Ohio Grade 5 Science Achievement Test Blueprint					
Standard		**Multiple Choice (1 point)**	**Short Answer (2 points)**	**Extended Response (4 points)**	**Total Points**
Science and Technology	Items	1 or 2	0 or 1	0 or 1*	
	Points	1 or 2	0 or 2	0 or 4	2-5
Scientific Inquiry	Items	2 to 4	1 or 2	0 or 1*	
	Points	2 to 4	2 or 4	0 or 4	4-8
Scientific Ways of Knowing	Items	1 or 2	0 or 1	0 or 1*	
	Points	1 or 2	0 or 2	0 or 4	2-5
Subtotal	Items	4 to 6	1 or 2	1	
	Points	4 to 6	2 or 4	4	10-14
Earth and Space Sciences	Items	8 to 10	0 or 1	0 or 1**	
	Points	8 to 10	0 or 2	0 or 4	10 - 14
Life Sciences	Items	8 to 10	0 or 1	0 or 1**	
	Points	8 to 10	0 or 2	0 or 4	10 - 14
Physical Sciences	Items	8 to 10	0 or 1	0 or 1**	
	Points	8 to 10	0 or 2	0 or 4	10 - 14
Total	Items	32	4	2	38
	Points	32	8	8	48

* On any test form only 1 of these 3 standards will have an extended response item.
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Additional Test Blueprint Information

Individual items are aligned to one standard and benchmark that is most appropriate to the knowledge and skill being addressed by that item.

The contexts of items that test Science and Technology, Scientific Inquiry, and Scientific Ways of Knowing are within the content limits of and will draw approximately equal content from Earth and Space Sciences, Life Sciences, and Physical Sciences.

Item Distribution

Per each operational test form there will be:

32 multiple-choice items

4 short-answer items

2 extended-response items

Items are distributed among the three item formats on each form of the test according to the following guidelines:

- Each of the four reportable categories will be assessed by multiple-choice items and at least one constructed-response item.
- Each of the six standards is assessed by at least one multiple-choice item.
- Each of the six standards is assessed by one extended-response item over a testing cycle of four operational test forms.
- Each operational form will typically include six Field Test items (five multiple-choice items and one constructed-response item) in addition to the 38 operational items. Field test items are not included in a student's score.

Grade-Level Distribution of Items

Achievement test items will distribute content across all of the standards for the grade-band. Items will be aligned to benchmarks with the grade-level indicators providing clarification only.

Reporting of Results and Reporting Categories

Results will be reported using a scaled score for overall achievement as well as the number of points received for each of the following reporting categories:

Reporting Category:	Maximum Total Points
Science and Technology, Scientific Inquiry and Scientific Ways of Knowing	10-14
Earth and Space Sciences	10-14
Life Sciences	10-14
Physical Sciences	10-14

Passage (Stimulus)-Based Items and Item Clusters

The majority of items on each form will be based on scientific, data-based stimulus material (graphic, textual, or combined). Both items and stimulus information will align to the academic content standards and benchmarks for grades 3-5. In addition, 2-3 stimulus-based item clusters will be included on each form. The characteristics of these clusters are described below.

- Each cluster will consist of a minimum of 3 and a maximum of 5 items, one of which may be constructed response.
- The stimulus for a cluster will typically consist of graphics and/or text that take up approximately 1/3 - 2/3 of a page.
- Individual items within a cluster may include additional stimulus material relevant to only that item.
- Each item in a cluster will assess one benchmark. The items in a cluster, however, will assess more than one benchmark. These benchmarks may also come from more than one standard.

Cognitive Demand

Every science item is classified as Recalling/Identifying Accurate Science, Communicating Understanding/Analyzing Science Information, Demonstrating Investigation Processes of Science or Applying Concepts/Making Relevant Connections with Science based on its cognitive demand. The cognitive demand is determined on the basis of what the item asks of the student in reasoning, evaluating procedures, understanding concepts or analyzing problems. Each form will distribute items across the types of cognitive demand to ensure a balance of ways for students to demonstrate science skills and understandings. The categories are not reported in student performance data.