**2017-18 Mathematics | Grade 8 | MNPS Year-at-a-Glance**

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|  | **Unit** | **Unit Title** | **Standards** | **Summary of Standard** |
| **Quarter 1** | Unit 1 | Rational vs. Irrational Numbers | 8.NS.A.1 8.NS.A.2 **8.EE.A.2** | Rational Numbers as Decimals  Approximating Irrational Numbers  Perfect Squares/Cubes and Roots |
| Unit 2 | Intro to Functions | **8.F.A.1 8.F.B.5** | Functions as Input and Output  Qualitative Descriptions of Graphs |
| Unit 3 | Representing Linear Functions and Proportional Relationships | **8.EE.B.5 8.EE.B.6 8.F.A.2 8.F.A.3 8.F.B.4** | Compare Reps of Proportional  Slope as Similar Triangles; y=mx+b  Compare Reps of Functions  Interpret y=mx+b; Linear vs. Non  Interpret and Write Linear Functions |
| **Quarter 2** | Unit 4 | Solving Linear Equations | **8.EE.C.7a 8.EE.C.7b** | Number of Solutions (1/0/INF)  Solve Multi-Step Equations |
| Unit 5 | Systems of Linear Equations | **8.EE.C.8a**  **8.EE.C.8b**  **8.EE.C.8c** | Interpreting Solutions of Systems  Solve Algebraically and Graphically  Writing Systems from Scenarios |
| **Quarter 3** | Unit 6 | Radicals and Integer Exponents | **8.EE.A.2 8.EE.A.1 8.EE.A.3 8.EE.A.4** | Perfect Squares/Cubes and Roots  Rewriting Terms with Exponents  Scientific Notation (No Calculator)  Scientific Notation (All Operations) |
| Unit 7 | Investigating Transformations | **8.G.A.1abc 8.G.A.2 8.G.A.3** | Transformations (Properties)  Transformations (Coordinates)  Triangle Properties; Transversals |
| Unit 8 | Pythagorean Theorem | **8.G.B.4 8.G.B.5 8.G.B.6** | Proving Pythagorean Theorem  Find Missing Side Lengths  Distance of a Line on a Graph |
| **Quarter 4** | Unit 9 | 3D Volume | 8.G.C.7 | Volume of Cones, Cylinders, Spheres |
| Unit 10 | Investigating and Interpreting Data and Chance | 8.SP.A.1 8.SP.A.2 8.SP.A.3 8.SP.B.4 | Make and Interpret Scatter Plots  Fit an Appropriate Linear LOBF  Interpret the LOBF in Context  Find Compound Probabilities |