

APPENDIX 1: SPRING 2008 TEST BLUEPRINTS

The Alaska Science GLEs are organized into seven standard categories as shown in Table 1–1. The GLEs identified specifically for local assessment purposes are not included.

Table 1–1. Distribution of Science GLEs by Standard Category for Grades 4, 8, and 10

Distribution of Science GLEs		Grade Level		
		4	8	10
STANDARD CATEGORIES	A - Science as Inquiry and Process	2	2	2
	B - Concepts of Physical Science	2	4	7
	C - Concepts of Life Science	6	6	6
	D - Concepts of Earth Science	6	3	8
	E - Science and Technology	3	0	1
	F - Cultural, Social, Personal Perspectives, and Science	0	0	1
	G - History and Nature of Science	2	1	4
TOTAL		21	16	29

As outlined in Table 1–2, the seven standard categories are organized into four reporting categories.

Table 1–2. Reporting Categories with Corresponding GLEs for Grades 4, 8, and 10

Grade Level Distribution by Reporting Category		Grade Level		
		4	8	10
		Number of GLEs per Reporting Category		
A, E–G	Nature of Science and Technology	7	3	8
B	Concepts of Physical Science	2	4	7
C	Concepts of Life Science	6	6	6
D	Concepts of Earth Science	6	3	8
TOTAL		21	16	29

Alaska Science 2008 and 2009 Operational Plan

GRADE 4		GLEs	Total Items per Form		Operational Pt. Totals	Total No. of Items	
REPORTING CATEGORIES	A, E, G – Nature of Science, Inquiry, and Technology		7	MC			SR
		B – Concepts of Physical Science	2	8	0	8	8
		C – Concepts of Life Science	6	10	0	10	10
		D – Concepts of Earth Science	6	10	0	10	10
		Total	21			50	48

GRADE 8		GLEs	Total Items per Form			Operational Pt. Totals	Total No. of Items	
REPORTING CATEGORIES	A, G – Nature of Science and Inquiry		3	MC	SR			ER
		B – Concepts of Physical Science	4	12	1	0	14	13
		C – Concepts of Life Science	6	14	1	0	16	15
		D – Concepts of Earth Science	3	10	1	0	12	11
		Total	16				62	56

GRADE 10		GLEs	Total Items per Form			Operational Pt. Totals	Total No. of Items	
REPORTING CATEGORIES	A, E-G – Nature of Science, Inquiry, Technology, and Society		8	MC	SR			ER
		B – Concepts of Physical Science	7	12	1	0	14	13
		C – Concepts of Life Science	6	12	1	0	14	13
		D – Concepts of Earth Science	8	12	0	1	16	13
		Total	29				64	56

During the spring of 2007, four unique field-test forms were administered. The item counts and distribution on the field-test forms mirrored the operational forms (see Tables 1–3 and 1–4).

Table 1–3. Grade 4: Four Unique Field-Test Forms

	MC	CR	Total Item Count
Number of Field Test Items per Form	46	2	48
Total Number of Field Test Items	184	8	192

Table 1–4. Grade 8 and 10: Four Unique Field-Test Forms

	MC	CR	Total Item Count
Number of Field Test Items per Form	52	4	56
Total Number of Field Test Items	208	16	224

Following the 2007 field test, test developers built two operational forms for each grade level for the spring 2008 and the spring 2009 test administrations.

The 2009 operational forms (one for each grade level) will repeat approximately 35% of the items from the operational forms administered in 2008. The remaining 65% of the items for the 2009 test forms will come from the pool of available items from the 2007 field test.