

## APPENDIX 1: SPRING 2008 AND 2009 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
<b>STANDARD CATEGORIES</b>	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	5	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
<b>TOTAL</b>		<b>21</b>	<b>18</b>	<b>29</b>

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		
<b>A, E–G*</b>	Nature of Science and Technology	7	3	8
<b>B</b>	Concepts of Physical Science	2	4	7
<b>C</b>	Concepts of Life Science	6	6	6
<b>D</b>	Concepts of Earth Science	6	5	8
<b>TOTAL</b>		<b>21</b>	<b>18</b>	<b>29</b>

\*Title varies by grade level.

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GRADE 4		GLEs	Total Items per Form		Operational Pt. Totals	Total No. of Items
			MC	SR		
<b>REPORTING CATEGORIES</b>	A, E, G – Inquiry, Technology, and Nature of Science	7	18	2	22	20
	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
<b>Total</b>		<b>21</b>			<b>50</b>	<b>48</b>

GRADE 8		GLEs	Total Items per Form			Operational Pt. Totals	Total No. of Items
			MC	SR	ER		
<b>REPORTING CATEGORIES</b>	A, G – Inquiry and Nature of Science	3	16	0	1	20	17
	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	5	10	1	0	12	11
<b>Total</b>		<b>18</b>				<b>62</b>	<b>56</b>

GRADE 10		GLEs	Total Items per Form			Operational Pt. Totals	Total No. of Items
			MC	SR	ER		
<b>REPORTING CATEGORIES</b>	A, E-G – Inquiry, Technology, Society, and Nature of Science	8	16	0	1	20	17
	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
<b>Total</b>		<b>29</b>				<b>64</b>	<b>56</b>

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**

	<b>MC</b>	<b>CR</b>	<b>Total Item Count</b>
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**

	<b>MC</b>	<b>CR</b>	<b>Total Item Count</b>
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) repeat approximately 35% of the items from the operational forms administered in 2008. The remaining 65% of the items for the 2009 test forms come from the pool of available items from the 2007 field test.