**COURSE DESCRIPTION**

**Course Title:** Grade 8 Math Elective

**Course Number:** 00279

**Course Prerequisites:** None

|  |  |
| --- | --- |
| **Course Description:** | Through online software and project based learning students will focus on the math concepts of exponents, solving equations, functions, writing linear equations, angles and triangles, transformations and similarity, and data sets. |

**Suggested Grade Level**: Grade 8

**Length of Course:** One Semester

**Units of Credit:** .5

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

CSPG - Middle level Math or Secondary Math 7-12

To find the CSPG information, go to CSPG

**Certification verified by the WCSD Human Resources Department:** ☒Yes ☐No

**WCSD STUDENT DATA SYSTEM INFORMATION**

**Course Level:** Academic

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

☒F – Final Average ☒MP – Marking Period ☐ EXM – Final Exam

**GPA Type**: ☐ 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**: 02999

To find the State Course Code, go to State Course Code, 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:**  Get More Math

**Publisher:** Click or tap here to enter text.

**ISBN #:**  Click or tap here to enter text.

**Copyright Date:** Click or tap here to enter text.

**WCSD Board Approval Date:** 6/29/2020

**Supplemental Materials:** Click or tap here to enter text.

**Curriculum Document**

**WCSD Board Approval:**

**Date Finalized:** 6/5/2020

**Date Approved:**  6/29/2020

**Implementation Year:** 2020-2021

**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**  |
| **Exponents** | CC.2.2.8.B.1 | SeptemberFebruary |
| Multiplying and Dividing Exponents |  |  |
|  Powers of Exponents |  |  |
| Negative Exponents |  |  |
| Scientific Notation with Positive Powers of 10 |  |  |
| Scientific Notation Operations |  |  |
| Square Roots and Cube Roots |  |  |
| **Solving Equations** | CC.2.2.8.B.1CC.2.2.8.B.2CC.2.2.8.B.3 | SeptemberFebruary |
| Two-Step Equations |  |  |
| Equations with Variables on Both Sides |  |  |
| Equations with Rational Numbers |  |  |
| Equations Simplify |  |  |
| Equations with Infinite or No Solutions |  |  |
| Apply Equations to Solve Word Problems |  |  |
| **Functions** | CC.2.2.8.C.1CC.2.2.8.C.2 | OctoberMarch |
| Introduction to Functions |  |  |
| Identify Function from Table |  |  |
| Identify Function from Graph |  |  |
| Domain and Range |  |  |
| **Writing Linear Equations** | CC.2.2.8.B.1CC.2.2.8.B.2CC.2.2.8.B.3 | OctoberMarch |
| Writing Linear Equations Given Slope and y-Intercept |  |  |
| Writing Linear Equations Given Graph |  |  |
| Writing Linear Equations Given Table |  |  |
| Apply the Concept of Writing Linear Equations to Word Problems |  |  |
| **Angles and Triangles** | CC.2.3.8.A3 | NovemberApril |
| Parallel Lines Cut by a Transversal |  |  |
| Triangle Sum Theorem |  |  |
| Exterior Angle Theorem |  |  |
| The Pythagorean Theorem |  |  |
| Converse of Pythagorean Theorem |  |  |
| Distance Between Two Points |  |  |
| **Transformations/Similarities** | CC.2.3.8.A.2 | NovemberApril |
| Properties of Translations |  |  |
| Properties of Reflections |  |  |
| Properties of Rotations |  |  |
| Congruent Figures |  |  |
| Transformations and Verbal Descriptions |  |  |
| Properties of Dilations |  |  |
| Similar Figures |  |  |
| **Volume and Surface Area** | CC.2.3.8.A.1 | DecemberMay |
| Volume of Cylinders |  |  |
| Volume of Cones |  |  |
| Volume of Spheres |  |  |
| Volume of Cylinders, Cones, and Spheres |  |  |
| **Data Sets** | CC.2.4.8.B.1CC.2.4.8.B.2 | JanuaryMay |
| Scatter Plots |  |  |
| Two-Way Frequency Tables |  |  |
| Two-Way Relative Frequency Tables |  |  |

**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:** Get More Math

**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:** Projects