

PA Core Mathematics Standards – Cluster Heading Matrix

Trifold – Grades 4-5-6

| Domain | Grade 4 | Grade 5 | Grade 6 |
|---------------------------------------|--|---|--|
| Counting and Cardinality | | | |
| Operations and Algebraic Thinking | <ul style="list-style-type: none"> Use the four operations with whole numbers to solve problems. Gain familiarity with factors and multiples. Generate and analyze patterns. | <ul style="list-style-type: none"> Write and interpret numerical expressions. Analyze patterns and relationships. | |
| Number and Operations in Base Ten | <ul style="list-style-type: none"> Generalize place value understanding for multi-digit whole numbers. Use place value understanding and properties of operations to perform multi-digit arithmetic. | <ul style="list-style-type: none"> Understand the place value system. Perform operations with multi-digit whole numbers and with decimals to hundredths. | |
| Number and Operations—Fractions | <ul style="list-style-type: none"> Extend understanding of fraction equivalence and ordering. Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers. Understand decimal notation for fractions, and compare decimal fractions. | <ul style="list-style-type: none"> Use equivalent fractions as a strategy to add and subtract fractions. Apply and extend previous understandings of multiplication and division to multiply and divide fractions. | |
| Measurement and Data | <ul style="list-style-type: none"> Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit. Represent and interpret data. Geometric measurement: understand concepts of angle and measure angles. | <ul style="list-style-type: none"> Convert like measurement units within a given measurement system. Represent and interpret data. Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition. | |
| Ratios and Proportional Relationships | | | <ul style="list-style-type: none"> Understand ratio concepts and use ratio reasoning to solve problems. |
| The Number System | | | <ul style="list-style-type: none"> Apply and extend previous understandings of multiplication and division to divide fractions by fractions. Apply and extend previous understandings of numbers to the system of rational numbers. |
| Expressions and Equations | | | <ul style="list-style-type: none"> Apply and extend previous understandings of arithmetic to algebraic expressions. Reason about and solve one-variable equations and inequalities. Represent and analyze quantitative relationships between dependent and independent variables. |
| Functions | | | |

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|----------------------------|--|--|---|
| Geometry | <ul style="list-style-type: none"> • Draw and identify lines and angles, and classify shapes by properties of their lines and angles. | <ul style="list-style-type: none"> • Graph points on the coordinate plane to solve real world and mathematical problems. • Classify two-dimensional figures into categories based on their properties. | <ul style="list-style-type: none"> • Solve real-world and mathematical problems involving area, surface area, and volume. |
| Statistics and Probability | | | <ul style="list-style-type: none"> • Develop understanding of statistical variability. • Summarize and describe distribution. |