



# BIE Science Assessment Blueprints

The BIE Science Assessment is the Bureau of Indian Education's **summative assessment for Science**, administered at the **end of grades 5, 8, and 11**. The assessment measures students' proficiency with the **NGSS Science Standards**.

## Test Design

### Standards Distribution/Reporting Categories

The table below shows the distribution of operational points (which count for student's score) for each reporting category (domain) on the assessment. Engineering, Technology, and Applications of Science is not reported as a separate subscore; ETS points are counted in the domain associated with the problem presented (e.g., an engineering design question for a physical science-centered problem would contribute points to the physical sciences reporting category).

Reporting Category	Grade 5		Grade 8		Grade 11	
	# OP Pts	% OP Pts	# OP Pts	% OP Pts	# OP Pts	% OP Pts
Practices and Crosscutting Concepts in Physical Sciences	24-28	40%	20-24	35%	22-26	35%
Practices and Crosscutting Concepts in Life Sciences	18-22	30%	20-24	35%	22-26	35%
Practices and Crosscutting Concepts in Earth & Space Sciences	18-22	30%	18-22	30%	18-22	30%
<b>Total</b>	64	100%	64	100%	68	100%

### Student Testing Experience

The total number of test items and estimated testing time for the assessment are shown in the following tables. The test has operational items (items that count for a student's score) and field test items (try-out items that do not count for a student's score). The assessment is administered in three sessions. The item types are comprised of item clusters with 1- and 2-point machine-scored items (MS-1, MS-2), 2-point machine-scored standalone items (MS-2), and 4-point open-ended standalone items (OE).

Grade 5	Cluster Items			Standalone Items		Total Items
	Stimulus	MS-1	MS-2	MS-2	OE	
Core Operational Items	6	12	12	8	3	35
Matrix Field Test Items	2	4	4	4	1	13
<b>Total Student Experience</b>	8	16	16	12	4	48
<i>Estimated Testing Time: 150 min</i>						

Grade 8	Cluster Items			Standalone Items		Total Items
	Stimulus	MS-1	MS-2	MS-2	OE	
Core Operational Items	6	12	12	8	3	35
Matrix Field Test Items	2	4	4	4	1	13
<b>Total Student Experience</b>	8	16	16	12	4	48
<i>Estimated Testing Time: 150 min</i>						

Grade 11	Cluster Items			Standalone Items		Total Items
	Stimulus	MS-1	MS-2	MS-2	OE	
Core Operational Items	6	12	12	10	3	37
Matrix Field Test Items	2	4	4	5	1	14
<b>Total Student Experience</b>	8	16	16	15	4	51
<i>Estimated Testing Time: 165 min</i>						