A Correlation of

enVision® Mathematics

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To the

South Carolina College- and Career-Ready Standards for Mathematics 2015 Grade 5

SAVVAS

South Carolina College- and Career-Ready Standards for Mathematics Grade 5	enVision Mathematics South Carolina, ©2021 Grade 5
Mathematical Process Standards	
1. Make sense of problems and persevere in solving them.	**enVision Mathematics** provides numerous instructional opportunities to help students develop proficiency in the math practices. To get students off to a good start on all eight practices, use the Math Practices and Problem Solving Handbook pages at SavvasRealize.com, along with the Math Practices Posters, and supporting Math Practices Animations. Each lesson begins with Problem-Based Learning, an activity in which students interact with their peers and teachers to make sense of and decide on a workable solution for a situation. Another feature of each lesson is the set of problem-solving exercises in which students persevere by applying different skills and strategies to solve problems. Each Problem-Solving Lesson provides instruction and practice focused on a specific math practice.
a. Relate a problem to prior knowledge.	**SE/TE:** 4A, 54, 68, 80A, 82, 94, 112, 138, 180A, 186
b. Recognize there may be multiple entry points to a problem and more than one path to a solution.	**SE/TE:** 90, 94, 138, 186, 211, 358, 398, 514, 606
c. Analyze what is given, what is not given, what is being asked, and what strategies are needed, and make an initial attempt to solve a problem.	**SE/TE:** 68, 112, 138, 150, 154, 156, 208, 210, 211, 212
d. Evaluate the success of an approach to solve a problem and refine it if necessary.	**SE/TE:** 94, 138, 150, 210, 211, 286, 366, 367, 578, 607

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2. Reason both contextually and abstractly.	**enVision Mathematics** provides scaffolded instruction to help students develop both quantitative and abstract reasoning. In the Visual Learning Bridge, students can see how to represent a given situation numerically or algebraically. They will have opportunities later in the lesson to reason abstractly as they endeavor to represent situations symbolically. Reasonableness exercises remind students to compare their work to the original situation. Reasoning problems throughout the exercise sets focus students' attention on the structure or meaning of an operation, for example, rather than merely the solution.
a. Make sense of quantities and their relationships in mathematical and real-world situations.	**SE/TE:** 14, 46, 80C, 86, 134, 164, 180C, 202, 206, 212
b. Describe a given situation using multiple mathematical representations.	**SE/TE:** 14, 134, 202, 234, 242, 246, 250, 346, 354, 406
c. Translate among multiple mathematical representations and compare the meanings each representation conveys about the situation.	**SE/TE:** 14, 50, 134, 242, 251, 406, 434, 438, 490, 494
d. Connect the meaning of mathematical operations to the context of a given situation.	**SE/TE:** 134, 202, 238, 250, 286, 310, 316, 354, 390, 410

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3. Use critical thinking skills to justify mathematical reasoning and critique the reasoning of others.	Consistent with a focus on reasoning and sense-making is a focus on critical reasoning—argumentation and critique of arguments. In **enVision Mathematics,** the Problem-Based Learning affords students opportunities to share with classmates their thinking about problems, their solution methods, and their reasoning about the solutions. Many exercises found throughout the program specifically call for students to justify or explain their solutions. The ability to articulate a clear explanation for a process is a stepping stone to critical analysis and reasoning of both the student's own processes and those of others.
a. Construct and justify a solution to a problem.	**SE/TE:** 4B, 10, 24, 46, 48, 52, 80B, 84, 100, 110
b. Compare and discuss the validity of various reasoning strategies.	**SE/TE:** 4B, 80B, 180B, 210, 234, 268B, 268C, 384B, 386, 456B
c. Make conjectures and explore their validity.	**SE/TE:** 4A, 50, 80A, 180A, 268A, 306, 336, 384A, 456A, 456C
d. Reflect on and provide thoughtful responses to the reasoning of others.	**SE/TE:** 4B, 22, 26, 50, 54, 58, 68, 80B, 82, 86
4. Connect mathematical ideas and real-world situations through modeling.	Students using **enVision Mathematics** are introduced to mathematical modeling in the early grades. They first use manipulatives and drawings and then equations to model addition and subtraction situations. The Visual Learning Bridge and Visual Learning Animation Plus often present real-world situations, and students are shown how these can be modeled mathematically. In later grades, students expand their modeling skills to include representations such as tables and graphs, as well as equations.

South Carolina College- and Career-Ready Standards for Mathematics Grade 5	enVision Mathematics South Carolina, ©2021 Grade 5
a. Identify relevant quantities and develop a model to describe their relationships.	**SE/TE:** 66, 68, 92, 102, 162, 163, 164, 200, 212, 316
b. Interpret mathematical models in the context of the situation.	**SE/TE:** 96, 102, 110, 148, 194, 284, 314, 338, 346, 394
c. Make assumptions and estimates to simplify complicated situations.	**SE/TE:** 4B, 66, 67, 80B, 180B, 268B, 315, 384B, 456B, 536B
d. Evaluate the reasonableness of a model and refine if necessary.	**SE/TE:** 66, 80C, 180C, 268C, 314, 384C, 456C, 536C, 592C
5. Use a variety of mathematical tools effectively and strategically.	Students become fluent in the use of a wide assortment of tools ranging from physical objects, including manipulatives, rulers, protractors, and even pencil and paper, to digital tools, such as Online Math Tools and computers. As students become more familiar with the tools available to them, they are able to begin making decisions about which tools are most helpful in a particular situation.
a. Select and use appropriate tools when solving a mathematical problem.	**SE/TE:** 474, 475, 476, 592C, 608
b. Use technological tools and other external mathematical resources to explore and deepen understanding of concepts.	**SE/TE:** 198, 238, 274, 294, 302, 474, 475, 476, 580, 592C
6. Communicate mathematically and approach mathematical situations with precision.	Students are expected to use mathematical terms and symbols with precision. Key terms and concepts are highlighted in each lesson. The Problem-Based Learning activity provides repeated opportunities for students to use precise language to explain their solution paths while solving problems. In the Convince Me! feature, students revisit these key terms or concepts and provide explicit definitions or explanations.
a. Express numerical answers with the degree of precision appropriate for the context of a situation.	**SE/TE:** 4C, 22, 116, 134, 146, 184, 212, 252, 342, 364

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b. Represent numbers in an appropriate form according to the context of the situation.	**SE/TE:** 4C, 62, 116, 146, 184, 212, 252, 342, 392, 444
c. Use appropriate and precise mathematical language.	**SE/TE:** 4C, 32, 62, 106, 116, 146, 518, 523, 524, 552
d. Use appropriate units, scales, and labels.	**SE/TE:** 184, 252, 392, 500, 518, 522, 523, 524
7. Identify and utilize structure and patterns.	Students are prompted to look for repetition in computations to help them develop shortcuts and become more efficient problem solvers. Students are reminded to think about problems they have encountered previously that may share features or processes. They are encouraged to draw on the solution plan developed for such problems, and, as their mathematical thinking matures, to look for and apply generalizations to similar situations. The Problem-Based Learning activities offer students opportunities to look for regularity in the way operations behave. Students are encouraged to look for structure as they develop solution plans. As students mature in their mathematical thinking, they look for structure in numerical operations by focusing on place value and properties of operations. This focus on looking for and recognizing structure enables students to draw from patterns as they formalize their thinking about the structure of operations.
a. Recognize complex mathematical objects as being composed of more than one simple object.	**SE/TE: SE/TE:** 337, 339-340, 457, 509,
b. Recognize mathematical repetition in order to make generalizations.	**SE/TE:** 58, 142, 158, 282, 290, 414, 415, 416, 490, 494
c. Look for structures to interpret meaning and develop solution strategies.	**SE/TE:** 6. 18, 26, 30, 31, 32, 62, 80C, 130, 154

South Carolina College- and Career-Ready Standards for Mathematics Grade 5	enVision Mathematics South Carolina, ©2021 Grade 5
Content Standards for Mathematics	
Number Sense and Base Ten	
5.NSBT.1 Understand that, in a multi-digit whole number, a digit in one place represents 10 times what the same digit represents in the place to its right, and represents 110 times what the same digit represents in the place to its left.	**SE:** 9–12, 13–16, 81–84 **TE:** 9A–12B, 13A–16B, 81A–84B
5.NSBT.2 Use whole number exponents to explain:	
a. patterns in the number of zeroes of the product when multiplying a number by powers of 10;	**SE:** 5–8, 81–84, 129–132, 229–232, 501–504, 505–508, 509–512 **TE:** 5A–8B, 81A–84B, 129A–132B, 229A–232B, 501A–504B, 505A–508B, 509A–512B
b. patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10.	**SE:** 129–132, 229–232, 501–504, 505–508, 509–512 **TE:** 129A–132B, 229A–232B, 501A–504B, 505A–508B, 509A–512B
5.NSBT.3 Read and write decimals in standard and expanded form. Compare two decimal numbers to the thousandths using the symbols >, =, or <.	**SE:** 13–16, 17–20, 21–24, 29–32 **TE:** 13A–16B, 17A–20B, 21A–24B, 29A–32B
5.NSBT.4 Round decimals to any given place value within thousandths.	**SE:** 25–28, 45–48, 49–52 **TE:** 25A–28B, 45A–48B, 49A–52B
5.NSBT.5 Fluently multiply multi-digit whole numbers using strategies to include a standard algorithm.	**SE:** 85–88, 89–92, 93–96, 97–100, 101–104, 105–108, 109–112, 113–116, 489–492, 493–496, 497–500, 513–516, 517–520, 521–524 **TE:** 85A–88B, 89A–92B, 93A–96B, 97A–100B, 101A–104B, 105A–108B, 109A–112B, 113A–116B, 489A–492B, 493A–496B, 497A–500B, 513A–516B, 517A–520B, 521A–524B

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5.NSBT.6 Divide up to a four-digit dividend by a two-digit divisor, using strategies based on place value, the properties of operations, and the relationship between multiplication and division.	**SE:** 181–184, 185–188, 189–192, 193–196, 197–200, 201–204, 205–208, 209–212, 489–492, 493–496, 497–500, 513–516 **TE:** 181A–184B, 185A–188B, 189A–192B, 193A–196B, 197A–200B, 201A–204B, 205A–208B, 209A–212B, 489A–492B, 493A–496B, 497A–500B, 513A–516B
5.NSBT.7 Add, subtract, multiply, and divide decimal numbers to hundredths using concrete area models and drawings.	**SE:** 45–48, 49–52, 53–56, 57–60, 61–64, 65–68, 129–132, 133–136, 137–140, 141–144, 145–148, 149–152, 153–156, 157–160, 161–164, 229–232, 233–236, 237–240, 241–244, 245–248, 249–252 **TE:** 45A–48B, 49A–52B, 53A–56B, 57A–60B, 61A–64B, 65A–68B, 129A–132B, 133A–136B, 137A–140B, 141A–144B, 145A–148B, 149A–152B, 153A–156B, 157A–160B, 161A–164B, 229A–232B, 233A–236B, 237A–240B, 241A–244B, 245A–248B, 249A–252B
Number Sense and Operations – Fractions	
5.NSF.1 Add and subtract fractions with unlike denominators (including mixed numbers) using a variety of models, including an area model and number line.	**SE:** 269–272, 273–276, 277–280, 281–284, 289–292, 293–296, 301–304, S1-S6 Lesson SC-1, S7-S12 Lesson SC-2 **TE:** 269A–272B, 273A–276B, 277A–280B, 281A–284B, 289A–292B, 293A–296B, 301A–304B, S1A-S6B Lesson SC-1, S7A-S12B Lesson SC-2
5.NSF.2 Solve real-world problems involving addition and subtraction of fractions with unlike denominators.	**SE:** 269–272, 272–276, 277–280, 281–284, 285–288, 289–292, 293–296, 297–300, 301–304, 305–308, 309–312, 313–316, 429–432, 433–436, 437–440, 441–444 **TE:** 269A–272B, 272A–276B, 277A–280B, 281A–284B, 285A–288B, 289A–292B, 293A–296B, 297A–300B, 301A–304B, 305A–308B, 309A–312B, 313A–316B, 429A–432B, 433A–436B, 437A–440B, 441A–444B

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5.NSF.3 Understand the relationship between fractions and division of whole numbers by interpreting a fraction as the numerator divided by the denominator (i.e., $a/b=a\div b$).	**SE:** 385–388, 389–392 **TE:** 385A–388B, 389A–392B
5.NSF.4 Extend the concept of multiplication to multiply a fraction or whole number by a fraction.	
a. Recognize the relationship between multiplying fractions and finding the areas of rectangles with fractional side lengths;	**SE:** 353–356 **TE:** 353A–356B
b. Interpret multiplication of a fraction by a whole number and a whole number by a fraction and compute the product;	**SE:** 333–336, 337–340, 341–344 **TE:** 333A–336B, 337A–340B, 341A–344B
c. Interpret multiplication in which both factors are fractions less than one and compute the product.	**SE:** 345–348, 349–352 **TE:** 345A–348B, 349A–352B
5.NSF.5 Justify the reasonableness of a product when multiplying with fractions.	
a. Estimate the size of the product based on the size of the two factors;	**SE:** 361–364 **TE:** 361A–364B
b. Explain why multiplying a given number by a number greater than 1 (e.g., improper fractions, mixed numbers, whole numbers) results in a product larger than the given number;	**SE:** 361–364 **TE:** 361A–364B
c. Explain why multiplying a given number by a fraction less than 1 results in a product smaller than the given number;	**SE:** 361–364 **TE:** 361A–364B
d. Explain why multiplying the numerator and denominator by the same number has the same effect as multiplying the fraction by 1.	**SE:** 361–364 **TE:** 361A–364B
5.NSF.6 Solve real-world problems involving multiplication of a fraction by a fraction, improper fraction and a mixed number.	**SE:** 333–336, 337–340, 357–360, 365–368, 437–440 **TE:** 333A–336B, 337A–340B, 357A–360B, 365A–368B, 437A–440B

South Carolina College- and Career-Ready Standards for Mathematics Grade 5	enVision Mathematics South Carolina, ©2021 Grade 5
5.NSF.7 Extend the concept of division to divide unit fractions and whole numbers by using visual fraction models and equations.	
a. Interpret division of a unit fraction by a non-zero whole number and compute the quotient;	**SE:** 401–404, 405–408, 413–416 **TE:** 401A–404B, 405A–408B, 413A–416B
b. Interpret division of a whole number by a unit fraction and compute the quotient.	**SE:** 393–396, 397–400, 405–408, 409–412 **TE:** 393A–396B, 397A–400B, 405A–408B, 409A–412B
5.NSF.8 Solve real-world problems involving division of unit fractions and whole numbers, using visual fraction models and equations.	**SE:** 393–396, 397–400, 401–404, 405–408, 409–412 **TE:** 393A–396B, 397A–400B, 401A–404B, 405A–408B, 409A–412B
Algebraic Thinking and Operations	
5.ATO.1 Evaluate numerical expressions involving grouping symbols (i.e., parentheses, brackets, braces).	**SE:** 537–540, 541–544, 549–552 **TE:** 537A–540B, 541A–544B, 549A–552B
5.ATO.2 Translate verbal phrases into numerical expressions and interpret numerical expressions as verbal phrases.	**SE:** 541–544, 545–548 **TE:** 541A–544B, 545A–548B
5.ATO.3 Investigate the relationship between two numerical patterns.	
a. Generate two numerical patterns given two rules and organize in tables;	**SE:** 593–596, 597–600, 601–604, 605–608 **TE:** 593A–596B, 597A–600B, 601A–604B, 605A–608B
b. Translate the two numerical patterns into two sets of ordered pairs;	**SE:** 601–604, 605–608, **TE:** 601A–604B, 605A–608B
c. Graph the two sets of ordered pairs on the same coordinate plane;	**SE:** 601–604, 605–608 **TE:** 601A–604B, 605A–608B

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d. Identify the relationship between the two numerical patterns.	**SE:** 593–596, 597–600, 601–604, 605–608, **TE:** 593A–596B, 597A–600B, 601A–604B, 605A–608B
Geometry	
5.G.1 Define a coordinate system.	
a. The x- and y- axes are perpendicular number lines that intersect at 0 (the origin);	**SE:** 565–568, 569–572, 577–580 **TE:** 565A–568B, 569A–572B, 577A–580B
b. Any point on the coordinate plane can be represented by its coordinates;	**SE:** 565–568, 569–572, 577–580 **TE:** 565A–568B, 569A–572B, 577A–580B
c. The first number in an ordered pair is the x-coordinate and represents the horizontal distance from the origin;	**SE:** 565–568, 569–572, 577–580 **TE:** 565A–568B, 569A–572B, 577A–580B
d. The second number in an ordered pair is the y-coordinate and represents the vertical distance from the origin.	**SE:** 565–568, 569–572, 577–580 **TE:** 565A–568B, 569A–572B, 577A–580B
5.G.2 Plot and interpret points in the first quadrant of the coordinate plane to represent real-world and mathematical situations.	**SE:** 569–572, 573–576, 577–580, 601–604 **TE:** 569A–572B, 573A–576B, 577A–580B, 601A–604B
5.G.3 Understand that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category.	**SE:** 621–624, 625–628, 629–632, 633–636 **TE:** 621A–624B, 625A–628B, 629A–632B, 633A–636B
5.G.4 Classify two-dimensional figures in a hierarchy based on their attributes.	**SE:** 621–624, 625–628, 629–632, 633–636 **TE:** 621A–624B, 625A–628B, 629A–632B, 633A–636B

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Measurement and Data Analysis	
5.MDA.1 Convert measurements within a single system of measurement: customary (i.e., in., ft., yd., oz., lb., sec., min., hr.) or metric (i.e., mm, cm, m, km, g, kg, mL, L) from a larger to a smaller unit and a smaller to a larger unit.	**SE:** 489–492, 493–496, 497–500, 501–504, 505–508, 509–512, 513–516, 517–520, 521–524 **TE:** 489A–492B, 493A–496B, 497A–500B, 501A–504B, 505A–508B, 509A–512B, 513A–516B, 517A–520B, 521A–524B
5.MDA.2 Create a line plot consisting of unit fractions and use operations on fractions to solve problems related to the line plot.	**SE:** 429–432, 433–436, 437–440, 441–446 **TE:** 429A–432B, 433A–436B, 437A–440B, 441A-446B
5.MDA.3 Understand the concept of volume measurement.	
a. Recognize volume as an attribute of right rectangular prisms;	**SE:** 457–460, 461–464, 473–476, **TE:** 457A–460B, 461A–464B, 473A–476B
b. Relate volume measurement to the operations of multiplication and addition by packing right rectangular prisms and then counting the layers of standard unit cubes;	**SE:** 457–460, 461–464, 473–476, **TE:** 457A–460B, 461A–464B, 473A–476B
c. Determine the volume of right rectangular prisms using the formula derived from packing right rectangular prisms and counting the layers of standard unit cubes.	**SE:** 461–464, 465–468, 469–472, 473–476 **TE:** 461A–464B, 465A–468B, 469A–472B, 473A–476B
5.MDA.4 Differentiate among perimeter, area and volume and identify which application is appropriate for a given situation.	**SE:** S15-S20 Lesson SC-3, **TE:** S15A-S20B Lesson SC-3