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|  | Whiteriver Unified School District | | Year at a Glance  2020-2021 | Grade 8 |
| Unit Name | Topic 1: Real Numbers | Topic 2: Analyze and Solve  Linear Equations | Topic 3 : Use Functions to  Model Relationships | Topic 4: Investigate  Bivariate Data |
| Dates |  |  |  |  |
| Big  Ideas | **1.1- 1.3 Real Numbers NS**  **\* Justify** whether a number is rational or not. **P**  **\* Differentiate** between a rational and irrational number. **P**  **\* Compare** and order rational and irrational numbers. **P**  **1.4-1.5 EE**  **\* Calculate** square roots and cube roots. **P**  \* **Solve** equations with square and cubed roots. **P**  **1.6-1.7**  **EE**  \* **Use** the properties of exponents to create equivalent expressions. **P**  \* **Write** equivalent expressions with a negative or zero exponent. **P**  **1.8-1.10 EE**  **\* Estimate** large and small quantities using a power of 10. **P**  \* **Use** scientific notation to write numbers. **P**  \* **Perform** operations with numbers written in scientific notation. **P** | **2.1-2.4 EE**  **\*Solve** equations by combining like terms.  **\*Solve** equations with rational coefficients  **\*Use** the distributive property to solve equations  **\*Explain** how to find the number of solutions to an equation  **2.5-2.9 EE**  **\*Compare** proportional relationships presented in multiple ways  **\*Find and Interpret** slope  **\*Write and Graph** linear equations in the form of y=mx  **\*Find and Explain** y-intercepts of equations | **3.1-3.2 F**  **\*Interpret** functions  **\*Represent** functions in multiple ways  **3.3 F**  **\*Compare** functions  **3.4 F**  **\*Construct** functions to model linear relationships  **\*Write** equations in the form of y=mx+b  **3.5-3.6 F**  **\*Describe** qualitative graphs  **\*Sketch and Analyze** linear functions | **4.1-4.3 SP (Supporting Standards)**  **\*Describe** associations found between plotted points  **\*Determine** the strength of linear associations  **\*Make** predictions based on scatterplot data  **4.4-4.5 SP (Supporting Standards)**  **\*Construct and Interpret** a two way frequency table  **\*Find and Interpret** relative frequency. |

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|  | Whiteriver Unified School District | | Year at a Glance  2020-2021 | Grade 8 |
| Unit Name | Topic 5: Analyze and Solve Systems of Linear Equations | Topic 6: Congruence and Similarity | Topic 7: Understand and Apply the Pythagorean Theorem | Topic 8: Solve Problems Involving Surface Area and Volume |
| Dates |  |  |  |  |
| Big  Ideas | **5.1-5.4 EE**  **\*Determine** the number of solutions to a system of equations  **\*Solve** systems of equations by graphing  **\*Solve** systems of equations by substitution  **\*Solve** systems of equations by elimination | **6.1-6.4 G (Supporting Standards)**  **\*Translate** an object on a coordinate plane  **\*Reflect** objects on the coordinate plane  **\*Rotate** objects on the coordinate plane  **\*Perform** a series of transformations  **6.5-6.7 G (Supporting Standards)**  **\*Describe** congruent figures  **\*Dilate** objects on the coordinate plane  **\*Describe** similarity  **6.8-6.10 G (Supporting Standards)**  **\*Find** unknown angle measures in transversals of parallel lines  **\*Find** the measure of interior and exterior angles of triangles  **\*Explain** similarity in triangles | **7.1-7.4 G (Supporting Standards)**  **\*Find** the hypotenuse or leg of a right triangle using the Pythagorean Theorem  **\*Analyze** shapes when using the converse of the Pythagorean Theorem  **\*Use** the Pythagorean Theorem in 3 dimensions  **\*Find** the distance between 2 points using the Pythagorean Theorem | **8.1-8.4 G (Supporting Standards)**  **\*Find** the surface area of cylinders, cones and spheres  **\*Find** the volume of a cylinder  **\*Find** the volume of a cone  **\*Find** the volume of a sphere  **\*Find** the volume of composite figures |