

High Level Blueprint

This High-Level Blueprint describes the structure and content of the Maryland Comprehensive Assessment Program (MCAP) Grade 5 Mathematics Assessment by subclaim.

Content Subclaim

The MCAP Grade 5 assessment contains 23 operational items designed to elicit evidence to support the Content Subclaim. Content Subclaim items are worth 1-point, are machine scored, and align to the Grade 5 evidence statements. Refer to the MCAP Grade 5 Evidence Statement document for more information on the content evidence statements.

Domain: Operations and Algebraic Thinking

Number of items: 2

Code	Cluster
5.0A.A	Write and interpret numerical expression.
5.OA.B	Analyze patterns and relationships.

Domain: Number and Operations in Base Ten

Number of items: 6

Code	Cluster
5.NBT.A	Understand the place value system.
5.NBT.B	Perform operations with multi-digit whole numbers and write decimals to hundredths.

Domain: Number and Operations - Fractions

Number of items: 9

Code	Cluster
5.NF.A	Use equivalent fractions as a strategy to add and subtract fractions.
5.NF.B	Apply and extend previous understandings of multiplication and division to multiply and divide fractions.

Domain: Measurement

Number of items: 4

Code	Domain & Cluster
5.MD.A	Convert like measurement units within a given measurement system.
5.MD.B	Represent and interpret data.

Code	Domain & Cluster
5.MD.C	Geometric measurement: Understand concepts of volume and relate volume to multiplication and division.

Domain: Geometry

Number of items: 2

Code	Domain & Cluster
5.G.A	Graph points on the coordinate plane to solve real-world and mathematical problems.
5.G.B	Classify two-dimensional figures into categories based on their properties.

Total number of Operational Items: 23

Reasoning Subclaim

The MCAP Grade 5 assessment includes 6 operational items that elicit evidence to support the Reasoning Subclaim. Each assessment includes machine-scored and human-scored (constructed response) reasoning items. The content focus for all reasoning items is based on the content clusters. Refer to the MCAP Grade 5 Evidence Statements document for more information on the reasoning evidence statements.

Evidence Statements

- 5.R.1 Base reasoning or explanations using a given pictorial representation and explain how the pictorial model represents a mathematical concept, or how it can be used to justify or refute a statement (with or without flaws) or how it can be used to generalize.
- 5.R.2 Identify flawed thinking/reasoning and explain how to correct the thinking or work.
- 5.R.3 Prove or disprove a statement, conjecture or generalization, using correct and precise mathematical examples.
- 5.R.4 Reason mathematically to create a correct and precise solution to a real-world problem and be able to explain why the answer is mathematically correct.

Number of Machine Scored Items – Four (4) 1-point items

Number of Constructed Response Items – One 3-point item and one 4-point item

Modeling Subclaim

The MCAP Grade 5 assessment includes 6 operational items that elicit evidence to support the Modeling Subclaim. Each assessment includes machine-scored and human-scored (constructed response) modeling items. Modeling items may address any of the Grade 5 evidence statements. Refer to the MCAP Grade 5 Evidence Statement document for more information on the modeling evidence statements.

Evidence Statements

- 5.M.1 Determine the problem that needs to be solved in a real-world situation.
- 5.M.2 Determine the information that is needed to solve a problem in a given real-world situation.
- 5.M.3 Identify the mathematics that is needed to create a solution path for a real-world situation.
- 5.M.4 Create a solution path that represents the mathematics needed to solve a real-world situation.
- 5.M.5 Evaluate a partial or complete solution to a real-world situation.

Number of Machine Scored Items – Four (4) 1-point items

Number of Constructed Response Items – One 3-point item and one 4-point item