**Math 8 Syllabus**

**“Big Ideas”**

**Centura Public Schools**

\*Student Journal – Chapter 1 Review & Refresh

\*1.1 Objective: Write and solve one-step equations

Do: pg 8 (1-8, 11-20)

\*1.2 Objective: Write and solve equations with variables on one side

Do: pg 22 (1-19; 22-33)

\*1.3 Objective: Write and solve equations with variables on both sides

Do: pg 22 (1-7; 11-19; 22-33)

\*1.4 Objective: Solve literal equations for given variables and convert temperatures

Do: pg 29 (1-26)

\*Chapter Self-Assessment

Do: pg 33 (1-6; 9-26; 30-33) and pg 36 (1-16)

\*2.1 Objective: Translate figures in the coordinate plane

Do: pg 47 (1-21)

\*2.2 Objective: Reflect figures in the coordinate plane

Do: pg 53 (1-31)

\*2.3 Objective: Rotate figures in the coordinate plane

Do: pg 60 (1-19)

\*2.4 Objective: Understand the concept of congruent figures

Do: pg 67 (1-14)

\*2.5 Objective: Dilae figures in the coordinate plane

Do: pg 74 (1-25)

\*2.6 Objective: Understand the concept of similar figures

Do: pg 81 (1-14)

\*2.7 Objective: Find perimeters and areas of similar figures

Do: pg 87 (1-15)

\*Chapter Self-Assessment

Do: pg 91 (1-18; 19-20; 22-30) and pg 96 (1-12)

\*3.1 Objective: Find missing angle measures created by the intersections of lines

Do: pg 108 (1-12; 14-23; 28-29)

\*3.2 Objective: Understand properties of interior and exterior angles of triangles

Do: pg 115 (1-6; 9-20)

\*3.3 Objective: Find interior angle measures of polygons

Do: pg 121 (1-19)

\*3.4 Objective: Use similar triangles to find missing measures

Do: pg 127 (1-6; 9-15)

\*Chapter Self-Assessment

Do: pg 131 (1-16; 18-28) and pg 134 (1-14)

\*4.1 Objective: Graph linear equations

Do: pg 145 (1-22; 25-28)

\*4.2 Objective: Find and interpret the slope of a line

Do: pg 152 (1-29)

\*4.3 Objective: Graph proportional relationships

Do: pg 159 (1-6; 10-13)

\*4.4 Objective: Graph linear equations in slope-intercept form

Do: pg 165 (1-23; 25-30)

\*4.5 Objective: Graph linear equations in standard form

Do: pg 171 (1-6; 9-18; 20-22)

\*4.6 Objective: Write equations of lines in slope-intercept form

Do: pg 177 (1-7; 11-20)

\*4.7 Objective: Write equations of lines in point-slope form

Do: pg 183 (1-5; 8-19; 21-26)

\*Chapter Self-Assessment

Do: pg 187 (1-9; 11-20; 24-35; 39-44; 46-49) and pg 192 (1-13)

\*5.1 Objective: Understand how to solve systems of linear equations by graphing

Do: pg 203 (1-6; 9-17)

\*5.2 Objective: Understand how to solve systems of linear equations by substitution

Do: pg 209 (1-4; 7-15; 19-21)

\*5.3 Objective: Understand how to solve systems of linear equations by elimination

Do: pg 216 (1-14; 18-30)

\*5.4 Objective: Solve systems with different numbers of solutions

Do: pg 223 (1-19)

\*Chapter Self-Assessment

Do: pg 227 (1-7; 9-12; 14-16; 18-19; 23-28) and pg 230 (1-8)

\*7.1 Objective: Understand the concept of a function

Do: pg 279 (7-18)

\*7.2 Objective: Represent functions in a variety of ways

Do: pg 286 (1-6; 9-11; 15-29; 33-35)

\*7.3 Objective: Use functions to model linear relationships

Do: pg 293 (1-11)

\*7.4 Objective: Understand differences between linear and nonlinear functions

Do: pg 299 (5-14)

\*7.5 Objective: Use graphs of functions to describe relationships between quantities

Do: pg 305 (1-15; 17)

\*Chapter Self-Assessment

Do: pg 309 (1-5; 7-14; 16-18; 19-23) and pg 312 (1-6)

\*8.1 Objective: Use exponents to write and evaluate expressions

Do: pg 323 (1-27; 29-37)

\*8.2 Objective: Generate equivalent expressions involving products of powers

Do: pg 329 (1-30)

\*8.3 Objective: Generate equivalent expressions involving quotients of powers

Do: pg 335 (1-23; 25-30)

\*8.4 Objective: Understand the concepts of zero and negative exponents

Do: pg 341 (1-5; 9-21; 24-31)

\*8.5 Objective: Use scientific notation by first rounding

Do: pg 347 (1-3; 7-16; 18-23)

\*8.6 Objective: Understand the concept of scientific notation

Do: pg 353 (1-27; 31-34)

\*Chapter Self-Assessment

Do: pg 363 (1-17; 20-28; 32-33; 36-41) and pg 366 (1-12)

\*9.1 Objective: Understand the concept of a square root of a number

Do: pg 378 (7-39; 41-47)

\*9.2 Objective: Understand the Pythagorean Theorem

Do: pg 386 (1-17)

\*9.3 Objective: Understand the concept of a cube root of a number

Do: pg 393 (1-27)

\*9.4 Objective: Convert between different forms of rational numbers

Do: pg 399 (1-19)

\*9.5 Objective: Irrational numbers

Do: pg 406 (1-19; 22-33)

\*9.6 Objective: Understand the converse of the Pythagorean Theorem

Do: pg 413 (1-19)

\*Chapter Self-Assessment

Do: pg 417 (1-21; 25-31) and pg 420 (1-15)

\*10.1 Objective: Find the volume of a cylinder

Do: pg 431 (1-20)

\*10.2 Objective: Find the volume of a cone

Do: pg 437 (1-17)

\*10.3 Objective: Find the volume of a sphere

Do: pg 443 (7-18)

\*10.4 Objective: Find the surface areas and volumes of similar solids

Do: pg 450 (1-14)

\*Chapter Self-Assessment

Do: pg 455 (1-17; 19-22) and pg 458 (1-6)