# 4-12 Mathematics

Based on the Association of Mathematics Teacher Educators’ s (AMTE) [Standards for Preparing Teachers of Mathematics](https://amte.net/standards). Revised April 2023

Mathematical content knowledge ([Wisconsin Standards for Mathematics](https://dpi.wi.gov/math/standards)) underlies all aspects of the portfolio: disciplinary content, pedagogical skills, and responsiveness to students. This rubric was designed to align with the Association of Mathematics Teacher Educator (AMTE) [Standards for Preparing Teachers of Mathematics](https://amte.net/standards). These content guidelines are accessible through an AMTE membership or a hard copy of the content guidelines can be purchased at [Information Age Publishing](https://www.infoagepub.com/authors/amte).

A 3-Year License with Stipulation Mathematics Portfolio must provide evidence that an applicant has mathematical content knowledge ranging from grade 4 through high school, certifying one to teach up to and including Calculus courses. Artifacts and their corresponding explanations provide evidence of the knowledge, skills, and dispositions necessary to be proficient in teaching mathematics to students in grades 4 -12. Mathematical content knowledge from each of the following three grade bands must be reflected within the portfolio. Details for each grade band
can be found in the AMTE Content Guidelines as shown below.

* **Gr. 3 to 5** Chapter 5, Part 1: *Elaborations of the Knowledge, Skills, and Dispositions Needed
by Well-Prepared Beginning Teachers of Mathematics in the Upper Elementary Grades*
* **Gr. 6 to 8** Chapter 6, Part 1: *Elaborations of the Knowledge, Skills, and Dispositions Needed
by Well-Prepared Beginning Teachers of Mathematics at the Middle Level*
* **Gr. 9 to 12** Chapter 7, Part 1: *Elaborations of the Knowledge, Skills, and Dispositions Needed
by Well-Prepared Beginning High School Mathematics Teachers*

## A. MATHEMATICS CONTENT, STANDARDS FOR MATHEMATICAL PRACTICE, AND ASSESSMENT KNOWLEDGE

| *Based on the preponderance of evidence:* | Meets | Does Not Meet | Reviewer Feedback |
| --- | --- | --- | --- |
| A1. A unit plan and a sequence of instructional plans from that unit, include grade-level standards (content and practices) and learning outcomes. |[ ] [ ]   |
| A2. Planned progression for learning is clear, logical, and aligned with standards-based learning outcomes. |[ ] [ ]   |
| A3. Formative, summative, and interim assessments are aligned to grade-level, standards-based learning outcomes. |[ ] [ ]   |
| A4. Assessment processes and techniques provide flexibility in how students demonstrate their learning, allowing for their strengths to be recognized. |[ ] [ ]   |

## B. PEDAGOGICAL SKILLS TO FACILITATE LEARNING WITHIN MATHEMATICS

| Based on the preponderance of evidence: | Meets | Does Not Meet | Reviewer Feedback |
| --- | --- | --- | --- |
| B1. A unit plan and a sequence of instructional plans show how wondering, reasoning, and understanding are at the heart of mathematics. |[ ] [ ]   |
| B2. A unit plan and a sequence of instructional plans show how learning outcomes and assessment criteria is made evident to students and how feedback is provided to students. |[ ] [ ]   |
| B3. Instruction and assessment techniques and strategies facilitate access to standards-based learning outcomes that build on previous learning and create a foundation for future learning. |[ ] [ ]   |
| B4. Instructional resources are aligned to standards and are both culturally and linguistically sustaining. |[ ] [ ]   |

## C. BUILDING AN INCLUSIVE MATHEMATICS COMMUNITY

| Based on the preponderance of evidence: | Meets | Does Not Meet | Reviewer Feedback |
| --- | --- | --- | --- |
| C1. Student interests, linguistic and cultural assets, and abilities are leveraged for learning. |[ ] [ ]   |
| C2. A unit plan and a sequence of instructional plans show how student mathematical ideas will be captured, honored, and respected. |[ ] [ ]   |
| C3. Each and every student’s ideas are used to grow the mathematical community. |[ ] [ ]   |
| C4. Respectful relationships among teachers and families value family expertise and detailed knowledge of their children in service of mathematical learning. |[ ] [ ]   |