

## Alignment of OAE Middle Grades Mathematics Assessment Framework with Ohio-specified Standards

This alignment study identifies the national and/or Ohio educational standards that are addressed in whole or in part by each competency of the assessment framework. An indication of alignment does not necessarily imply complete congruence of the content of an OAE test competency with the relevant standard. The information in this document is subject to change if revisions are made to the assessment framework. Any changes will fully supersede the information contained in this document.

Competencies		Ohio Educational Preparation Standards	Ohio Educator Standards	Ohio Student Standards
<b>Mathematics (4-6)</b>		NCATE/NCTM Program Standards (2003): Programs for Initial Preparation of Mathematics Teachers-Middle Level	Ohio Standards for the Teaching Profession	Ohio's New Learning Standards: K-12 Mathematics
<u>Number Sense and Operations</u>				
0001	Understand numbers.	9	2	Number and Operations in Base Ten: Grades 4-5; Number and Operations — Fractions: Grades 4-5; The Number System: Grade 6
0002	Understand operations.	9	2	Operations and Algebraic Thinking: Grades 4-5; Number and Operations in Base Ten: Grades 4-5; Number and Operations — Fractions: Grades 4-5; Ratios and Proportional Relationships: Grade 6; The Number System: Grade 6

Competencies		Ohio Educational Preparation Standards	Ohio Educator Standards	Ohio Student Standards
<b>Mathematics (4-6)</b>		NCATE/NCTM Program Standards (2003): Programs for Initial Preparation of Mathematics Teachers-Middle Level	Ohio Standards for the Teaching Profession	Ohio's New Learning Standards: K-12 Mathematics
<u>Algebra and Functions</u>				
0003	Understand patterns, relations, and functions.	10	2	Operations and Algebraic Thinking: Grades 4-5; Expressions and Equations: Grade 6
0004	Understand algebraic techniques and applications.	10	2	Operations and Algebraic Thinking: Grades 4-5; Expressions and Equations: Grade 6
0005	Understand linear relations and applications.	10	2	Expressions and Equations: Grade 6
0006	Understand nonlinear relations and concepts of calculus.	12	2	
<u>Measurement and Geometry</u>				
0007	Understand measurement principles, procedures, and applications.	15	2	Measurement and Data: Grades 4-5
0008	Understand Euclidean geometry in two and three dimensions.	11	2	Geometry: Grades 4-6

Competencies		Ohio Educational Preparation Standards	Ohio Educator Standards	Ohio Student Standards
<b>Mathematics (4-6)</b>		NCATE/NCTM Program Standards (2003): Programs for Initial Preparation of Mathematics Teachers-Middle Level	Ohio Standards for the Teaching Profession	Ohio's New Learning Standards: K-12 Mathematics
0009	Understand coordinate and transformational geometry.	11	2	Geometry: Grades 4-6
<u>Statistics, Probability, and Discrete Mathematics</u>				
0010	Understand principles and techniques of statistics.	14	2	Measurement and Data: Grades 4-5; Statistics and Probability: Grade 6
0011	Understand principles of probability and techniques for determining probability.	14	2	Statistics and Probability: Grade 6
0012	Understand principles of discrete mathematics.	13	2	