



Mathematics Interim Assessment Blocks

Fixed Form Blueprint

as of July 2022

The Smarter Balanced Interim Assessment Blocks (IABs) are one type of interim assessment being made available by the Consortium; the other types are the Interim Comprehensive Assessment (ICAs) which are similar in structure and follow the same blueprint as the summative assessment, and the Focused Interim Assessment Blocks (FIABs) which are snapshots of student performance on one or more targets. IABs are short, sets or blocks of items that measure multiple Claim 1 assessment targets. Results from these assessments provide information about a student's strengths or needs in relation to the Common Core State Standards (CCSS) and, therefore, generate more detailed information for instructional purposes than the summative assessment or ICAs alone. All types of interim assessments are currently available as fixed forms. The fixed forms are administered online, using the same delivery software as the summative assessments.

This blueprint presents the specific blocks that are available by grade level for mathematics beginning at grade 3 and continuing through high school. Each block-level blueprint contains information about claim(s), assessment target(s), and depth of knowledge (DOK) level(s) addressed by the items in that block as well as the numbers of items allocated to each of those categories.

The blueprint can be used by educators to plan how to integrate the IABs and FIABs effectively within classroom instruction or to better understand results that are reported. Users of the blueprint can become familiar with the number of IABs/FIABs for each grade level, the general focus of each, (i.e., which assessment targets are addressed in a specific IAB or FIAB and the emphasis of each target relative to the other targets in the block). A fifth-grade teacher, for example, may wish to collect more information regarding her students' knowledge about measurement and data. The teacher could use this blueprint to see that there is a block for measurement and data composed of 14 machined-scored items across the four claims—concepts and procedures, problem solving, modeling and data analysis, and communicating reasoning. After reading the blueprint, the educator will have a better understanding of the meaning of the measurement and data block.

Finally, educators can use these IAB as well as the FIAB blueprints in conjunction with the summative and ICA blueprints to support more comprehensive classroom-level instruction and assessment plans.

Mathematics Interim Assessment Blocks

Grade 3	Grade 4	Grade 5
Operations and Algebraic Thinking	Operations and Algebraic Thinking	Number and Operations in Base Ten
Measurement and Data	Number and Operations in Base Ten	Number and Operations – Fractions
Mathematics Performance Task	Number and Operations – Fractions	Measurement and Data
	Measurement and Data	Operations and Algebraic Thinking
	Mathematics Performance Task	Mathematics Performance Task

Grade 6	Grade 7	Grade 8	High School
Expressions and Equations	Expressions and Equations	Expressions and Equations I	Algebra and Functions I – Linear Functions, Equations, and Inequalities
The Number System	Geometry	Geometry	Algebra and Functions II – Quadratic Functions, Equations, and Inequalities
Mathematics Performance Task	Mathematics Performance Task	Mathematics Performance Task	Geometry Congruence
			Geometry Measurement and Modeling
			Mathematics Performance Task

Grade 3 - Operations and Algebraic Thinking (15 items)

Claim	Content Category	Assessment Targets	DOK	Number of Items	Total Items per Reporting Category
1. Concepts and Procedures	OA	A. Represent and solve problems involving multiplication and division.	1, 2	4	12
		B. Understand properties of multiplication and the relationship between multiplication and division.	1	2	
		C. Multiply and divide within 100.	1	2	
		D. Solve Problems involving the four operations, and identify and explain patterns in arithmetic.	2	4	
2. Problem Solving	Problem Solving	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	1	
		B. Select and use appropriate tools strategically.	1, 2, 3		
		C. Interpret results in the context of a situation.			
		D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).			
4. Modeling and Data Analysis	Modeling and Data Analysis	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace.	2, 3	1	2
		D. Interpret results in the context of a situation.	2, 3, 4		
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem.			
		E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.			
		C. State logical assumptions being used.			
F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3				
G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4				
3. Communicating Reasoning	Communicating Reasoning	A. Test propositions or conjectures with specific examples.	2, 3	1	1
		D. Use the technique of breaking an argument into cases.			
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures.	2, 3, 4		
		E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.			
C. State logical assumptions being used.	2, 3				
F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions.					

Grade 3 – Measurement and Data (15 items)

Claim	Content Category	Assessment Targets	DOK	Number of Items	Total Items per Reporting Category
1. Concepts and Procedures	MD	G. Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects.	1, 2	4	12
		H. Represent and interpret data.	2, 3	2	
		I. Geometric measurement: understand concepts of area and relate area to multiplication and to addition.	1, 2	4	
		J. Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures.	1	2	
2. Problem Solving	Problem Solving	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	1	
		B. Select and use appropriate tools strategically.	1, 2, 3		
		C. Interpret results in the context of a situation.			
		D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).			
4. Modeling and Data Analysis	Modeling and Data Analysis	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace.	2, 3	1	2
		D. Interpret results in the context of a situation.	2, 3, 4		
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem.			
		E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.			
		C. State logical assumptions being used.			
F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).					
G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4				
3. Communicating Reasoning	Communicating Reasoning	A. Test propositions or conjectures with specific examples.	2, 3	1	1
		D. Use the technique of breaking an argument into cases.	2, 3, 4		
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures.			
		E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.			
C. State logical assumptions being used.	2, 3				
F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions.					

Grade 3 – Performance Task (6 items)

Claim	Content Category	Assessment Targets	DOK	Number of Items	Total Items in PT
2. Problem Solving	Problem Solving	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	2	6
		B. Select and use appropriate tools strategically. C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3		
4. Modeling and Data Analysis	Modeling and Data Analysis	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	2	
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	2, 3, 4		
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3		
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4		
3. Communicating Reasoning	Communicating Reasoning	A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	2	
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3, 4		
		C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions.	2, 3		

Grade 4 – Operations and Algebraic Thinking (16 items)

Claim	Content Category	Assessment Targets	DOK	Number of Items	Total Items per Reporting Category
1. Concepts and Procedures	OA	A. Use the four operations with whole numbers to solve problems.	1, 2	4	9
		B. Gain familiarity with factors and multiples.	1, 2	4	
		C. Generate and analyze patterns.	2, 3	1	
2. Problem Solving	Problem Solving	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	2	5
		B. Select and use appropriate tools strategically.	1, 2, 3		
		C. Interpret results in the context of a situation.			
4. Modeling and Data Analysis	Modeling and Data Analysis	D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	2, 3	3	
		A. Apply mathematics to solve problems arising in everyday life, society, and the workplace.			
		D. Interpret results in the context of a situation.	2, 3, 4		
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem.			
		E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	1, 2, 3		
C. State logical assumptions being used.					
F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).					
3. Communicating Reasoning	Communicating Reasoning	G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4	2	2
		A. Test propositions or conjectures with specific examples.	2, 3		
		D. Use the technique of breaking an argument into cases.			
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures.	2, 3, 4		
E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.					
		C. State logical assumptions being used.	2, 3		
		F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions.			

Grade 4 – Number and Operations in Base Ten (15 items)

Claim	Content Category	Assessment Targets	DOK	Number of Items	Total Items per Reporting Category
1. Concepts and Procedures	NBT	D. Generalize place value understanding for multi-digit whole numbers.	1, 2	5	12
		E. Use place value understanding and properties of operations to perform multi-digit arithmetic.	1	7	
2. Problem Solving	Problem Solving	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	1	1
		B. Select and use appropriate tools strategically.	1, 2, 3		
		C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).			
4. Modeling and Data Analysis	Modeling and Data Analysis	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	0	1
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem.	2, 3, 4		
		E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	1, 2, 3		
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).			
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.			
3. Communicating Reasoning	Communicating Reasoning	A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	2	2
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures.	2, 3, 4		
		E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.			
		C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions.	2, 3		

Grade 4 – Number and Operations – Fractions (15 items)

Claim	Content Category	Assessment Targets	DOK	Number of Items	Total Items per Reporting Category
1. Concepts and Procedures	NF	F. Extend understanding of fraction equivalence and ordering.	1, 2	5	12
		G. Build fractions from unit fractions by applying and extending previous understandings of operations on whole numbers.	1, 2	5	
		H. Understand decimal notation for fractions, and compare decimal fractions.	1, 2	2	
2. Problem Solving	Problem Solving	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	1	1
		B. Select and use appropriate tools strategically.	1, 2, 3		
		C. Interpret results in the context of a situation.			
4. Modeling and Data Analysis	Modeling and Data Analysis	D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	2, 3	0	1
		A. Apply mathematics to solve problems arising in everyday life, society, and the workplace.			
		D. Interpret results in the context of a situation.	2, 3, 4		
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem.			
		E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	1, 2, 3		
C. State logical assumptions being used.					
3. Communicating Reasoning	Communicating Reasoning	F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	3, 4	2	2
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.			
		A. Test propositions or conjectures with specific examples.	2, 3		
		D. Use the technique of breaking an argument into cases.			
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures.	2, 3, 4		
E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.					
C. State logical assumptions being used.	2, 3				
F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions.					

Grade 4 – Measurement and Data (15 items)

Claim	Content Category	Assessment Targets	DOK	Number of Items	Total Items per Reporting Category
1. Concepts and Procedures	MD	I. Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.	1, 2	6	13
		J. Represent and interpret data.	1, 2	2	
		K. Geometric measurement: understand concepts of angle and measure angles.	1, 2	5	
2. Problem Solving	Problem Solving	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	1	2
		B. Select and use appropriate tools strategically. C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3		
4. Modeling and Data Analysis	Modeling and Data Analysis	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	1	
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem.	2, 3, 4		
		E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	2, 3, 4		
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3		
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4		
3. Communicating Reasoning	Communicating Reasoning	A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	0	0
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures.	2, 3, 4		
		E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3, 4		
		C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions.	2, 3		

Grade 4 – Performance Task (6 items)

Claim	Content Category	Assessment Targets	DOK	Number of Items	Total Items in PT
2. Problem Solving	Problem Solving	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	2	6
		B. Select and use appropriate tools strategically. C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3		
4. Modeling and Data Analysis	Modeling and Data Analysis	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	2	
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	2, 3, 4		
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3		
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4		
3. Communicating Reasoning	Communicating Reasoning	A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	2	
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3, 4		
		C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions.	2, 3		

Grade 5 – Number and Operations in Base Ten (15 items)

Claim	Content Category	Assessment Targets	DOK	Number of Items	Total Items per Reporting Category
1. Concepts and Procedures		C. Understand the place value system.	1, 2	4	11
		D. Perform operations with multi-digit whole numbers and with decimals to hundredths.	1, 2	7	
2. Problem Solving	Problem Solving	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	1	
		B. Select and use appropriate tools strategically. C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3		
4. Modeling and Data Analysis	Modeling and Data Analysis	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	1	2
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem.	2, 3, 4		
		E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.			
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3		
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4		
3. Communicating Reasoning	Communicating Reasoning	A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	2	2
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures.	2, 3, 4		
		E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.			
		C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions.	2, 3		

Grade 5 – Number and Operations – Fractions (15 items)

Claim	Content Category	Assessment Targets	DOK	Number of Items	Total Items per Reporting Category
1. Concepts and Procedures	NF	E. Use equivalent fractions as a strategy to add and subtract fractions.	1, 2	5	11
		F. Apply and extend previous understandings of multiplication and division to multiply and divide fractions.	1, 2	6	
2. Problem Solving	Problem Solving	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	1	2
		B. Select and use appropriate tools strategically. C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3		
4. Modeling and Data Analysis	Modeling and Data Analysis	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	1	
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	2, 3, 4		
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3		
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4		
3. Communicating Reasoning	Communicating Reasoning	A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	2	2
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3, 4		
		C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions.	2, 3		

Grade 5 – Measurement and Data (14 items)

Claim	Content Category	Assessment Targets	DOK	Number of Items	Total Items per Reporting Category
1. Concepts and Procedures	MD	G. Convert like measurement units within a given measurement system.	1	1	9
		H. Represent and interpret data.	1, 2	2	
		I. Geometric measurement: understand concepts of volume and relate volume to multiplication and to addition.	1, 2	6	
2. Problem Solving	Problem Solving	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	3	4
		B. Select and use appropriate tools strategically. C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3		
4. Modeling and Data Analysis	Modeling and Data Analysis	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	1	
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem.	2, 3, 4		
		E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	2, 3, 4		
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3		
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4		
3. Communicating Reasoning	Communicating Reasoning	A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	1	1
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures.	2, 3, 4		
		E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3, 4		
		C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions.	2, 3		

Grade 5 – Operations and Algebraic Thinking (15 items)

Claim	Content Category	Assessment Targets	DOK	Number of Items	Total Items per Reporting Category
1. Concepts and Procedures	OA	A. Write and interpret numerical expressions.	1	9	13
		B. Analyze patterns and relationships.	2	4	
2. Problem Solving	Problem Solving	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	1	
		B. Select and use appropriate tools strategically. C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3		
4. Modeling and Data Analysis	Modeling and Data Analysis	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	1	2
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem.	2, 3, 4		
		E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.			
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3		
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4		
3. Communicating Reasoning	Communicating Reasoning	A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	0	0
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures.	2, 3, 4		
		E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.			
		C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions.	2, 3		

Grade 5 – Performance Task (6 items)

Claim	Content Category	Assessment Targets	DOK	Number of Items	Total Items in PT
2. Problem Solving	Problem Solving	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	2	6
		B. Select and use appropriate tools strategically. C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3		
4. Modeling and Data Analysis	Modeling and Data Analysis	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	2	
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	2, 3, 4		
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3		
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4		
3. Communicating Reasoning	Communicating Reasoning	A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	2	
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3, 4		
		C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions.	2, 3		

Grade 6 – Expressions and Equations (16 items)

Claim	Content Category	Assessment Targets	DOK	Number of Items	Total Items per Reporting Category
1. Concepts and Procedures	EE	E. Apply and extend previous understandings of arithmetic to algebraic expressions.	1	3	13
		F. Reason about and solve one-variable equations and inequalities.	1, 2	6	
		G. Represent and analyze quantitative relationships between dependent and independent variables.	2	4	
2. Problem Solving	Problem Solving	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	1	2
		B. Select and use appropriate tools strategically. C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3		
		A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3		
4. Modeling and Data Analysis	Modeling and Data Analysis	B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	2, 3, 4	1	1
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3		
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4		
		A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3		
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3, 4		
3. Communicating Reasoning	Communicating Reasoning	C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions. G. At later grades, determine conditions under which an argument does and does not apply. (For example, area increases with perimeter for squares, but not for all plane figures.)	2, 3	1	1

Grade 6 – The Number System (15 items)

Claim	Content Category	Assessment Targets	DOK	Number of Items	Total Items per Reporting Category
1. Concepts and Procedures	NS	B. Apply and extend previous understandings of multiplication and division to divide fractions by fractions.	1, 2	2	13
		C. Compute fluently with multi-digit numbers and find common factors and multiples.	1, 2	5	
		D. Apply and extend previous understandings of numbers to the system of rational numbers.	1, 2	6	
2. Problem Solving	Problem Solving	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	1	1
		B. Select and use appropriate tools strategically. C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3		
		A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3		
4. Modeling and Data Analysis	Modeling and Data Analysis	B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	2, 3, 4	0	1
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3		
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4		
		A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3		
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3, 4		
3. Communicating Reasoning	Communicating Reasoning	C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions. G. At later grades, determine conditions under which an argument does and does not apply. (For example, area increases with perimeter for squares, but not for all plane figures.)	2, 3	1	1
		A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3		
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3, 4		
		C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions. G. At later grades, determine conditions under which an argument does and does not apply. (For example, area increases with perimeter for squares, but not for all plane figures.)	2, 3		

Grade 6 – Performance Task (5-6 items)¹

Claim	Content Category	Assessment Targets	DOK	Number of Items	Total Items in PT
2. Problem Solving	Problem Solving	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	2	5-6
		B. Select and use appropriate tools strategically. C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3		
4. Modeling and Data Analysis	Modeling and Data Analysis	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	2	
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	2, 3, 4		
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3		
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4		
3. Communicating Reasoning	Communicating Reasoning	A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	1-2	
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3, 4		
		C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions. G. At later grades, determine conditions under which an argument does and does not apply. (For example, area increases with perimeter for squares, but not for all plane figures.)	2, 3		

¹ Grade 6 has two IAB performance tasks.

Grade 7 – Expressions and Equations (15 items)

Claim	Content Category	Assessment Targets	DOK	Number of Items	Total Items per Reporting Category
1. Concepts and Procedures	EE	C. Use properties of operations to generate equivalent expressions.	1, 2	5	12
		D. Solve real-life and mathematical problems using numerical and algebraic expressions and equations.	1, 2	7	
2. Problem Solving	Problem Solving	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	1	2
		B. Select and use appropriate tools strategically.	1, 2, 3		
		C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).			
4. Modeling and Data Analysis	Modeling and Data Analysis	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	1	2
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem.	2, 3, 4		
		E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	1, 2, 3		
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).			
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.			
3. Communicating Reasoning	Communicating Reasoning	A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	1	1
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures.	2, 3, 4		
		E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3		
		C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions. G. At later grades, determine conditions under which an argument does and does not apply. (For example, area increases with perimeter for squares, but not for all plane figures.)			

Grade 7 – Geometry (13 items)

Claim	Content Category	Assessment Targets	DOK	Number of Items	Total Items per Reporting Category
1. Concepts and Procedures	G	E. Draw, construct, and describe geometrical figures and describe the relationship between them.	1, 2	5	11
		F. Solve real-life and mathematical problems involving angle measure, area, surface area, and volume.	1, 2	6	
2. Problem Solving	Problem Solving	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	2	2
		B. Select and use appropriate tools strategically. C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3		
4. Modeling and Data Analysis	Modeling and Data Analysis	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	0	
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	2, 3, 4		
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3		
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4		
3. Communicating Reasoning	Communicating Reasoning	A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	0	0
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3, 4		
		C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions. G. At later grades, determine conditions under which an argument does and does not apply. (For example, area increases with perimeter for squares, but not for all plane figures.)	2, 3		

Grade 7 – Performance Task (6 items)

Claim	Content Category	Assessment Targets	DOK	Number of Items	Total Items in PT
2. Problem Solving	Problem Solving	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	2	6
		B. Select and use appropriate tools strategically. C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3		
4. Modeling and Data Analysis	Modeling and Data Analysis	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	3	
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	2, 3, 4		
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3		
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4		
3. Communicating Reasoning	Communicating Reasoning	A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	1	
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3, 4		
		C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions. G. At later grades, determine conditions under which an argument does and does not apply. (For example, area increases with perimeter for squares, but not for all plane figures.)	2, 3		

Grade 8 – Expressions & Equations I (14 items)

Claim	Content Category	Assessment Targets	DOK	Number of Items	Total Items per Reporting Category
1. Concepts and Procedures	EE	B. Work with radicals and integer exponents.	1, 2	3	9
		C. Understand the connections between proportional relationships, lines, and linear equations.	1, 2	2	
		D. Analyze and solve linear equations and pairs of simultaneous linear equations	1, 2	4	
2. Problem Solving	Problem Solving	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	3	
		B. Select and use appropriate tools strategically.	1, 2, 3		
		C. Interpret results in the context of a situation.			
4. Modeling and Data Analysis	Modeling and Data Analysis	D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	2, 3	0	3
		A. Apply mathematics to solve problems arising in everyday life, society, and the workplace.			
		D. Interpret results in the context of a situation.			
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem.			
		E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.			
3. Communicating Reasoning	Communicating Reasoning	C. State logical assumptions being used.	1, 2, 3	2	2
		F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).			
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4		
		A. Test propositions or conjectures with specific examples.	2, 3		
		D. Use the technique of breaking an argument into cases.			
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures.	2, 3, 4		
		E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.			
C. State logical assumptions being used.	2, 3				
F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions.					
G. At later grades, determine conditions under which an argument does and does not apply. (For example, area increases with perimeter for squares, but not for all plane figures.)					

Grade 8 – Geometry (14 items)

Claim	Content Category	Assessment Targets	DOK	Number of Items	Total Items per Reporting Category
1. Concepts and Procedures	G	G. Understand congruence and similarity using physical models, transparencies, or geometry software.	1, 2	5	12
		H. Understand and apply the Pythagorean Theorem.	1, 2	5	
		I. Solve real-world and mathematical problems involving volume of cylinders, cones, and spheres.	1, 2	2	
2. Problem Solving	Problem Solving	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	0	
		B. Select and use appropriate tools strategically.	1, 2, 3		
		C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).			
4. Modeling and Data Analysis	Modeling and Data Analysis	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	1	1
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem.	2, 3, 4		
		E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	1, 2, 3		
		C. State logical assumptions being used.			
		F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	3, 4		
3. Communicating Reasoning	Communicating Reasoning	A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	1	1
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures.	2, 3, 4		
		E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.			
		C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions.	2, 3		

Grade 8 – Performance Task (6 items)

Claim	Content Category	Assessment Targets	DOK	Number of Items	Total Items in PT
2. Problem Solving	Problem Solving	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	2	6
		B. Select and use appropriate tools strategically. C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3		
4. Modeling and Data Analysis	Modeling and Data Analysis	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	2	
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	2, 3, 4		
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3		
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4		
3. Communicating Reasoning	Communicating Reasoning	A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	2	
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3, 4		
		C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions. G. At later grades, determine conditions under which an argument does and does not apply. (For example, area increases with perimeter for squares, but not for all plane figures.)	2, 3		

High School – Algebra and Functions I – Linear Functions, Equations, and Inequalities (15 items)

Claim	Content Category	Assessment Targets	DOK	Number of Items	Total Items per Reporting Category
1. Concepts and Procedures	A, F	G. Create equations that describe numbers or relationships.	1, 2	1	11
		I. Solve equations and inequalities in one variable.	1, 2	3	
		J. Represent and solve equations and inequalities graphically.	1, 2	4	
		L. Interpret functions that arise in applications in terms of a context.	1, 2	1	
		M. Analyze functions using different representations.	1, 2, 3	1	
		N. Build a function that models a relationship between two quantities.	1, 2	1	
2. Problem Solving	Problem Solving	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	2	
		B. Select and use appropriate tools strategically.	1, 2, 3		
		C. Interpret results in the context of a situation.			
		D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).			
4. Modeling and Data Analysis	Modeling and Data Analysis	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace.	2, 3	1	3
		D. Interpret results in the context of a situation.			
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem.	2, 3, 4		
		E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.			
		C. State logical assumptions being used.	1, 2, 3		
F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).					
3. Communicating Reasoning	Communicating Reasoning	A. Test propositions or conjectures with specific examples.	2, 3	1	1
		D. Use the technique of breaking an argument into cases.			
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures.	2, 3, 4		
		E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.			
		C. State logical assumptions being used.	2, 3		
		F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions.			
		G. At later grades, determine conditions under which an argument does and does not apply.			

High School – Algebra and Functions II – Quadratic Functions, Equations, and Inequalities (15 items)

Claim	Content Category	Assessment Targets	DOK	Number of Items	Total Items per Reporting Category
1. Concepts and Procedures	A, F	G. Create equations that describe numbers or relationships.	1, 2	1	12
		H. Understand solving equations as a process of reasoning and explain the reasoning.	1, 2	3	
		I. Solve equations and inequalities in one variable.	1, 2	1	
		J. Represent and solve equations and inequalities graphically.	1, 2	3	
		L. Interpret functions that arise in applications in terms of a context.	1, 2	1	
		M. Analyze functions using different representations.	1, 2, 3	2	
		N. Build a function that models a relationship between two quantities.	1, 2	1	
2. Problem Solving	Problem Solving	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	0	2
		B. Select and use appropriate tools strategically.	1, 2, 3		
		C. Interpret results in the context of a situation.			
		D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).			
4. Modeling and Data Analysis	Modeling and Data Analysis	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace.	2, 3	2	2
		D. Interpret results in the context of a situation.	2, 3, 4		
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem.			
		E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.			
		C. State logical assumptions being used.			
F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).					
G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4				
3. Communicating Reasoning	Communicating Reasoning	A. Test propositions or conjectures with specific examples.	2, 3	1	1
		D. Use the technique of breaking an argument into cases.			
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures.	2, 3, 4		
		E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.			
		C. State logical assumptions being used.			
		F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions.	2, 3		
		G. At later grades, determine conditions under which an argument does and does not apply.			

High School – Geometry Congruence (12 items)

Claim	Content Category	Assessment Targets	DOK	Number of Items	Total Items per Reporting Category
2. Problem Solving	Problem Solving	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	0	0
		B. Select and use appropriate tools strategically. C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3		
4. Modeling and Data Analysis	Modeling and Data Analysis	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	0	
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	2, 3, 4		
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3		
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4		
3. Communicating Reasoning	Communicating Reasoning	A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	12	12
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3, 4		
		C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions. G. At later grades, determine conditions under which an argument does and does not apply.	2, 3		

High School – Geometry Measurement and Modeling (10 items)

Claim	Content Category	Assessment Targets	DOK	Number of Items	Total Items per Reporting Category	
2. Problem Solving	Problem Solving	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	4	10	
		B. Select and use appropriate tools strategically. C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3			
4. Modeling and Data Analysis	Modeling and Data Analysis	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	6		
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	2, 3, 4			
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3			
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4			
3. Communicating Reasoning	Communicating Reasoning	A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	0		0
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3, 4			
		C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions. G. At later grades, determine conditions under which an argument does and does not apply.	2, 3			

High School – Performance Task (6 items)

Claim	Content Category	Assessment Targets	DOK	Number of Items	Total Items in PT
2. Problem Solving	Problem Solving	A. Apply mathematics to solve well-posed problems arising in everyday life, society, and the workplace.	2, 3	1	6
		B. Select and use appropriate tools strategically. C. Interpret results in the context of a situation. D. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3		
4. Modeling and Data Analysis	Modeling and Data Analysis	A. Apply mathematics to solve problems arising in everyday life, society, and the workplace. D. Interpret results in the context of a situation.	2, 3	3	
		B. Construct, autonomously, chains of reasoning to justify mathematical models used, interpretations made, and solutions proposed for a complex problem. E. Analyze the adequacy of and make improvements to an existing model or develop a mathematical model of a real phenomenon.	2, 3, 4		
		C. State logical assumptions being used. F. Identify important quantities in a practical situation and map their relationships (e.g., using diagrams, two-way tables, graphs, flow charts, or formulas).	1, 2, 3		
		G. Identify, analyze, and synthesize relevant external resources to pose or solve problems.	3, 4		
3. Communicating Reasoning	Communicating Reasoning	A. Test propositions or conjectures with specific examples. D. Use the technique of breaking an argument into cases.	2, 3	2	
		B. Construct, autonomously, chains of reasoning that will justify or refute propositions or conjectures. E. Distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in the argument—explain what it is.	2, 3, 4		
		C. State logical assumptions being used. F. Base arguments on concrete referents such as objects, drawings, diagrams, and actions. G. At later grades, determine conditions under which an argument does and does not apply.	2, 3		