Cobb County School District

MATHEMATICS

Advanced Mathematical Decision Making (AMDM) Teaching & Learning Framework

Semester 1			Semester 2			
Unit 1 6 weeks	**Unit 2** 6 weeks	**Unit 3** 6 weeks	**Unit 4** 8 weeks	**Unit 5** 4 weeks	**Unit 6** 4 weeks	**Unit 7** 2 weeks
Using The Power of Mathematical Reasoning to Make Decisions **AMDM.QPR.2-3** **AMDM.PAR.4**	**Using Probability to Make Decisions** **AMDM.PR.5-6**	**Using Statistical Studies to Make Decisions** **AMDM.DSR.7**	**Using Mathematical Models to Make Decisions** **AMDM.DSR.7** **AMDM. PAR.8** **AMDM.FGR.9** **AMDM.GSR.10**	**Using Vectors and Matrices to Make Decisions** **AMDM.PAR.11**	**Using Network Models to Make Decisions** **AMDM.PAR.12**	**Culminating Capstone Unit**
AMDM.QPR.2.1 (Apply proportions & percentages) **AMDM.QPR.2.2** (Solve w/ratios) **AMDM.QPR.2.3** (Use proportions) **AMDM.QPR.3.1** (Use averages) **AMDM.QPR.3.2** (Calculate & interpret indices) **AMDM.PAR.4.1** (Identification numbers) **AMDM.PAR.4.2** (Methods of voting) **AMDM.PAR.4.3** (Evaluate voting methods) **AMDM.PAR.4.4** (Apply ranking algorithms)	**AMDM.PR.5.1** (Conditional probabilities & compound events) **AMDM.PR.5.2** (Probabilities & risks) **AMDM.PR.6.1** (Calculate expected value) **AMDM.PR.6.2** (Zero-sum games) **AMDM.PR.6.3** (Probabilistic situations)	**AMDM.DSR. 7.1** (Statistical methods) **AMDM.DSR. 7.2** (Statistical information) **AMDM.DSR. 7.3** (Statistical study) **AMDM.DSR. 7.4** (Sample size) **AMDM.DSR. 7.5** (Random selection) **AMDM.DSR. 7.6** (Random designs) **AMDM.DSR. 7.7** (Use of Big Data) **AMDM.DSR. 7.8** (Use distributions) **AMDM.DSR. 7.9** (Interpret results)	**AMDM.DSR. 7.7** (Use of Big Data) **AMDM.DSR. 7.8** (Use distributions) **AMDM.DSR. 7.9** (Interpret results) **AMDM.PAR. 8.1** (Exponential Functions) **AMDM.PAR. 8.2** (Mathematical models) **AMDM.FGR.9.1** (Discrete or continuous) **AMDM.FGR.9.2** (Parent Functions) **AMDM.GSR. 10.1** (2D/3D representations) **AMDM.GSR. 10.2** (Inaccessible distances)	**AMDM.PAR. 11.1** (Vectors) **AMDM.PAR. 11.2** (Geometric transformations)	**AMDM.PAR. 12.1** (Vertex-edge graphs) **AMDM.PAR. 12.2** (Flow charts) **AMDM.PAR. 12.3** (Program Evaluation Review Technique) **AMDM.PAR. 12.4** (Coloring graphs)	**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, FGR: Functional & Graphical Reasoning, GSR: Geometric & Spatial Reasoning, QPR: Quantitative & Proportional Reasoning; DSR: Data & Statistical Reasoning; PR: Probabilistic Reasoning

Updated May 2025

Cobb County School District

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BLOCK

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