

BELLEFONTE AREA SCHOOL DISTRICT
GRADE 3 SECOND MARKING PERIOD MATHEMATICS LEARNING OBJECTIVES

2.1 Numbers, Number Systems and Number Relationships

By the end of the second marking period, third grade students should be able to:

- 1. Demonstrate an understanding of the meanings, uses, and representations of numbers by:**
 - Reading, writing, and identifying whole numbers up to 100,000.
 - Reading, writing, and modeling decimals through hundredths using manipulatives.
- 2. Demonstrate an understanding of various ways to represent numbers** (not assessed during second marking period)
- 3. Demonstrate an understanding of the relationships between numbers by:**
 - Comparing and ordering whole numbers up to 1,000,000.
 - Ordering decimals through hundredths using manipulatives.

2.2 Computation and Estimation

By the end of the second marking period, third grade students should be able to:

- 1. Compute accurately by:**
 - Using basic facts to compute fact extensions such as $80 + 70$ or $7,000 + 6,000$.
 - Using manipulatives, mental arithmetic, paper-and-pencil algorithms, and calculators to solve problems involving the addition and subtraction of whole numbers and decimals in a money context.
 - Demonstrating automaticity with $\times 0$, $\times 1$, $\times 2$, $\times 5$, and $\times 10$ multiplication facts.
 - Using strategies to compute remaining facts up to 10×10 .
- 2. Make reasonable estimates by:**
 - Making reasonable estimates for whole number addition and subtraction problems.
- 3. Demonstrate an understanding of the meanings of operations by:**
 - Using repeated addition, arrays, and skip counting to model multiplication.
 - Using equal sharing to model division.

2.3 Measurement and Estimation

By the end of the second marking period, third grade students should be able to:

- 1. Demonstrate an understanding of measurement/Measure accurately by:**
 - Measuring length to the nearest $\frac{1}{2}$ inch & $\frac{1}{2}$ centimeter.
 - Describing and using strategies to measure the perimeter of polygons.
 - Counting unit squares to find the areas of rectangles.
 - Describing relationships between minutes in an hour, hours in a day, days in a week.
- 2. Demonstrate an understanding of reference frames/Use reference frames (i.e. clocks, calendar, thermometer)**
(not assessed during second marking period)

2.6 Statistics and Data Analysis & 2.7 Probability and Predictions

By the end of the second marking period, third grade students should be able to:

- 1. Select and create appropriate graphs of collected or given data** (not assessed during second marking period)
- 2. Analyze and interpret data** (not assessed during second marking period)
- 3. Demonstrate an understanding of probability/Apply basic concepts of probability by:**
 - Describing events using basic probability terms (e.g. certain, impossible).

2.8 Algebra and Functions, 2.10 Trigonometry, & 2.11 Calculus

By the end of the second marking period, third grade students should be able to:

- 1. Demonstrate an understanding of patterns and functions** (not assessed during second marking period)
- 2. Use symbols to represent and analyze situations by:**
 - Reading, writing and explaining number sentences using the symbols $+$, $-$, and $=$.
 - Applying the Commutative & Associative Properties of Addition, the Commutative Property of Multiplication, & the Multiplicative Identity.

2.9 Geometry

By the end of the second marking period, third grade students should be able to:

- 1. Demonstrate an understanding of the characteristics and properties of two- and three-dimensional shapes by:**
 - Identifying and drawing points, intersecting and parallel line segments and right angles.
 - Identifying and describing plane & solid figures (e.g. circles, polygons, cylinders, rectangular prisms, pyramids).
- 2. Apply transformations and symmetry in geometric situations** (not assessed during second marking period)