**COURSE DESCRIPTION**

**Course Title:** Mathematics 5

**Course Number:** 08523

**Course Description:** In Grade 5, instructional time should focus on eleven critical areas: (1) write and interpret numerical expressions; (2) analyze patterns and relationships; (3) understand the place value system; (4) perform operations with multi-digit whole numbers and with decimals to hundredths; (5) use equivalent fractions as a strategy to add and subtract fractions; (6) apply and extend previous understandings of multiplication and division to multiply and divide fractions; (7) convert like measurement units within a given measurement system; (8) Represent and interpret data; (9) geometric measurement: understand concepts of volume and relate volume to multiplication and to addition; (10) graph points on the coordinate plane to solve real world and mathematical problems; and (11) classify two-dimensional figures into categories based on their properties.

**Suggested Grade Level**: Grade 5

**Length of Course:** Two Semesters

**Units of Credit:** None

**PDE Certification and Staffing Policies and Guidelines (CSPG) Required Teacher Certifications:**

CSPG 70 Grades 4-8

To find the CSPG information, go to [CSPG](https://www.education.pa.gov/Educators/Certification/Staffing%20Guidelines/Pages/default.aspx)

**Certification verified by the WCSD Human Resources Department:** [x] Yes [ ] No

**WCSD STUDENT DATA SYSTEM INFORMATION**

**Course Level:** Academic

**Mark Types:** Check all that apply.

[x] F – Final Average [x] MP – Marking Period [ ] EXM – Final Exam

**GPA Type**: [x]  GPAEL-GPA Elementary [ ]  GPAML-GPA for Middle Level [ ]  NHS-National Honor Society

[ ]  UGPA-Non-Weighted Grade Point Average [ ]  GPA-Weighted Grade Point Average

**State Course Code**: 02035

To find the State Course Code, go to [State Course Code](https://nces.ed.gov/forum/sced.asp), download the Excel file for *SCED*, click on SCED 6.0 tab, and chose the correct code that corresponds with the course.

**TEXTBOOKS AND SUPPLEMENTAL MATERIALS**

**Board Approved Textbooks, Software, and Materials:**

**Title:**  enVision Math 5th Grade

**Publisher:** Pearson

**ISBN #:**  9780768573466

**Copyright Date:** 2020

**WCSD Board Approval Date:** 3/8/2021

**Supplemental Materials:**

**Curriculum Document**

**WCSD Board Approval:**

**Date Finalized:** 1/18/2021

**Date Approved:**  3/8/2021

**Implementation Year:** 2021-2022

**SPECIAL EDUCATION, 504, and GIFTED REQUIREMENTS**

The teacher shall make appropriate modifications to instruction and assessment based on a student’s Individual Education Plan (IEP), Chapter 15 Section 504 Plan (504), and/or Gifted Individual Education Plan (GIEP).

**SCOPE AND SEQUENCE OF CONTENT, CONCEPTS, AND SKILLS**

| **Performance Indicator** | **PA Core Standard and/or Eligible Content** | **Month Taught and Assessed for Mastery**  |
| --- | --- | --- |
| **Apply place value to show an understanding of operations and rounding as they pertain to whole numbers and decimal** | **CC.2.1.5.B.1** | September |
| Demonstrate understanding of place-value of whole numbers and decimals. | M05.A-T.1.1 | September |
| Compare quantities or magnitudes of numbers. | M05.A-T.1.1 | September |
| Demonstrate an understanding that in a multi-digit number. | M05.A-T.1.1.1 | September |
| Explain patterns in the number of zeros of the product when multiplying a number by powers of 10. | M05.A-T.1.1.2 | September |
| Explain patterns in the placement of the decimal point when a decimal is multiplied or divided by a power of 10 | M05.A-T.1.1.2 | September |
| Use whole-number exponents to denote powers of 10. | M05.A-T.1.1.2 | SeptemberOctober |
| Read and write decimals to thousandths using base-ten numerals, word form, and expanded form | M05.A-T.1.1.3 | September |
| Compare two decimals to thousandths based on meanings of the digits in each place using >, =, and < symbols. | M05.A-T.1.1.4 | September |
| Round decimals to any place (limit rounding to ones, tenths, hundredths, or thousandths place). | M05.A-T.1.1.5 | September |
| **Extend an understanding of operations with whole numbers to perform operations including decimals.**  | **CC.2.1.5.B.2** | OctoberDecember |
| Perform operations with multi-digit whole numbers and with decimals to hundredths | M05.A-T.2 | OctoberDecember |
| Use whole numbers and decimals to compute accurately. | M05.A-T.2.1 | OctoberDecember |
| Multiply multi-digit whole numbers. | M05.A-T.2.1.1 | November |
| Find whole-number quotients of whole numbers with up to four-digit dividends and two-digit divisors. | M05.A-T.2.1.2 | November |
| Add, subtract, multiply, and divide decimals to hundredths (no divisors with decimals). | M05.A-T.2.1.3 | November |
| **Use the understanding of equivalency to add and subtract fractions.** | **CC.2.1.5.C.1** | DecemberJanuary |
| Use equivalent fractions as a strategy to add and subtract fractions. | M05.A-F.1 | DecemberJanuary |
| Solve addition and subtraction problems involving fractions. | M05.A-F.1.1 | DecemberFebruary |
| Add and subtract fractions with unlike denominators. | M05.A-F.1.1.1 | JanuaryFebruary |
| **Apply and extend previous understandings of multiplication and division to multiply and divide fractions.** | **CC.2.1.5.C.2** | JanuaryFebruary |
| Solve multiplication and division problems involving fractions and whole numbers. | M05.A-F.2.1 | JanuaryFebruary |
| Solve word problems involving division of whole numbers leading to answers in the form of fraction | M05.A-F.2.1.1 | February |
| Multiply a fraction (including mixed numbers) by a fraction. | M05.A-F.2.1.2 | JanuaryFebruary |
| Demonstrate an understanding of multiplication as scaling (resizing). | M05.A-F.2.1.3 | March |
| Divide unit fractions by whole numbers and whole numbers by unit fractions. | M05.A-F.2.1.4 | JanuaryFebruary |
| **Interpret and evaluate numerical expressions using order of operations.** | **CC.2.2.5.A.1** | March |
| Analyze and complete calculations by applying the order of operations. | M05.B-O.1.1 | March |
| Use multiple grouping symbols (parentheses, brackets, or braces) in numerical expressions and evaluate expressions containing these symbols. | M05.B-O.1.1.1 | March |
| Write simple expressions that model calculations with numbers and interpret numerical expressions without evaluating them. | M05.B-O.1.1.2 | March |
| **Analyze patterns and relationships using two rules.** | **CC.2.2.5.A.4** | April |
| Create, extend, and analyze patterns. | M05.B-O.2.1 | April |
| Generate two numerical patterns using two given rules. | M05.B-O.2.1.1 | April |
| Identify apparent relationships between corresponding terms of two patterns with the same starting numbers that follow different rule | M05.B-O.2.1.2 | April |
| **Graph points in the first quadrant on the coordinate plane and interpret these points when solving real world and mathematical problems.** | **CC.2.3.5.A.1** | April |
| Identify parts of a coordinate grid. | M05.C-G.1.1 | April |
| Interpret points given an ordered pair | M05.C-G.1.1 | April |
| Identify parts of the coordinate plane (x-axis, y-axis, and the origin) and the ordered pair (x-coordinate and y-coordinate). | M05.C-G.1.1.1 | April |
| Represent real-world and mathematical problems by plotting points in quadrant I of the coordinate plane. | M05.C-G.1.1.2 | April |
| Interpret coordinate values of points in the context of the situation. | M05.C-G.1.1.2 | April |
| **Classify two-dimensional figures into categories based on an understanding of their properties.** | **CC.2.3.5.A.2** | AprilMay |
| Use basic properties to classify two-dimensional figures. | M05.C-G.2.1 | AprilMay |
| Classify two-dimensional figures in a hierarchy based on properties. | M05.C-G.2.1 | MayMay |
| **Solve problems using conversions within a given measurement system** | **CC.2.4.5.A.1** | March |
| Solve problems using simple conversions. | M05.D-M.1.1 | March |
| Convert between different-sized measurement units within a given measurement system. | M05.D-M.1.1.1 | March |
| **Represent and interpret data using appropriate scale.** | **CC.2.4.5.A.2** | March |
| **Solve problems involving computation of fractions using information provided in a line plot.** | **CC.2.4.5.A.4** | March |
| Organize, display, and answer questions based on data. | M05.D-M.2.1 | March |
| Solve problems involving computation of fractions by using information presented in line plots. | M05.D-M.2.1.1 | March |
| Display and interpret data shown in tallies, tables, charts, pictographs, bar graphs, and line graphs, and use a title, appropriate scale, and labels. | M05.D-M.2.1.2 | March |
| **Apply concepts of volume to solve problems and relate volume to multiplication and to addition** | **CC.2.4.5.A.5** | FebruaryMarch |
| Understand concepts of volume and relate volume to multiplication and to addition | M05.D-M.3 | FebruaryMarch |
| Use, describe, and develop procedures to solve problems involving volume. | M05.D-M.3.1 | FebruaryMarch |
| Apply the formulas 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. | M05.D-M.3.1.1 | FebruaryMarch |
| Find volumes of solid figures composed of two non-overlapping right rectangular prisms. | M05.D-M.3.1.2 | FebruaryMarch |

**ASSESSMENTS**

**PSSA Academic Standards, Assessment Anchors, and Eligible Content:** The teacher must be knowledgeable of the PDE Academic Standards, Assessment Anchors, and Eligible Content and incorporate them regularly into planned instruction.

**Formative Assessments:** The teacher will utilize a variety of assessment methods to conduct in-process evaluations of student learning.

**Effective formative assessments for this course include:**  center activities, cooperative learning activities, games, online activities, oral responses, teacher observations, and worksheets.

**Summative Assessments:** The teacher will utilize a variety of assessment methods to evaluate student learning at the end of an instructional task, lesson, and/or unit.

**Effective summative assessments for this course include:** performance assessments, projects, tests, and quizzes.