**Alignment of *NCTM CAEP Standards (2012) for Middle Grades* to edTPA Rubrics**

Alignment is based on how well edTPA Middle Grades Mathematics Operational Handbook 2013-14 rubric criteria, rather than task directions, provide evidence supporting elements of the *NCTM CAEP Standards (2012) for Middle Grades*. Two of 15 edTPA rubrics provide sufficient evidence (moderate or strong support level) for one or more elements of Standards 3 and 4. edTPA rubrics do not provide any evidence for elements of Standards 1, 6, and 7 and provide insufficient evidence (limited support level) for elements of Standards 2 and 5. edTPA is designed as a measure of pedagogy and is not intended to measure ALL aspects of effective teaching. Elements of the *NCTM CAEP Standards (2012) for Middle Grades* not listed below are recognized as beyond the scope of edTPA purpose and composition.

|  |  |
| --- | --- |
| **Element** | **edTPA Rubric # and Level of Support** |
| **2a**  Use problem solving to develop conceptual understanding, make sense of a wide variety of problems and persevere in solving them, apply and adapt a variety of strategies in solving problems confronted within the field of mathematics and other contexts, and formulate and test conjectures in order to frame generalizations. | 8 – Limited |
| **2b**  Reason abstractly, reflectively, and quantitatively with attention to units, constructing viable arguments and proofs, and critiquing the reasoning of others; represent and model generalizations using mathematics; recognize structure and express regularity in patterns of mathematical reasoning; use multiple representations to model and describe mathematics; and utilize appropriate mathematical vocabulary and symbols to communicate mathematical ideas to others. | 9 – Limited |
| **3b**  Analyze and consider research in planning for and leading students in rich mathematical learning experiences. | 3 – Moderate |
| **3c**  Plan lessons and units that incorporate a variety of strategies, differentiated instruction for diverse populations, and mathematics-specific and instructional technologies in building all students’ conceptual understanding and procedural proficiency. | 3 – Limited |
| **3d**  Provide students with opportunities to communicate about mathematics and make connections among mathematics, other content areas, everyday life, and the workplace. | 8 – Limited |
| **3e**  Implement techniques related to student engagement and communication including selecting high quality tasks, guiding mathematical discussions, identifying key mathematical ideas, identifying and addressing student misconceptions, and employing a range of questioning strategies. | 7 – Limited; 8 – Limited |
| **3f**  Plan, select, implement, interpret, and use formative and summative assessments to inform instruction by reflecting on mathematical proficiencies essential for all students. | 5 – Strong; 10 – Limited; 11 – Limited; 13 – Limited |
| **3g**  Monitor students’ progress, make instructional decisions, and measure students’ mathematical understanding and ability using formative and summative assessments. | 11 – Limited; 13 – Limited; 15 – Limited |
| **4b**  Plan and create developmentally appropriate, sequential, and challenging learning opportunities grounded in mathematics education research in which students are actively engaged in building new knowledge from prior knowledge and experiences. | 1 – Limited; 3 – Moderate; 7 – Limited |
| **4c**  Incorporate knowledge of individual differences and the cultural and language diversity that exists within classrooms and include culturally relevant perspectives as a means to motivate and engage students. | 2 – Limited; 4 – Limited |
| **5a**  Verify that middle grades students demonstrate conceptual understanding; procedural fluency; the ability to formulate, represent, and solve problems; logical reasoning and continuous reflection on that reasoning; productive disposition toward mathematics; and the application of mathematics in a variety of contexts within major mathematical domains. | 8 – Limited; 11 – Limited |
| **5b**  Engage students in developmentally appropriate mathematical activities and investigations that require active engagement and include mathematics-specific technology in building new knowledge. | 7 – Limited |
| **5c**  Collect, organize, analyze, and reflect on diagnostic, formative, and summative assessment evidence and determine the extent to which students’ mathematical proficiencies have increased as a result of their instruction. | 10 – Limited; 11 – Limited; 13 – Limited |