Students at this level succeed at many of the skills on the extended standards of the Minnesota Academic Standards in Science. Given occasional verbal, visual, and/or tactile supports which provide extra context about the task to be completed, students may demonstrate skills that include:

- Knowledge of the nature of science and engineering such as identifying how common engineered systems benefit daily life
- Knowledge of physical science such as identifying when matter has changed into a new substance; recognizing an object will move in the direction of an applied force; recognizing an object may change speed when a force is applied
- Knowledge of earth and space science such as identifying the effects of weathering, erosion, and deposition on landforms
- Knowledge of life science such as identifying organs in the respiratory, circulatory, and digestive systems (e.g., lungs, stomach, heart); recognizing that some organisms cause diseases in humans

**How did Peter perform on the Minnesota Assessments?**

Students at this level of science exceed the science skills of the Minnesota Academic Standards. Some of the skills demonstrated very consistently may include:

- **Nature of Science and Engineering:** Uses appropriate measurements, graphs and analysis to describe global natural and designed systems; recognizes how economic, political, social and ethical expectations influence engineering design solutions and scientific investigations.
- **Physical Science:** Explains an object’s motion using graphs; relates light wavelengths to specific colors; understands the relationships of frequency to wavelength; explains density using the particle model of matter.
- **Earth and Space Science:** Identifies how the structure of the atmosphere affects energy absorption; analyzes the effects of pressure systems on wind direction and weather conditions.
- **Life Science:** Explains how the living and nonliving factors influence the number of populations an ecosystem can support; explains the flow of energy through an ecosystem.

**Score Analysis By Strand**

This section reports your child’s scale score for each content area (strand) covered on the test. The charts in the far right column show a circle that represents your child’s scale score and a tolerance band that reflects the precision of that score. If the tolerance bands for strands overlap, your child’s performance on those strands should not be considered as meaningfully different.

<table>
<thead>
<tr>
<th>Overview of Strand Content</th>
<th>Scale Score</th>
<th>Scale Score Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>The Nature of Science &amp; Engineering: May include understanding how humans affect scientific investigations, designing and conducting investigations, communicating results, and refining engineering solutions</td>
<td>8</td>
<td>Below Average</td>
</tr>
<tr>
<td>Physical Science: May include differentiating between physical and chemical changes, understanding properties of waves and force and motion of an object, and describing changes in energy</td>
<td>9</td>
<td>Below Average</td>
</tr>
<tr>
<td>Earth &amp; Space Science: May include understanding how forces affect motions of objects in the universe, describing weather patterns, and understanding the processes that occur on Earth</td>
<td>9</td>
<td>Below Average</td>
</tr>
<tr>
<td>Life Science: May include identifying changes in energy within an ecosystem, understanding cell processes and genetic variation, and describing the effect of humans on ecosystems</td>
<td>8</td>
<td>Below Average</td>
</tr>
</tbody>
</table>