Indiana's Alternate Measure (I AM) Blueprints
Grade 10 Mathematics
Updated 06/07/2019

Blueprints are a foundational resource in the assessment development process. Blueprints specify the proportionality of how I AM assesses the Indiana Alternate Academic Standards (Content Connectors), including the relative range of each Content Connector on the assessment as represented in the minimum and maximum number of items to be administered to each student.

The Department recruited Indiana educators to inform the blueprint development in June 2018. These educators represented different regions of the state, diverse student populations, and content and accessibility expertise. Panels of content and special education educators serving students with significant cognitive disabilities were convened at each grade level, recommended priorities, and associated item ranges noted within the blueprints. Educators also considered the vertical articulation of the content across grades 3–10. For mathematics, educators determined that all reporting categories should have equal emphasis in grades 3 and 4. For grades 5 and 6, educators placed an emphasis on Number Sense and transitioned to more emphasis on Algebra and Functions in grades 6–8. In grade 10, the educators determined that all reporting categories should have equal emphasis.

I AM mathematics will be a stage adaptive assessment delivered in two segments via computer. In segment one, all students receive a set of operational items that will determine which test they will take in the second segment of the test. Based on their performance in segment one, students will be administered a second segment that is targeted at their specific ability level.

The blueprints for I AM specify the number of operational items students will be administered overall, as well as by reporting category and Content Connector. Students may also receive field test items each year to build out more flexibility in the item pool for subsequent administrations.

Overview

The columns of the draft blueprints highlight key features of test design, including reporting categories, Content Connectors, Content Connector allocations (number of minimum and maximum items per Content Connector), reporting category allocations, and total operational items possible.

Reporting Category:	This is a broad domain or segment of the subject area identified by educators as meaningful sets of interrelated Content Connectors. Reporting categories are broad to allow for individual-level reporting of student performance. In many cases, the reporting category combines two or more related domains, as indicated by educators. The reporting category column also includes the overall percentage of the assessment characterized by the specific category.
Content Connector:	The Content Connector category code is noted. The full language of the Content Connector is available at: https://www.doe.in.gov/standards/content-connectors .
Content Connector Item Range:	The allocation defines the item range possible for each Content Connector. A Content Connector with a range that starts at zero indicates that the Content Connector may not be assessed each year.
Content Connector % of Test:	The allocation defines the percentage of the test for each Content Connector and corresponding reporting category.
Total Number of Items Possible:	This is the range for the total number of operational items possible on the assessment each year. Note: Field test items do not contribute to the operational points possible.

Additional Information

For ELA (grades 6, 7, 8, 10), and mathematics, some Content Connectors are part of a category that will be reported as an aggregate score. The items assessed with those Content Connectors will contribute to the student score as a whole. Distinct information about student performance on these Content Connectors will not appear on the Online Reporting System (ORS).

I AM Blueprints
Grade 10 Mathematics
(Beginning 2018–19 School Year)

Reporting Category	Content Connector (CC)	CC Item Range		CC % of Test		Reporting Category Item Range
		Min	Max	Min	Max	
Equations and Inequalities (Linear and Systems) (22–25%)	MA10.EI.1.a.1	1	4	3	13	7–8
	MA10.EI.2.a.1	0	1	0	3	
	MA10.EI.3.a.1	0	2	0	6	
	MA10.EI.4.a.1	1	2	3	6	
	MA10.EI.5.a.1	0	2	0	6	
	MA10.EI.6.a.1	0	2	0	6	
	MA10.EI.7.a.1	0	1	0	3	
	MA10.EI.8.a.1	0	1	0	3	
	MA10.EI.9.a.1	0	1	0	3	
	MA10.SEI.1.a.1	1	2	3	6	
	MA10.SEI.2.a.1	0	1	0	3	
	MA10.SEI.3.a.1	0	2	0	6	
	MA10.SEI.4.a.1	0	1	0	3	
Functions (Linear and Non-linear) (22–25%)	MA10.F.1.a.1	0	2	0	6	7–8
	MA10.F.2.a.1	0	2	0	6	
	MA10.F.4.a.1	0	2	0	6	
	MA10.F.5.a.1	0	1	0	3	
	MA10.F.6.a.1	1	2	3	6	
	MA10.F.7.a.1	0	2	0	6	
	MA10.F.8.a.1	0	1	0	3	
	MA10.F.9.a.1	0	2	0	6	
	MA10.F.9.a.2	0	2	0	6	
	MA10.F.9.a.3	0	2	0	6	
	MA10.F.9.a.4	0	1	0	3	
	MA10.F.10.a.1	0	1	0	3	
	MA10.QEEF.1.a.1	0	2	0	6	
	MA10.QEEF.2.a.1	0	2	0	6	
	MA10.QEEF.3.a.1	0	2	0	6	
	MA10.QEEF.4.a.1	0	2	0	6	
	MA10.QEEF.5.a.1	1	2	3	6	
	MA10.QEEF.6.a.1	0	2	0	6	

Reporting Category	Content Connector (CC)	CC Item Range		CC % of Test		Reporting Category Item Range
		Min	Max	Min	Max	
Number Sense and Data Analysis (22–25%)	MA10.NSEC.1.a.1	0	2	0	6	**7–8**
	MA10.NSEC.1.a.2	0	2	0	6	
	MA10.NSEC.2.a.1	0	1	0	3	
	MA10.NSEC.3.a.1	0	2	0	6	
	MA10.NSEC.6.a.1	0	2	0	6	
	MA10.NSEC.8.a.1	1	4	3	13	
	MA10.NSEC.9.a.1	0	1	0	3	
	MA10.NSEC.10.a.1	0	2	0	6	
	MA10.NSEC.10.a.2	0	1	0	3	
	MA10.NSEC.10.a.3	0	1	0	3	
	MA10.DASP.1.a.1	0	2	0	6	
	MA10.DASP.1.a.2	0	2	0	6	
	MA10.DASP.2.a.1	0	1	0	3	
	MA10.DASP.2.a.2	0	1	0	3	
	MA10.DASP.3.a.1	0	2	0	6	
	MA10.DASP.4.a.1	0	2	0	6	
	MA10.DASP.6.a.1	0	2	0	6	
	MA10.DASP.7.a.1	1	4	3	13	
Geometry and Measurement (22–25%)	MA10.GM.1.a.1	1	2	3	6	**7–8**
	MA10.GM.2.a.1	1	4	3	13	
	MA10.GM.3.a.1	1	2	3	6	
	MA10.GM.4.a.1	0	1	0	3	
	MA10.GM.5.a.1	1	2	3	6	
	MA10.GM.5.a.2	0	2	0	6	
	MA10.GM.6.a.1	0	1	0	3	

Aggregate Reporting Only

Educators identified the following standards for inclusion on the assessment. The standards will be aggregated to the overall Scale Score for each student and not reported as a separate reporting category.

	Content Connector (CC)	CC Item Range		CC % of Test		Item Range
		Min	Max	Min	Max	
Process Standards (Aggregate Reporting Only) (3–12%)	PS.1	0	1	0	3	**1–4**
	PS.2	0	1	0	3	
	PS.3	0	1	0	3	
	PS.4	0	1	0	3	
	PS.5	0	1	0	3	
	PS.6	0	1	0	3	
	PS.7	0	1	0	3	
	PS.8	0	1	0	3	
Total Operational Items: 32						