

TRUMBULL PUBLIC SCHOOLS
Trumbull, Connecticut

Mathematics

Grade 5

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Grade 5 Mathematics

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The Trumbull Board of Education, as a matter of policy, prohibits discrimination on the grounds of age, creed, religion, sex, race, color, handicap, political affiliation, marital status, sexual orientation, or national origin.

TRUMBULL CORE VALUES AND BELIEFS

Our mission states, “Trumbull Public Schools, in partnership with the community, strives to meet the educational needs of all students within a challenging and supportive academic environment that empowers each student to become a life-long learner and to live and participate in a democratic, diverse and global society.” Trumbull Public Schools believes in a shared, collaboratively created vision of success for all students in our district. We work throughout the year to ensure all instruction is in service of supporting students to achieve a shared vision of knowledge and skills.

- We believe that all individuals are capable of learning.
- We believe that all individuals should have the resources necessary to achieve success within a challenging curriculum.
- We believe that a family, school, and community partnership is essential to our success.
- We believe that a safe and orderly environment is critical to learning.
- We believe that there is strength in diversity and that all individuals are worthy of our respect and dignity.
- We believe that our school climate must be welcoming, caring, and supportive for all members of the learning community.
- We believe that a reflective evaluation of present practices and processes is necessary in order to plan for our future.

INTRODUCTION

The Elementary Math Curriculum was last revised in 2023 and was aligned to the State of Connecticut Common Core State Standards (CCSS). It includes specific grade level expectations and resources appropriate for this grade, making it a teacher-friendly instructional guide for ease in delivery. Appropriate professional development will further aid in fidelity to the implementation of the CCSS and assured use of the resources provided for instruction.

Trumbull Elementary Schools will provide all students access to a rigorous mathematics curriculum that will prepare them for success in an ever changing global society. Our students will learn to use mathematical reasoning and critical thinking to problem solve and communicate. This curriculum will include strong number sense as a foundation. All students will develop a strong mathematical voice where they will be able to transfer and discuss their foundational skills to problem solving skills. Our educators will be supported through professional development, meaningful feedback and opportunities for collaboration.

PHILOSOPHY

Success in mathematics depends upon active involvement in a variety of interrelated experiences. When students participate in stimulating learning opportunities, they can reach their full potential.

The Trumbull Mathematics Program embraces these goals for all students.

Successful mathematicians:

- develop and demonstrate a balanced understanding of mathematics as conceptual, procedural, and application of skills.
- make meaningful mathematical connections to their world through peer collaboration.
- communicate effectively using mathematical terminology, both independently and collaboratively.
- solve problems utilizing a variety of strategies.
- utilize technology as a tool to enhance the problem solving process.
- use sound mathematical reasoning by utilizing the power of conjecture and proof in their thinking.
- become reflective thinkers through continuous self evaluation.
- become independent, self motivated, lifelong learners.
- engage in robust conversations and peer to peer interactions.
- demonstrate perseverance while building stamina when faced with challenging tasks.
- embody a growth mindset.
- take ownership and communicate their understanding and purpose of their learning.
- extend their learning beyond the classroom.

The Trumbull Mathematics Program promotes equity by setting high expectations with strong support for all math students in a differentiated environment. Students are empowered to embrace the skills needed to become successful in the 21st century. Students expand their mathematical abilities by investigating real world phenomena. Through such experiences, students make real world math connections and discover that math can have more than one method for achieving a correct answer and they can truly appreciate the impact math has on the world in which they live.

GOALS: Major Focus Areas for Grade 5 Mathematics

1. Understand the place value system.
2. Perform operations with multi-digit whole numbers and decimals to hundredths.
3. Use equivalent fractions as a strategy to add and subtract fractions.
4. Apply and extend previous understandings of multiplication and division to multiply and divide fractions.
5. Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.
6. Graph points in the coordinate plane to solve real-world and mathematical problems.

Grade 5 Mathematics: Trimester 1 (61 days)

Unit Name: Grade 5 Trimester 1															
<p>Content and Skills</p> <p>Mathematical Practices: See Addendum for Mathematical Practices.</p> <p>Quantity, Measurement, and Data:</p> <ul style="list-style-type: none"> ● Convert like measurement units within a given measurement system. ● Represent and interpret data. <p>Numeration, Operations, and Algebraic Thinking:</p> <p>Operations and Algebraic Thinking</p> <ul style="list-style-type: none"> ● Write and interpret numerical expressions. <p>Number and Operations in Base Ten</p> <ul style="list-style-type: none"> ● Understand the place value system. ● Perform operations with multi-digit whole numbers and with decimals to hundredths. <p>Number and Operations-Fractions</p> <ul style="list-style-type: none"> ● Use equivalent fractions as a strategy to add and subtract fractions. <p>Geometry:</p> <ul style="list-style-type: none"> ● N/A 															
<p>Essential Question(s): Taken from the CCSS Mathematical Practices</p> <ul style="list-style-type: none"> ● What is the problem asking? Does this make sense? (MP1) ● Can I clearly explain my reasoning? Can I understand the reasoning of others? Do I agree or disagree? (MP3) ● Can I model my thinking using manipulatives, words, numbers or pictures? (MP4) ● Is my answer correct? How can I prove it mathematically? (MP6 and 7) <p>Focus Question(s): These will be content specific (i.e. explain how you arrived at an answer.)</p> <ul style="list-style-type: none"> ● Can you solve using a different strategy? ● Can you critique or agree with another person's strategy? 															
Common Core State Standards for Mathematics <i>(See Appendix for complete description)</i>	Time Allotment	Assured Learner Activities	Assessment												
<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="padding: 2px;">5.OA.1</td> <td style="padding: 2px;">5.NF.1</td> </tr> <tr> <td style="padding: 2px;">5.OA.2</td> <td style="padding: 2px;">5.NF.2</td> </tr> <tr> <td style="padding: 2px;">5.NBT.1</td> <td style="padding: 2px;">5.NF.2</td> </tr> <tr> <td style="padding: 2px;">5.NBT.2</td> <td style="padding: 2px;">5.MD.1</td> </tr> <tr> <td style="padding: 2px;">5.NBT.5</td> <td style="padding: 2px;">5.MD.2</td> </tr> <tr> <td style="padding: 2px;">5.NBT.6</td> <td></td> </tr> </table>	5.OA.1	5.NF.1	5.OA.2	5.NF.2	5.NBT.1	5.NF.2	5.NBT.2	5.MD.1	5.NBT.5	5.MD.2	5.NBT.6		70 minutes daily per Trumbull Board of Education Policy # 6112.2	<ul style="list-style-type: none"> ▪ Great Minds: Eureka Math² 	<ul style="list-style-type: none"> ▪ Classroom mathematical discourse ▪ Eureka Assessments/ Topic Quizzes ▪ i-Ready Diagnostic Screener
5.OA.1	5.NF.1														
5.OA.2	5.NF.2														
5.NBT.1	5.NF.2														
5.NBT.2	5.MD.1														
5.NBT.5	5.MD.2														
5.NBT.6															
Technology Competency Standards <i>(See Appendix for complete description)</i>															
2. Communicate and Collaborate 3. Research and Information Fluency 4. Critical Thinking 5. Digital Citizenship															

Vocabulary:

Module 1:

New: centigram, centiliter, dividend, exponent, exponential form, kiloliter, milligram, millimeter, power of 10

Academic Verbs: analyze, consider, evaluate

Familiar: centimeter, convert, distributive property, divisor, express, factor, kilogram, partial products, partial quotients, quotient, remainder, standard algorithm

Module 2:

New: minuend, subtrahend

Academic Verbs: conclude

Familiar: common denominator, denominator, equivalent fractions, fraction form, mixed number, numerator

Grade 5 Mathematics: Trimester 2 (60 Days)

Unit Name: Grade 5 Mathematics: Trimester 2					
<p>Content and Skills</p> <p>Mathematical Practices: See Addendum for Mathematical Practices.</p> <p>Quantity, Measurement, and Data:</p> <ul style="list-style-type: none"> • Convert like measurement units within a given measurement system. <p>Numeration, Operations, and Algebraic Thinking:</p> <p>Operations and Algebraic Thinking</p> <ul style="list-style-type: none"> • Write and interpret numerical expressions. <p>Number and Operations in Base Ten</p> <ul style="list-style-type: none"> • Understand the place value system. • Perform operations with multi-digit whole numbers and with decimals to hundredths. <p>Number and Operations - Fractions</p> <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. <p>Geometry: NA</p>					
<p>Essential Question(s): Taken from the CCSS Mathematical Practices</p> <ul style="list-style-type: none"> • What is the problem asking? Does this make sense? (MP1) • Can I clearly explain my reasoning? Can I understand the reasoning of others? Do I agree or disagree? (MP3) • Can I model my thinking using manipulatives, words, numbers or pictures? (MP4) <p>Focus Question(s): These will be content specific (i.e. explain how you arrived at an answer.)</p> <ul style="list-style-type: none"> • Can you solve using a different strategy? • Can you critique or agree with another person's strategy? 					
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<p>Technology Competency Standards <i>(See Appendix for description)</i></p> <p>2. Communicate and Collaborate 3. Research and Information Fluency 4. Critical Thinking 5. Digital Citizenship</p>					

Vocabulary:

Module 3:

New: (none)

Academic Verbs: demonstrate

Familiar: convert, cup, denominator, gallon, mixed number, numerator, ounce, pint, pound, product, quart, quotient, whole number

Module 4:

New: inequality, thousandths

Academic Verbs: (none)

Familiar: associative property of multiplication, (bundle, exchange, rename), commutative property of multiplication, compare, distributive property, expanded form, exponent, hundredths, long division, power of 10, round, tenths

Grade 5 Mathematics: Trimester 3 (60 Days)

Unit Name: Grade 5 Mathematics: Trimester 3															
<p>Content and Skills</p> <p>Mathematical Practices: See Addendum for Mathematical Practices.</p> <p>Quantity, Measurement, and Data:</p> <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. <p>Numeration, Operations, and Algebraic Thinking:</p> <p>Operations and Algebraic Thinking</p> <ul style="list-style-type: none"> ● Write and interpret numerical expressions. ● Analyze patterns and relationships. <p>Number and Operations - Fractions</p> <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. <p>Geometry:</p> <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. 															
<p>Essential Question(s): Taken from the CCSS Mathematical Practices</p> <ul style="list-style-type: none"> ▪ What is the problem asking? Does this make sense? (MP1) ▪ Can I clearly explain my reasoning? Can I understand the reasoning of others? Do I agree or disagree? (MP3) ▪ Can I model my thinking using manipulatives, words, numbers or pictures? (MP4) <p>Focus Question(s): These will be content specific (i.e. explain how you arrived at an answer.)</p> <ul style="list-style-type: none"> ▪ Can you solve using a different strategy? ▪ Can you critique or agree with another person's strategy? 															
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Vocabulary:

Module 5:

New: base, composite figure, cubic centimeter, cubic inch, cubic unit, kite, midpoint, plane, property, right rectangular prism, unit cube, volume

Academic Verbs: (none)

Familiar: acute angle, acute triangle, attribute, capacity, cube, diagonal, edge, equilateral triangle, face, figure, formula, height, intersect, isosceles triangle, line of symmetry, liquid volume, obtuse angle, obtuse triangle, parallel, parallelogram, perpendicular, quadrilateral, rectangle, rhombus, right angle, right triangle, square, square unit, straight angle, supplementary angles, three-dimensional figure, trapezoid, two-dimensional figure, unit square, vertex

Module 6:

New: axes, coordinate, coordinate plane, coordinate system, ordered pair, origin, x-axis, x-coordinate, y-axis, y-coordinate

Academic Verbs: (none)

Familiar: acute angle, angle, area, figure, graph, horizontal line, interval, length, line, line of symmetry, line segment, midpoint, number line, obtuse, operation, parallel, parallelogram, pattern, perimeter, perpendicular, plane, point, polygon, quadrilateral, ray, rectangle, scale, square, symmetry, term, tick mark, trapezoid, vertex, vertical line

INSTRUCTIONAL STRATEGIES

The curriculum writing team recognizes that these facilitation styles and routines are used in each unit. Within each unit is an outline for methods to reteach, support, and challenge all learners including multilingual.

Facilitation Styles	<ul style="list-style-type: none">▪ Direct instruction▪ Guided instruction▪ Group work▪ Partner work▪ Independent practice▪ Formative and summative assessments▪ Brainstorming
Routines	<ul style="list-style-type: none">▪ Math Chat▪ Sprints▪ Five Framing Questions▪ Always - Sometimes - Never▪ Co-Construction▪ Critique a Flawed Response▪ Numbered Heads▪ Stronger, Clearer Each Time▪ Take a Stand▪ Which One Doesn't Belong?

PRIMARY RESOURCE

<i>Title</i>	<i>Publisher</i>	<i>Date of Publication</i>
Eureka Math ²	<i>Great Minds</i>	2021

SUPPLEMENTARY MATERIALS, RESOURCES, and WEBSITES

Supplementary Manipulative Materials:

- Centimeter cubes
- Grid paper / graph paper
- One inch color tiles
- Dice
- Fraction bars
- Geoboards
- Geometric solids / Rectangular prism set
- Metersticks / yardsticks
- Number line
- Power Polygons
- Rulers
- Snap cubes / Unifix cubes
- Deci-disks / place-value disks
- White boards with markers and erasers
- Vertical math chart paper
- Protractors
- Patty paper
- Mathematical Practices poster
- Eureka Math² Talking Tools poster

Supplemental Resources:

<i>Title</i>	<i>Author</i>	<i>Publisher</i>	<i>Date Published</i>
<i>Investigations 2 Common Core Supplement</i>	<i>Susan Jo Russell Karen Economopoulos Keith Cochran</i>	<i>Scott Foresman</i>	<i>2012</i>

Websites:

- [Common Core State Standards for Mathematics](#)
- [National Council of Teachers of Mathematics](#)
- [Smarter Balanced Assessment Consortium](#)
- [Great Minds: Eureka Math²](#)
- [Khan Academy](#)
- [iReady Teacher Toolbox](#)
- [International Society for Technology in Education](#)
- [SFUSD Math Core Curriculum](#)

Connecticut Common Core State Standards – Mathematics – Grade 5

Operations and Algebraic Thinking - Write and interpret numerical expressions.

5.OA.A.1: Use parentheses, brackets, or braces in numerical expressions, and evaluate expressions with these symbols.

5.OA.A.2: Write simple expressions that record calculations with numbers, and interpret numerical expressions without evaluating them. *For example, express the calculation “add 8 and 7, then multiply by 2” as $2 \times (8 + 7)$. Recognize that $3 \times (18932 + 921)$ is three times as large as $18932 + 921$, without having to calculate the indicated sum or product.*

Analyze patterns and relationships.

5.OA.B.3: Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms. Form ordered pairs consisting of corresponding terms from the two patterns, and graph the ordered pairs on a coordinate plane. *For example, given the rule “Add 3” and the starting number 0, and given the rule “Add 6” and the starting number 0, generate terms in the resulting sequences, and observe that the terms in one sequence are twice the corresponding terms in the other sequence. Explain informally why this is so.*

Number and Operations in Base Ten - Understand the place value system.

5.NBT.A.1: Recognize that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and 1/10 of what it represents in the place to its left.

5.NBT.A.2: Explain patterns in the number of zeros of the product when multiplying a number by powers of 10, and explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10.

5.NBT.A.3: Read, write, and compare decimals to thousandths.

a. Read and write decimals to thousandths using base-ten numerals, number names, and expanded form, e.g., $347.392 = 3 \times 100 + 4 \times 10 + 7 \times 1 + 3 \times (1/10) + 9 \times (1/100) + 2 \times (1/1000)$.

b. Compare two decimals to thousandths based on meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.

5.NBT.A.4: Use place value understanding to round decimals to any place.

Perform operations with multi-digit whole numbers and with decimals to hundredths.

5.NBT.B.5: Fluently multiply multi-digit whole numbers using the standard algorithm.

5.NBT.B.6: Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors, using strategies based on place value, the properties of operations, and/or the relationship between multiplication and division. Illustrate and explain the calculation by using equations, rectangular arrays, and/or area models.

5.NBT.B.7: Add, subtract, multiply, and divide decimals to hundredths, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.

Number and Operations – Fractions - Use equivalent fractions as a strategy to add and subtract fractions.

5.NF.A.1: Add and subtract fractions with unlike denominators (including mixed numbers) by replacing given fractions with equivalent fractions in such a way as to produce an equivalent sum or difference of fractions with like denominators. *For example, $2/3 + 5/4 = 8/12 + 15/12 = 23/12$. (In general, $a/b + c/d = (ad + bc)/bd$.)*

5.NF.A.2: Solve word problems involving addition and subtraction of fractions referring to the same whole, including cases of unlike denominators, e.g., by using visual fraction models or equations to represent the problem. Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers. *For example, recognize an incorrect result $2/5 + 1/2 = 3/7$, by observing that $3/7 < 1/2$.*

Apply and extend previous understandings of multiplication and division to multiply and divide fractions.

5.NF.B.3: Interpret a fraction as division of the numerator by the denominator ($a/b = a \div b$). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, e.g., by using visual fraction models or equations to represent the problem. *For example, interpret $3/4$ as the result of dividing 3 by 4, noting that $3/4$ multiplied by 4 equals 3, and that when 3 wholes are shared equally among 4 people each person has a share of size $3/4$. If 9 people want to share a 50-pound sack of rice equally by weight, how many pounds of rice should each person get? Between what two whole numbers does your answer lie?*

5.NF.B.4: Apply and extend previous understandings of multiplication to multiply a fraction or whole number by a fraction.

a. Interpret the product $(a/b) \times q$ as a parts of a partition of q into b equal parts; equivalently, as the result of a sequence of operations $a \times q \div b$. *For example, use a visual fraction model to show $(2/3) \times 4 = 8/3$, and create a story context for this equation. Do the same with $(2/3) \times (4/5) = 8/15$. (In general, $(a/b) \times (c/d) = ac/bd$.)*

b. Find the area of a rectangle with fractional side lengths by tiling it with unit squares of the appropriate unit fraction side lengths, and show that the area is the same as would be found by multiplying the side lengths. Multiply fractional side lengths to find areas of rectangles, and represent fraction products as rectangular areas.

5.NF.B.5: Interpret multiplication as scaling (resizing), by:

a. Comparing the size of a product to the size of one factor on the basis of the size of the other factor, without performing the indicated multiplication.

b. Explaining why multiplying a given number by a fraction greater than 1 results in a product greater than the given number (recognizing multiplication by whole numbers greater than 1 as a familiar case); explaining why multiplying a given number by a fraction less than 1 results in a product smaller than the given number; and relating the principle of fraction equivalence $a/b = (n \times a)/(n \times b)$ to the effect of multiplying a/b by 1.

5.NF.B.6: Solve real world problems involving multiplication of fractions and mixed numbers, e.g., by using visual fraction models or equations to represent the problem.

5.NF.B.7: Apply and extend previous understandings of division to divide unit fractions by whole numbers and whole numbers by unit fractions. (Note: Students able to multiply fractions in general can develop strategies to divide fractions in general, by reasoning about the relationship between multiplication and division. But division of a fraction by a fraction is not a requirement at this grade.)

a. Interpret division of a unit fraction by a non-zero whole number, and compute such quotients. For example, create a story context for $(1/3) \div 4$, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that $(1/3) \div 4 = 1/12$ because $(1/12) \times 4 = 1/3$.

b. Interpret division of a whole number by a unit fraction, and compute such quotients. For example, create a story context for $4 \div (1/5)$, and use a visual fraction model to show the quotient. Use the relationship between multiplication and division to explain that $4 \div (1/5) = 20$ because $20 \times (1/5) = 4$.

c. Solve real world problems involving division of unit fractions by non-zero whole numbers and division of whole numbers by unit fractions, e.g., by using visual fraction models and equations to represent the problem. For example, how much chocolate will each person get if 3 people share $1/2$ lb. of chocolate equally? How many $1/3$ -cup servings are in 2 cups of raisins?

Measurement and Data - Convert like measurement units within a given measurement system.

5.MD.A.1: Convert among different-sized standard measurement units within a given measurement system (e.g., convert 5 cm to 0.05 m), and use these conversions in solving multi-step, real world problems.

Represent and interpret data.

5.MD.B.2: Make a line plot to display a data set of measurements in fractions of a unit ($1/2, 1/4, 1/8$). Use operations on fractions for this grade to solve problems involving information presented in line plots. *For example, given different measurements of liquid in identical beakers, find the amount of liquid each beaker would contain if the total amount in all the beakers were redistributed equally.*

Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.

5.MD.C.3: Recognize volume as an attribute of solid figures and understand concepts of volume measurement.

a. A cube with side length 1 unit, called a “unit cube,” is said to have “one cubic unit” of volume, and can be used to measure volume.

b. A solid figure which can be packed without gaps or overlaps using n unit cubes is said to have a volume of n cubic units.

5.MD.C.4: Measure volumes by counting unit cubes, using cubic cm, cubic in, cubic ft, and improvised units.

5.MD.C.5: Relate volume to the operations of multiplication and addition and solve real world and mathematical problems involving volume.

a. Find the volume of a right rectangular prism with whole-number side lengths by packing it with unit cubes, and show that the volume is the same as would be found by multiplying the edge lengths, equivalently by multiplying the height by the area of the base. Represent threefold whole-number products as volumes, e.g., to represent the associative property of multiplication.

b. Apply the formulas $V = l \times w \times h$ and $V = b \times h$ for rectangular prisms to find volumes of right rectangular prisms with whole-number edge lengths in the context of solving real world and mathematical problems.

c. Recognize volume as additive. Find volumes of solid figures composed of two non-overlapping right rectangular prisms by adding the volumes of the non-overlapping parts, applying this technique to solve real world problems.

Geometry - Graph points on the coordinate plane to solve real-world and mathematical problems.

5.G.A.1: Use a pair of perpendicular number lines, called axes, to define a coordinate system, with the intersection of the lines (the origin) arranged to coincide with the 0 on each line and a given point in the plane located by using an ordered pair of numbers, called its coordinates. Understand that the first number indicates how far to travel from the origin in the direction of one axis, and the second number indicates how far to travel in the direction of the second axis, with the convention that the names of the two axes and the coordinates correspond (e.g., x -axis and x -coordinate, y -axis and y -coordinate).

5.G.A.2: Represent real world and mathematical problems by graphing points in the first quadrant of the coordinate plane, and interpret coordinate values of points in the context of the situation.

Classify two-dimensional figures into categories based on their properties.

5.G.B.3: Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category. *For example, all rectangles have four right angles and squares are rectangles, so all squares have four right angles.*

5.G.B.4: Classify two-dimensional figures in a hierarchy based on properties.

Mathematical Practices

- 1. Make sense of problems and persevere in solving them.**
- 2. Reason abstractly and quantitatively.**
- 3. Construct viable arguments and critique the reasoning of others.**
- 4. Model with mathematics.**
- 5. Use appropriate tools strategically.**
- 6. Attend to precision.**
- 7. Look for and make use of structure.**
- 8. Look for and express regularity in repeated reasoning.**

Technology Competency Standards

1. Creativity and Innovation - Students demonstrate creative thinking, construct knowledge, and develop innovative products and processes using technology.
2. Communication and Collaboration - Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.
3. Research and Information Fluency - Students apply digital tools to gather, evaluate, and use information.
4. Critical Thinking, Problem Solving, and Decision Making - Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.
5. Digital Citizenship - Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.
6. Technology Operations and Concepts – Students demonstrate a sound understanding of technology concepts, systems, and operations.