BTMS and NMS 8th Grade Mathematics
AR Math 8 Blueprint
*Bolded standards are emphasized on testing

Grade Level	Unit	Time Period	Essential Skills	Standard
8	Transformations and Congruence	August - September	*Congruence *Similarity *Reflect, rotate, translate, dilate figures	**8.GM.6 8.GM.7 8.GM.8 8.GM.9 8.GM.10 8.GM.11**
8 **Can group dilations w/Unit 1 and Slope w/next unit*	Dilations, Similarity, Slope	September	*Perform dilations with a center and scale factor. *Create similar figures/determine if figures are similar. *Find the slope of a line using triangles.	
8	Proportionality and Linear Relationships	October	*Slope from tables, equations, and graphs *Slope-intercept equations (y=mx+b)	8.FN.1 8.FN.2
8	Solving Linear Equations and Systems	November - December	*Solve equations with multiple variables. *Solve systems of equations using graphs and algebraic methods.	8.ALG.1 8.ALG.2 8.ALG.3
8	Pythagorean Theorem & Irrational Numbers	January	*Understand that square roots and cube roots represent the side lengths of squares and cubes. *Estimate the values of square	8.GM.3 **8.GM.4** 8.GM.5 8.NCC.1

			roots and cube roots. *Use the Pythagorean Theorem to find missing side lengths of right triangles.	
8	Exponents and Scientific Notation	February	*Solve expressions using positive, negative, and zero exponents. *Write numbers in scientific notation. *Expand numbers written in scientific notation.	**8.FN.2** **8.FN.3** **8.FN.4** **8.FN.5** **8.FN.6** **8.FN.7** 8.FN.8
8	Functions and Volume	March	*Determine if graphs or tables represent functions. *Calculate the volume of spheres, cylinders, and cones.	**8.FN.3** **8.FN.4** **8.FN.5** 8.GM.1 8.GM.2
8	Scatter Plots and Data Associations	April	*Organize data into scatter plots. *Analyze that data/notice relationships. *Create and analyze two-way tables and bar graphs.	8.SP.1 8.SP.2 8.SP.3