| Current Staff | | | | | | |
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| **Course** | Earth Science | | | | | |
| **Unit/ Length** | **Unit Objectives/ Big Ideas** | **Basic Outline/ Structure** | **Materials/ Text** | **Content Vocabulary** | **Next Gen/CCSS** | **Assessments & Activities** |
| **Module 1 (20 days)** | **INTEGER EXPONENTS AND SCIENTIFIC NOTATION** | Works with radicals and integer exponents. | ENGAGE NEW YORK ONLINE RESOURCES<br><br>(scientific calculator) | Scientific Notation, Order of Magnitude, Exponential Notation, Base, Exponent, Power, Integer, Whole Number, Expanded Form | 8.EE.1 8.EE.3 8.EE.4 | Mid Module Quiz End of Module Quiz End of Module Test |
| **Module 2 (25 days)** | **THE CONCEPT OF CONGRUENCE** | Understand Congruence and similarity using physical models, transparencies, or geometry software.<br><br>Understand and apply the Pythagorean Theorem | ENGAGE NEW YORK ONLINE RESOURCES<br><br>(Transparency paper, dry erase markers, optional geometry software) | Transformation, Basic Rigid Motion, Translation, Rotation, Reflection, Image of a point/figure, Sequence of Transformations, Vector, Congruence, Transversal | 8.G.1 8.G.2 8.G.5 8.G.6 8.G.7 | Mid Module Quiz End of Module Quiz End of Module Test |
| **Module 3 (25 days)** | **SIMILARITY** | Understand congruence and similarity using physical models, transparencies, or geometry software | ENGAGE NEW YORK ONLINE RESOURCES<br><br>(Compass, transparence paper, dry erase markers, geometry software, ruler, protractor) | Dilation, Congruence, Similar, Similarity Transformations, Similarity | 8.G.3 8.G.4 8.G.5 8.G.6 8.G.7 | Mid Module Quiz End of Module Quiz End of Module Test |
| **Module 4 (40 days)** | **LINEAR EQUATIONS** | Understand the connections between | ENGAGE NEW YORK ONLINE RESOURCES | Slope, Solution to a System of Linear Equations, System of | 8.EE.5 8.EE.6 8.EE.7 | Mid Module Quiz End of Module Quiz End of Module Test |

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| | | proportional relationships, lines, and linear equations. | (Scientific Calculator, Online Graphing Calculator, Graph Paper, Straight-Edge) | Linear Equations, Coefficient, Equation, Like Terms, Linear Expression, Solution, Term, Unit Rate, Variable) | 8.EE.8 | |
| **Module 5 (15 days)** | **EXAMPLES OF FUNCTIONS FROM GEOMETRY** | Define, evaluate, and compare functions.<br><br>Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres. | ENGAGE NEW YORK ONLINE RESOURCES<br><br>(3-D solids: cones, cylinders, and spheres) | Function, Input, Output, Linear Equations, Nonlinear Equations, Rate of Change, Solids, Volume | 8.F.1 8.F.2 8.F.3 | Mid Module Quiz End of Module Quiz End of Module Test |
| **Module 6 (20 days)** | **LINEAR FUNCTIONS** | Use functions to model relationships between quantities.<br><br>Investigate patterns of association in bivariate data. | ENGAGE NEW YORK ONLINE RESOURCES<br><br>(Graphing Calculator, Scatter Plot, Two-Way tables) | Association, Column Relative Frequency, Row Relative Frequency, Two-Way Table, Categorical Variable, Scatter Plot, Slope | 8.F.4 8.F.5 8.SP.1 8.SP.2 8.SP.3 8.SP.4 | Mid Module Quiz End of Module Quiz End of Module Test |
| **Module 7 (35 days)** | **INTRODUCTIONS TO IRRATIONAL NUMBERS USING GEOMETRY** | Know that there are numbers that are not rational, and approximate them by rational numbers.<br><br>Work with radicals and integer exponents.<br><br>Understand and apply the | ENGAGE NEW YORK ONLINE RESOURCES<br><br>(Scientific Calculator, 3-D Models, cone, pyramid) | Perfect Square, Square Root, Cube Root, Irrational Number, Infinite Decimals, Rational Approximation, Truncated Cone, Volume, Rate of Change, Number Line, Rational Number, Finite Decimals, Decimal Expansion, Rate of Change | 8.NS.1 8.NS.2 8.EE.2 8.G.6 8.G.7 8.G.8 8.G.9 | Mid Module Quiz End of Module Quiz End of Module Test |

| | | Pythagorean Theorem.<br><br>Solve real-world and mathematical problems involving volume of cylinders, cones and spheres. | | | | |
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