**Oklahoma Academic Standards
for Mathematics
Correlation to *Eureka Math***
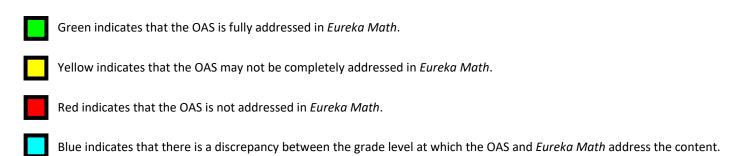
Pre-Kindergarten
June 2016

**EUREKA
MATH**™

Pre-Kindergarten Mathematics

The Pre-Kindergarten Oklahoma Academic Standards for Mathematics (OAS) are fully covered by the Pre-Kindergarten *Eureka Math*™ curriculum. A detailed analysis of alignment is provided in the table below.

Indicators

🟩	Green indicates that the OAS is fully addressed in *Eureka Math*.
🟨	Yellow indicates that the OAS may not be completely addressed in *Eureka Math*.
🟥	Red indicates that the OAS is not addressed in *Eureka Math*.
🟦	Blue indicates that there is a discrepancy between the grade level at which the OAS and *Eureka Math* address the content.

Mathematical Actions and Processes	Aligned Components of *Eureka Math*
Develop a Deep and Flexible Conceptual Understanding Demonstrate a deep and flexible conceptual understanding of mathematical concepts, operations, and relations while making mathematical and real-world connections. Students will develop an understanding of how and when to apply and use the mathematics they know to solve problems.	Lessons in every module engage students in developing a deep and flexible conceptual understanding as required by this standard. This process standard addresses aspects of the CCSSM Standards for Mathematical Practice 1 and 2, which are specifically addressed in the following modules: GPK M2: Shapes GPK M3: Counting to 10 GPK M5: Addition and Subtraction Stories and Counting to 20
Develop Accurate and Appropriate Procedural Fluency Learn efficient procedures and algorithms for computations and repeated processes based on a strong sense of numbers. Develop fluency in addition, subtraction, multiplication, and division of numbers and expressions. Students will generate a sophisticated understanding of the development and application of algorithms and procedures.	Lessons in every module engage students in developing accurate and appropriate procedural fluency as required by this standard. This process standard addresses aspects of the CCSSM Standards for Mathematical Practice 7 and 8, which are specifically addressed in the following modules: GPK M1: Counting to 5 GPK M2: Shapes GPK M3: Counting to 10 GPK M5: Addition and Subtraction Stories and Counting to 20
Develop Strategies for Problem Solving Analyze the parts of complex mathematical tasks and identify entry points to begin the search for a solution. Students will select from a variety of problem solving strategies and use corresponding multiple representations (verbal, physical, symbolic, pictorial, graphical, tabular) when appropriate. They will pursue solutions to various tasks from real-world situations and applications that are often interdisciplinary in nature. They will find methods to verify their answers in context and will always question the reasonableness of solutions.	Lessons in every module engage students in developing strategies for problem solving as required by this standard. This process standard addresses aspects of the CCSSM Standards for Mathematical Practice 1, 2, and 8, which are specifically addressed in the following modules: GPK M2: Shapes GPK M3: Counting to 10 GPK M5: Addition and Subtraction Stories and Counting to 20

Mathematical Actions and Processes	Aligned Components of *Eureka Math*
Develop Mathematical Reasoning Explore and communicate a variety of reasoning strategies to think through problems. Students will apply their logic to critique the thinking and strategies of others to develop and evaluate mathematical arguments, including making arguments and counterarguments and making connections to other contexts.	Lessons in every module engage students in developing mathematical reasoning as required by this standard. This process standard addresses aspects of the CCSSM Standards for Mathematical Practice 3, which is specifically addressed in the following modules: GPK M1: Counting to 5 GPK M2: Shapes GPK M4: Comparison of Length, Weight, Capacity, and Numbers to 5
Develop a Productive Mathematical Disposition Hold the belief that mathematics is sensible, useful, and worthwhile. Students will develop the habit of looking for and making use of patterns and mathematical structures. They will persevere and become resilient, effective problem solvers.	Lessons in every module engage students in developing a productive mathematical disposition as required by this standard. This process standard addresses aspects of the CCSSM Standards for Mathematical Practice 1, 7, and 8, which are specifically addressed in the following modules: GPK M1: Counting to 5 GPK M2: Shapes GPK M3: Counting to 10 GPK M5: Addition and Subtraction Stories and Counting to 20

Mathematical Actions and Processes	Aligned Components of *Eureka Math*
Develop the Ability to Make Conjectures, Model, and Generalize Make predictions and conjectures and draw conclusions throughout the problem solving process based on patterns and the repeated structures in mathematics. Students will create, identify, and extend patterns as a strategy for solving and making sense of problems.	Lessons in every module engage students in developing the ability to make conjectures, model, and generalize as required by this standard. This process standard addresses aspects of the CCSSM Standards for Mathematical Practice 4, 7, and 8, which are specifically addressed in the following modules: GPK M1: Counting to 5 GPK M2: Shapes GPK M3: Counting to 10 GPK M5: Addition and Subtraction Stories and Counting to 20
Develop the Ability to Communicate Mathematically Students will discuss, write, read, interpret and translate ideas and concepts mathematically. As they progress, students' ability to communicate mathematically will include their increased use of mathematical language and terms and analysis of mathematical definitions.	Lessons in every module engage students in developing the ability to communicate mathematically as required by this standard. This process standard addresses aspects of the CCSSM Standards for Mathematical Practice 3 and 6, which are specifically addressed in the following modules: GPK M1: Counting to 5 GPK M2: Shapes GPK M3: Counting to 10 GPK M4: Comparison of Length, Weight, Capacity, and Numbers to 5

Standard	Objective	Aligned Components of *Eureka Math*
Number & Operations (N)		
PK.N.1 Know number names and count in sequence.	**PK.N.1.1** Count aloud forward in sequence by 1s to 20.	GPK M1: Counting to 5 GPK M3: Counting to 10 GPK M5: Addition and Subtraction Stories and Counting to 20 Note: Fluently counting by 1s to 20 is a fluency goal in the Pre-Kindergarten *Eureka Math* curriculum and is addressed in many fluency activities throughout all modules.
	PK.N.1.2 Recognize and name written numerals 0–10.	GPK M1 Topic D: Matching 1 Numeral with up to 3 Objects GPK M1 Topic F: Matching 1 Numeral with up to 5 Objects GPK M3 Topic B: Matching One Numeral with up to 7 Objects GPK M3 Topic D: Matching One Numeral with up to 8 Objects GPK M3 Topic F: Matching One Numeral with 0 up to 9 Objects GPK M3 Topic H: Matching One Numeral with up to 10 Objects

Standard	Objective	Aligned Components of *Eureka Math*
	PK.N.1.3 Recognize that zero represents the count of no objects.	GPK M3 Lesson 21: Introduce zero. GPK M3 Topic E: *How Many* Questions with 0 up to 9 Objects GPK M3 Topic F: Matching One Numeral with 0 up to 9 Objects GPK M3 Lesson 26: Compose 9, and decompose into two parts. Match numerals 0 and 9 to no objects and 9 objects.
PK.N.2 Count to tell the number of objects.	**PK.N.2.1** Identify the number of objects, up to 10, in a row or column.	GPK M1: Counting to 5 GPK M3: Counting to 10
	PK.N.2.2 Use one-to-one correspondence in counting objects and matching groups of objects.	GPK M1: Counting to 5 GPK M3: Counting to 10
	PK.N.2.3 Understand the last numeral spoken, when counting aloud, tells how many total objects are in a set.	GPK M1: Counting to 5 GPK M3: Counting to 10
	PK.N.2.4 Count up to 5 items in a scattered configuration; not in a row or column.	GPK M1 Topic E: *How Many* Questions with 4 or 5 Objects GPK M1 Topic F: Matching 1 Numeral with up to 5 Objects

Standard	Objective	Aligned Components of *Eureka Math*
PK.N.3 Compare sets using number.	**PK.N.3.1** Compare two sets of 1–5 objects using comparative language such as same, more, or fewer.	GPK M4 Topic E: Are There Enough? GPK M4 Topic F: Comparison of Sets Up to 5 GPK M4 Topic G: Comparisons of Sets Including Numerals Up to 5
Algebraic Reasoning & Algebra (A)		
PK.A.1 Recognize, duplicate, and extend patterns.	**PK.A.1.1** Sort and group up to 5 objects into a set based upon characteristics such as color, size, and shape and explain verbally what the objects have in common.	GPK M1 Topic A: Matching Objects GPK M1 Topic B: Sorting GPK M2 Topic A: Two-Dimensional Shapes
	PK.A.1.2 Recognize, duplicate, and extend repeating patterns involving manipulatives, sound, movement, and other contexts.	GPK M1 Topic G: *One More* with Numbers 1 to 5 GPK M1 Topic H: Counting 5, 4, 3, 2, 1 GPK M5 Topic F: Duplicating and Extending Patterns
Geometry & Measurement (GM)		
PK.GM.1 Identify common shapes.	**PK.GM.1.1** Identify circles, squares, rectangles, and triangles by pointing to the shape when given the name.	GPK M2 Topic A: Two-Dimensional Shapes

Standard	Objective	Aligned Components of *Eureka Math*
PK.GM.2 Describe and compare measureable attributes.	**PK.GM.2.1** Identify measurable attributes of objects. Describe them as little, big, long, short, tall, heavy, light, or other age appropriate vocabulary.	GPK M4 Topic A: Comparison of Length GPK M4 Topic B: Comparison of Weight GPK M4 Topic C: Comparison of Volume
	PK.GM.2.2 Directly compare two objects with a common measurable attribute using words such as longer/shorter; heavier/lighter; or taller/shorter.	GPK M4 Topic A: Comparison of Length GPK M4 Topic B: Comparison of Weight GPK M4 Topic C: Comparison of Volume
	PK.GM.2.3 Sort objects into sets by one or more attributes.	GPK M1 Topic A: Matching Objects GPK M1 Topic B: Sorting
Data & Probability (D)		
PK.D.1 Collect and organize categorical data.	**PK.D.1.1** Collect and organize information about objects and events in the environment.	GPK M1 Lessons 9–10: Arrange and count up to 3 objects in scattered and linear configurations. GPK M1 Lessons 15–16: Arrange and count up to 5 objects in scattered and linear configurations.
	PK.D.1.2 Use categorical data to create real-object graphs.	GPK M1 Lessons 9–10: Arrange and count up to 3 objects in scattered and linear configurations. GPK M1 Lessons 15–16: Arrange and count up to 5 objects in scattered and linear configurations.