7th Grade Mathematics Teaching and Learning Framework

Semester 1			Semester 2			
Unit 1 8 weeks	**Unit 2** 7 weeks	**Unit 3A** 3 weeks	**Unit 3B** 7 weeks	**Unit 4** 5 weeks	**Unit 5** 3 weeks	**Unit 6** 3 weeks
Making Relevant Connections within the Number System **7.NR.1**	**Reasoning with Expressions, Equations, and Inequalities** **7.PAR.2** **7.PAR.3**	**Exploring Ratios and Proportional Relationships** **7.PAR.4**	**Exploring Ratios and Proportional Relationships** **7.PAR.4**	**Making Relevant Connections with Geometry** **7.GSR.5**	**Investigating Probability** **7.PR.6**	**Culminating Capstone**
7.NR.1.1 (Opposites/Additive Inverse) **7.NR.1.2** (Add rational Numbers) **7.NR.1.3** (Represent rational numbers on number line) **7.NR.1.4** (Subtract Rational Numbers) **7.NR.1.5** (Apply Properties to Add and Subtract) **7.NR.1.6** (Multiply Rational Numbers) **7.NR.1.7** (Divide Rational Numbers) **7.NR.1.8** (Represent and Interpret Products & Quotients) **7.NR.1.9** (Apply Properties to Multiply and Divide) **7.NR.1.10** (Converting Fractions, Decimals & Percents) **7.NR.1.11** (Application of Rational Number)	**7.PAR.2.1** (Apply properties to Rewrite Linear Expressions) **7.PAR.2.2** (Write Expressions from Contextual Problems) **7.PAR.3.1** (Write and Solve Multi-Step Equations) **7.PAR.3.2** (Write and Solve Multi-Step Inequalities)	**7.PAR.4.10** (Predict Characteristics for Populations) **7.PAR.4.11** (Analyze Sampling Methods) **7.PAR.4.12** (Predictions of Random Samples)	**7.PAR.4.1** (Compute Unit Rates) **7.PAR.4.2** (Application of Unit Rates) **7.PAR.4.3** (Proportions) **7.PAR.4.4** (Identify & Represent Proportions) **7.PAR.4.5** (Unit Rate on a Coordinate Plane) **7.PAR.4.6** (Scale Drawings) **7.PAR.4.7** (Use similar triangles to explain slope) **7.PAR.4.8** (Graph & Interpret Proportions as Unit Rate) **7.PAR.4.9** (Application of Multi-Step Ratios & Percents)	**7.GSR.5.1** (Angle Measures with Non-Standard Units) **7.GSR.5.2** (Angle Measures with Protractors) **7.GSR.5.3** (Create & Solve Equations using Angle Relationships) **7.GSR.5.4** (Derive Formula for Area and Circumference of a Circle) **7.GSR.5.5** (Apply the Formula for Area and Circumference of a Circle) **7.GSR.5.6** (Surface Area of Right Prisms & Cylinders) **7.GSR.5.7** (Cross Sections) **7.GSR.5.8** (Volume of Cylinders & Right Prisms)	**7.PR.6.1** (Likely & Unlikely Events) **7.PR.6.2** (Predict given Theoretical Probability) **7.PR.6.3** (Probability of Simple Events) **7.PR.6.4** (Use Models to Determine Outcomes) **7.PR.6.5** (Create Models by Observing Frequencies) **7.PR.6.6** (Use Models to Make Inferences)	**All Standards**

Units contain tasks that depend upon the concepts addressed in earlier units. Mathematical standards are interwoven and should be addressed throughout the year in as many different units and tasks as possible in order to stress the natural connections that exist among mathematical topics.

The Framework for Statistical Reasoning, Mathematical Modeling Framework, and the K-12 Mathematical Practices should be taught throughout the units.

Key for Course Standards: PAR: Patterning & Algebraic Reasoning, GSR: Geometric & Spatial Reasoning, NR: Numerical Reasoning, PR: Probability Reasoning