

**Alternate Montana Science Assessment Design and Blueprint Summary**

The Alternate Montana Science Assessment (AMSA) is administered in grades 5, 8, and 11 as an adaptive online assessment. Items are selected based on student performance on the previous items, while adhering to the test blueprint. Students will see items in a random order across disciplines throughout the test. Each student’s test will consist of 40 items based on the Alternate Academic Achievement Standards (AAAS), which are designed specifically for students with significant cognitive disabilities. The AAAS are aligned to the Montana Science Standards Performance Expectations (PEs). In addition to the 40 operational items, students will also see 10 embedded field test items within each test. The field test items do not impact student scores.

**TEST BLUEPRINT SUMMARY FOR GRADE 5**

The grade 5 test covers the Alternate Academic Achievement Standards for grades 3–5. Students will be required to apply their knowledge and skills to address content related to each standard during the assessment. The blueprint indicates all performance expectations that may be assessed within each standard on the grade 5 test.

<b>AAAS and PE Summary</b>	<b>Items</b>
<b>Discipline—Physical Science, PE Total = 15</b>	<b>12–15</b>
<b>AAAS – Matter and Its Interactions</b>	
<ul style="list-style-type: none"> <li>• PEs: 5-PS1-1, 5-PS1-2, 5-PS1-3, 5-PS1-4</li> </ul>	
<b>AAAS – Motion and Stability: Forces and Interactions</b>	
<ul style="list-style-type: none"> <li>• PEs: 3-PS2-1, 3-PS2-2, 3-PS2-3, 5-PS2-1</li> </ul>	
<b>AAAS – Energy</b>	
<ul style="list-style-type: none"> <li>• PEs: 4-PS3-1, 4-PS3-2, 4-PS3-3, 4-PS3-4, 5-PS3-1</li> </ul>	
<b>AAAS – Waves and Their Applications in Technologies for Information Transfer</b>	
<ul style="list-style-type: none"> <li>• PEs: 4-PS4-1, 4-PS4-2</li> </ul>	
<b>Discipline—Life Science, PE Total = 12</b>	<b>12–15</b>
<b>AAAS – From Molecules to Organisms: Structure and Processes</b>	
<ul style="list-style-type: none"> <li>• PEs: 3-LS1-1, 4-LS1-1, 4-LS1-2, 5-LS1-1</li> </ul>	
<b>AAAS – Ecosystems: Interactions, Energy, and Dynamics</b>	
<ul style="list-style-type: none"> <li>• PEs: 3-LS2-1, 5-LS2-1</li> </ul>	
<b>AAAS – LS3 Heredity: Inheritance and Variation of Traits</b>	
<ul style="list-style-type: none"> <li>• PEs: 3-LS3-1, 3-LS3-2</li> </ul>	
<b>AAAS – LS4 Biological Evolution: Unity and Diversity</b>	
<ul style="list-style-type: none"> <li>• PEs: 3-LS4-1, 3-LS4-2, 3-LS4-3, 3-LS4-4</li> </ul>	
<b>Discipline—Earth and Space Science, PE Total = 13</b>	<b>12–15</b>
<b>AAAS – Earth’s Place in the Universe</b>	
<ul style="list-style-type: none"> <li>• PEs: 4-ESS1-1, 5-ESS1-1, 5-ESS1-2</li> </ul>	
<b>AAAS – Earth’s Systems</b>	
<ul style="list-style-type: none"> <li>• PEs: 3-ESS2-1, 3-ESS2-2, 4-ESS2-1, 4-ESS2-2, 5-ESS2-1, 5-ESS2-2</li> </ul>	
<b>AAAS – Earth and Human Activity</b>	
<ul style="list-style-type: none"> <li>• PEs: 3-ESS3-1, 4-ESS3-1, 4-ESS3-2, 5-ESS3-1</li> </ul>	
<b>Total Operational Items</b>	<b>40</b>
<b>Total Embedded Field Test Items</b>	<b>10</b>
<b>Total Items</b>	<b>50</b>

**TEST BLUEPRINT SUMMARY FOR GRADE 8**

The grade 8 test covers the Alternate Academic Achievement Standards for grades 6–8. Students will be required to apply their knowledge and skills to address content related to each standard during the assessment. The blueprint indicates all performance expectations that may be assessed within each standard on the grade 8 test.

<b>AAAS and PE Summary</b>	<b>Items</b>
<b>Discipline—Physical Science, PE Total = 17</b>	<b>12–15</b>
<b>AAAS – Matter and Its Interactions</b>	
<ul style="list-style-type: none"> <li>• PEs: MS-PS1-1, MS-PS1-2, MS-PS1-3, MS-PS1-4, MS-PS1-6</li> </ul>	
<b>AAAS – Motion and Stability: Forces and Interactions</b>	
<ul style="list-style-type: none"> <li>• PEs: MS-PS2-1, MS-PS2-2, MS-PS2-3, MS-PS2-4, MS-PS2-5</li> </ul>	
<b>AAAS – Energy</b>	
<ul style="list-style-type: none"> <li>• PEs: MS-PS3-1, MS-PS3-3, MS-PS3-5</li> </ul>	
<b>AAAS – Waves and Their Applications in Technologies for Information Transfer</b>	
<ul style="list-style-type: none"> <li>• PEs: MS-PS4-1, MS-PS4-2</li> </ul>	
<b>Discipline—Life Science, PE Total = 18</b>	<b>12–15</b>
<b>AAAS – From Molecules to Organisms: Structures and Processes</b>	
<ul style="list-style-type: none"> <li>• PEs: MS-LS1-1, MS-LS1-2, MS-LS1-3, MS-LS1-4, MS-LS1-5, MS-LS1-6, MS-LS1-7</li> </ul>	
<b>AAAS – Ecosystems: Interactions, Energy, and Dynamics</b>	
<ul style="list-style-type: none"> <li>• PEs: MS-LS2-1, MS-LS2-2, MS-LS2-3</li> </ul>	
<b>AAAS – Hereditary: Inheritance and Variation of Traits</b>	
<ul style="list-style-type: none"> <li>• PEs: MS-LS3-1, MS-LS3-2</li> </ul>	
<b>AAAS – Biological Evolution: Unity and Diversity</b>	
<ul style="list-style-type: none"> <li>• PEs: MS-LS4-1, MS-LS4-2, MS-LS4-4, MS-LS4-5, MS-LS4-6</li> </ul>	
<b>Discipline—Earth and Space Science, PE Total = 15</b>	<b>12–15</b>
<b>AAAS – Earth’s Place in the Universe</b>	
<ul style="list-style-type: none"> <li>• PEs: MS-ESS1-1, MS-ESS1-2, MS-ESS1-3, MS-ESS1-4</li> </ul>	
<b>AAAS – Earth’s Systems</b>	
<ul style="list-style-type: none"> <li>• PEs: MS-ESS2-1, MS-ESS2-2, MS-ESS2-3, MS-ESS2-4, MS-ESS2-5, MS-ESS2-6</li> </ul>	
<b>AAAS – Earth and Human Activity</b>	
<ul style="list-style-type: none"> <li>• PEs: MS-ESS3-1, MS-ESS3-2, MS-ESS3-3, MS-ESS3-4, MS-ESS3-5</li> </ul>	
<b>Total Operational Items</b>	<b>40</b>
<b>Total Embedded Field Test Items</b>	<b>10</b>
<b>Total Items</b>	<b>50</b>

**TEST BLUEPRINT SUMMARY FOR GRADE 11**

The grade 8 test covers the Alternate Academic Achievement Standards for grades 9–11. Students will be required to apply their knowledge and skills to address content related to each standard during the assessment. The blueprint indicates all performance expectations that may be assessed within each standard on the grade 11 test.

<b>AAAS and PE Summary</b>	<b>Items</b>
<b>Discipline—Physical Science, PE Total = 7</b>	<b>9–12</b>
<b>AAAS – Matter and Its Interactions</b>	
<ul style="list-style-type: none"> <li>• PEs: HS-PS1-1, HS-PS1-5, HS-PS1-7</li> </ul>	
<b>AAAS – Motion and Stability: Forces and Interactions</b>	
<ul style="list-style-type: none"> <li>• PEs: HS-PS2-3</li> </ul>	
<b>AAAS – Energy</b>	
<ul style="list-style-type: none"> <li>• PEs: HS-PS3-5</li> </ul>	
<b>AAAS – Waves and Their Applications in Technologies for Information Transfer</b>	
<ul style="list-style-type: none"> <li>• PEs: HS-PS4-1</li> </ul>	
<b>Discipline—Life Science, PE Total=17</b>	<b>18–21</b>
<b>AAAS – From Molecules to Organisms: Structures and Processes</b>	
<ul style="list-style-type: none"> <li>• PEs: HS-LS1-1, HS-LS1-2, HS-LS1-3, HS-LS1-4, HS-LS1-5, HS-LS1-6, HS-LS1-7</li> </ul>	
<b>AAAS – Ecosystems: Interactions, Energy, and Dynamics</b>	
<ul style="list-style-type: none"> <li>• PEs: HS-LS2-1, HS-LS2-4, HS-LS2-6, HS-LS2-7</li> </ul>	
<b>AAAS – Heredity: Inheritance and Variation of Traits</b>	
<ul style="list-style-type: none"> <li>• PEs: HS-LS3-2</li> </ul>	
<b>AAAS – Biological Evolution: Unity and Diversity</b>	
<ul style="list-style-type: none"> <li>• PEs: HS-LS4-1, HS-LS4-2, HS-LS4-3, HS-LS4-4, HS-LS4-5</li> </ul>	
<b>Discipline—Earth and Space Science, PE Total = 12</b>	<b>12–15</b>
<b>AAAS – Earth’s Place in the Universe</b>	
<ul style="list-style-type: none"> <li>• PEs: HS-ESS1-1, HS-ESS1-2, HS-ESS1-3, HS-ESS1-4, HS-ESS1-5</li> </ul>	
<b>AAAS – Earth’s Systems</b>	
<ul style="list-style-type: none"> <li>• PEs: HS-ESS2-1, HS-ESS2-5, HS-ESS2-7</li> </ul>	
<b>AAAS – Earth and Human Activity</b>	
<ul style="list-style-type: none"> <li>• PEs: HS-ESS3-1, HS-ESS3-3, HS-ESS3-4, HS-ESS3-5</li> </ul>	
<b>Total Operational Items</b>	<b>40</b>
<b>Total Embedded Field Test Items</b>	<b>10</b>
<b>Total Items</b>	<b>50</b>