage Students in High Cognitive Demand Learning**. Candidates select or develop and implement high cognitive demand tasks to engage students in mathematical learning experiences that promote reasoning and sense making. | Candidate selects tasks without regard to engaging students in high cognitive demand mathematical learning experiences. | Candidate selects or develops tasks that could engage students in high cognitive demand mathematical learning experiences, but implementation fails to maintain a high cognitive demand with students. | Candidate selects or develops and implements tasks to engage a full range of students in high cognitive demand mathematical learning experiences that promote reasoning and sense making. | Candidate analyzes, modifies, sequences, and implements tasks to engage each and every student in high cognitive demand mathematical learning experiences that promote reasoning and sense making. |
| **NCTM 4c Incorporate Mathematics-Specific Tools.** Candidates select mathematics-specific tools, including technology, to support students’ learning, understanding, and application of mathematics and to integrate tools into instruction. | Candidate selects tools without regard to supporting students’ learning, understanding, and application of mathematics. | Candidate selects mathematics-specific tools, including technology, to support students’ learning, understanding, and application of mathematics but there is a lack of quality in the tools (including missed opportunities) or in how they were used. | Candidate selects mathematics-specific tools, including technology, to support a full range of students’ learning, understanding and application of mathematics and integrates tools into instruction. | Candidate selects mathematics-specific tools, including technology, to support each and every students’ learning, understanding and application of mathematics and integrates tools into instruction. |
| **NCTM 4d Use Mathematical Representations**. Candidates select and use mathematical representations to engage students in examining understandings of mathematics concepts and the connections to other representations. | Candidate selects mathematical representations without regard to supporting students’ learning, understanding, and application of mathematics. | Candidate selects mathematical representations to support students’ learning, understanding, and application of mathematics but there is a lack of quality in the representations (including missed opportunities) or in how they were used. | Candidate selects mathematical representations to support students’ learning, understanding, and application of mathematics and implements and connects representations during instruction. | Candidate selects and connects mathematical representations to support students’ learning, understanding, and application of mathematics and implements and facilitates students in making connections between representations. |
| **NCTM 4e Elicit and Use Student Responses.** Candidates use multiple student responses, potential challenges, and misconceptions, and they highlight students’ thinking as a central aspect of mathematics teaching and learning. | Candidate is unable to elicit or use student responses reflecting their thinking to inform instruction. | Candidate elicits multiple student responses reflecting their thinking, including potential challenges or misconceptions.  Candidate is unable to use student responses to inform the mathematics teaching and learning process. | Candidate elicits multiple student responses, potential challenges, and misconceptions.  Candidate notices and tracks multiple student responses, as well as challenges or misconceptions as students are solving problems.  Candidate uses students’ multiple methods and/or challenges and/or misconceptions to engage the full range of students in extending their mathematical learning. | Candidate considers individual and group differences when eliciting multiple student responses, potential challenges, and misconceptions.  Candidate notices and tracks multiple student responses as well as challenges or misconceptions as students are solving problems.  Candidate uses students’ multiple methods and/or challenges and/or misconceptions to engage each and every student in extending their mathematical learning. |
| **NCTM 4f Develop Conceptual Understanding and Procedural Fluency.** Candidates use conceptual understanding to build procedural fluency for students through instruction that includes explicit connections between concepts and procedures. | Candidate designs instruction that does not include both conceptual understanding and procedural fluency. | Candidate designs instruction that includes both conceptual understanding and procedural fluency, but the connections between conceptual understanding and procedural fluency are limited or not clearly present. | Candidate designs and implements instruction that uses conceptual understanding to build procedural fluency, including explicit connections between concepts and procedures. | Candidate designs and implements instruction that uses conceptual understanding to build procedural fluency, including explicit connections between concepts and procedures.  Candidate facilitates students making connections between procedures and concepts. |
| **NCTM 4g Facilitate Discourse.** Candidates pose purposeful questions to facilitate discourse among students that ensures that each student learns rigorous mathematics and builds a shared understanding of mathematical ideas. | Candidate does not clearly pose questions that focus on rigorous learning goals and does not clearly facilitate discourse among students in support of building shared understanding of mathematical ideas. | Candidate poses questions that focus students on the rigorous mathematical goals or making connections; or candidate facilitates discourse among students to build shared understanding of mathematical ideas, but discourse is limited to a subset of students. | Candidate poses questions that focus students on the rigorous mathematical goals or making connections.  Candidate facilitates discourse among students to build shared understanding of mathematical ideas and ensure that a full range of students engage in rigorous mathematics. | Candidate poses questions that focus students on the rigorous mathematical goals and making connections.  Candidate facilitates discourse among students to build shared understanding of mathematical ideas and ensures that each and every student engages in rigorous mathematics. |
| **NCTM 6a Promote Equitable Learning Environments.** Candidates seek to create more equitable learning environments by identifying beliefs about teaching and learning mathematics, and associated classroom practices that produce equitable or inequitable mathematical learning for students. | Candidate is unable to identify beliefs and practices that produce inequitable mathematical learning experiences and outcomes for students. | Candidate identifies beliefs and classroom practices that produce inequitable mathematical learning experiences and outcomes for students.  Candidate identifies beliefs that produce equitable mathematical learning experiences and outcomes for students. | Candidate identifies beliefs and classroom practices that produce equitable and inequitable mathematical learning experiences and outcomes for students.  Candidate seeks out information to increase equitable practices and/or eliminate inequitable practices to further mathematical learning. | Candidate identifies personal beliefs, classroom practices, and systemic structures that produce equitable and inequitable mathematical learning experiences and outcomes for students.  Candidate seeks out information to increase equitable practices and/or eliminate inequitable practices to further mathematical learning for individual students.  Candidate demonstrates ways to help traditionally marginalized students experience success. |
| **NCTM 6b Promote Positive Mathematical Identities**. Candidates reflect on their impact on students’ mathematical identities and develop professional learning goals that promote students’ positive mathematical identities. | Candidate reflects on their impact on students’ mathematical identities but does not develop professional learning goals to better promote students’ positive mathematical identities. | Candidate reflects on their impact on students’ mathematical identities and develops professional learning goals that promote students’ positive mathematical identities but without identifying specific strategies or resources. | Candidate reflects on their impact on students’ mathematical identities and develops professional learning goals that promote students’ positive mathematical identities, including specific strategies for meeting these goals. | Candidate reflects on their impact on individual student’s mathematical identities and develops professional learning goals that promote students’ positive mathematical identities, including specific strategies and professional resources for meeting these goals. |
| **NCTM 6c Engage Families and Community.** Candidates communicate with families to share and discuss strategies for ensuring the mathematical success of their children. | Candidate communicates information to families about mathematical ideas and processes. | Candidate communicates information to families about mathematical ideas and processes and suggests good mathematics resources for families to contribute to the mathematical success of their children. | Candidate communicates with families about the mathematical ideas and processes that students are exploring, suggests good mathematics resources, and provides opportunities for the candidate and families to discuss strategies for ensuring the mathematical success of their children. | Candidate communicates with families about the mathematical ideas and processes that students are exploring, suggests good mathematics resources, and provides opportunities for the candidate and families to discuss strategies for ensuring the mathematical success of their children.  Candidate seeks out opportunities in the community to understand and interact with families. |
| **NCTM 6d Collaborate with Colleagues.** Candidates collaborate with colleagues to grow professionally and support student learning of mathematics. | Candidate identifies potential collaboration or professional learning opportunities that focus on learning and teaching in mathematics education. | Candidate collaborates with colleagues or participates in professional development and/or learning communities that focus on learning and teaching in mathematics education. | Candidate collaborates with colleagues to support student learning of mathematics.  Candidate participates in professional development and/or learning communities that focus on learning and teaching in mathematics education. | Candidate collaborates with colleagues to support student learning of mathematics.  Candidate participates in professional development and/or learning communities that focus on learning and teaching in mathematics education.  Candidate participates in professional development opportunities based on targeted professional learning needs. |