



## SCIENCE SUMMARY TABLE

### Grade 8

The summary table below may be used with the grade 8 science Paper-Based Item Sampler or Online Tools Training (OTT). It provides an answer key, alignment to the Alaska standards, and depth of knowledge level for each question. Please note, there are two different answer keys for each grade level: one for the paper-based item samplers and one for the OTT.

#### Paper-Based Item Sampler - Part 1

Question #	Answer Key(s)	Alignment	DOK
1	A, E	MS-LS1-4	2
2	B	MS-LS2-3	2
3	C	MS-ESS1-1b	3
4	A	MS-LS1-4	2
5	B	MS-PS1-5	2

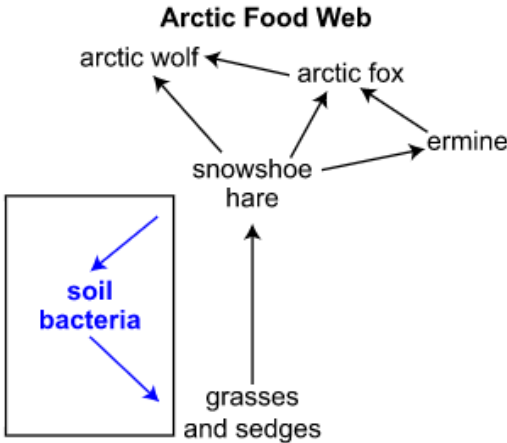
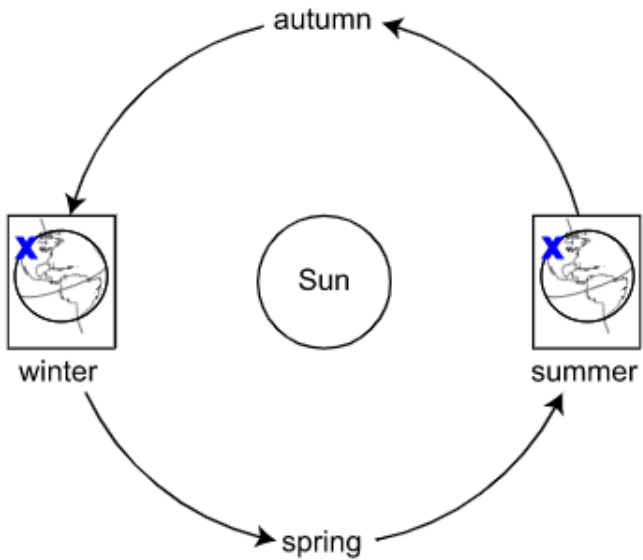
#### Paper-Based Item Sampler - Part 2

Question #	Answer Key(s)	Alignment	DOK
6	Part A: A Part B: B	MS-PS4-2	2
7	A	MS-PS2-4	2
8	A, C	MS-PS-4-2	2
9	Part A: A Part B: B	MS-ESS3-3	2
10	C, D	MS-ESS2-4	2

#### Paper-Based Item Sampler - Part 3

Question #	Answer Key(s)	Alignment	DOK
11	A	MS-PS1-4	2
12	A	MS-PS2-2	2
13	C	MS-PS4-2	2
14	C	MS-ESS3-3	2
15	D	MS-ESS1-1b	3

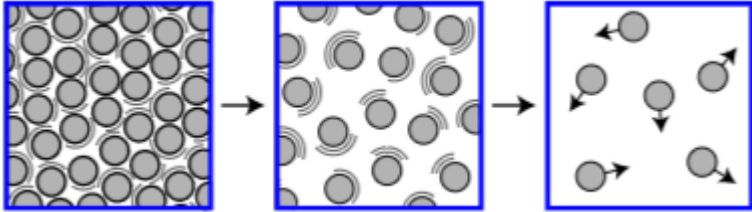
OTT - Part 1

Question #	Answer Key(s)	Alignment	DOK
1	Sentences 1 and 5	MS-LS1-4	2
2	<p style="text-align: center;"><b>Arctic Food Web</b></p>  <pre> graph TD     GS[grasses and sedges] --&gt; SH[snowshoe hare]     SH --&gt; AF[arctic fox]     SH --&gt; ER[ermine]     AF --&gt; AW[arctic wolf]     ER --&gt; AW     </pre> <p>The diagram shows an Arctic food web. At the base are 'grasses and sedges'. An arrow points up to 'snowshoe hare'. From 'snowshoe hare', two arrows point to 'arctic fox' and 'ermine'. From 'arctic fox' and 'ermine', arrows point to 'arctic wolf'. A separate box on the left contains 'soil bacteria' with two blue arrows pointing to 'grasses and sedges'.</p>	MS-LS2-3	2
3	<p>Part A</p> <p style="text-align: center;"><b>Seasonal Pattern of Earth's Orbit</b></p>  <pre> graph TD     Sun((Sun))     W[winter]     S[summer]     Sp[spring]     Au[autumn]     W --&gt; Sp     Sp --&gt; S     S --&gt; Au     Au --&gt; W     </pre> <p>The diagram shows Earth orbiting the Sun. The orbit is a circle with the Sun in the center. Four Earth diagrams are placed around the orbit, labeled 'winter', 'spring', 'summer', and 'autumn'. Arrows on the orbit indicate a counter-clockwise direction. Blue 'X' marks are on the winter and summer Earth diagrams.</p> <p>Part B D1: less D2: colder</p>	MS-ESS1-1b	3
4	A	MS-LS1-4	2
5	B	MS-PS1-5	2

OTT - Part 2

Question #	Answer Key(s)	Alignment	DOK												
6	Part A: A, Part B: B	MS-PS4-2	2												
7	A	MS-PS2-4	2												
8	A, C	MS-PS-4-2	2												
9	Part A: A, Part B: B	MS-ESS3-3	2												
10	<table border="1" style="display: inline-table; vertical-align: middle;"> <thead> <tr> <th></th> <th>Gravity</th> <th>Sunlight</th> <th>Radioactive Decay</th> </tr> </thead> <tbody> <tr> <td>precipitation</td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> <tr> <td>evaporation</td> <td style="text-align: center;"><input type="checkbox"/></td> <td style="text-align: center;"><input checked="" type="checkbox"/></td> <td style="text-align: center;"><input type="checkbox"/></td> </tr> </tbody> </table>		Gravity	Sunlight	Radioactive Decay	precipitation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	evaporation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	MS-ESS2-4	2
	Gravity	Sunlight	Radioactive Decay												
precipitation	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>												
evaporation	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>												

OTT - Part 3

Question #	Answer Key(s)	Alignment	DOK
11		MS-PS1-4	2
12	D 1: upward, D 2: greater than	MS-PS2-2	2
13	C	MS-PS4-2	2
14	C	MS-ESS3-3	2
15	<p><i>Based on prior knowledge and provided data, acceptable responses are a graph of May, June, and July or a graph of June, July, and August.</i></p> <p>A bar labeled May with a height of 49                      A bar labeled June or Jun with a height of 55                      A bar labeled July or Jul with a height of 57                      A bar labeled August or Aug with a height of 56</p>	MS-ESS1-1b	2