

# 7<sup>th</sup> Grade Benchmarks Science

Level 5 – Student performance exceeds year-end standard

Level 4 – Student performance meets year-end standard

Level 3 – Student performance approaches year-end standard

Level 2 – Student demonstrates limited performance to year-end standard

Level 1 – Student does not yet evidence understanding or application of skills related to year-end standard

NOTE: MPI and MPIO performance levels are determined based on performance expectations at the time of reporting

<b>Student Performance Standard – Student</b>	<b>Level 1 Below</b>	<b>Level 2 Limited</b>	<b>Level 3 Approaches</b>	<b>Level 4 Meets</b>	<b>Level 5 Exceeds</b>
Plans and carries out investigations.	Plans and carries out investigations with adult guidance.	Designs an investigation that may include a specific variable and control as well as methods for collecting data; design may evidence limited scientific reasoning.	Designs components of an investigation that includes independent and dependent variables and controls; includes methods for collecting data in the investigation design; specific details may be missing.	Designs an investigation individually and collaboratively that identifies independent and dependent variables and controls; evaluates the accuracy of various methods for collecting data.	In addition to Level 4 performance, extends application of scientific ideas and principles by conducting additional research and/or developing multiple designs that differ in meaningful ways.
Constructs scientific explanations and arguments.	Compares arguments with adult guidance; provides and receives critiques with adult guidance; develops arguments with adult guidance.	Compares two specific arguments on the same topic and analyzes for either similarities or differences of evidence or interpretation; provides and receives critiques by citing evidence or posing questions; arguments may lack claims, evidence or both.	Compares two topics on the same topic and analyzes for similarities and differences of evidence or interpretation; provides and receives critiques by citing some relevant evidence and posing or responding to some questions; arguments include claims and some evidence; reasoning may not be fully explained.	Compares and critiques two arguments on the same topic and analyzes whether they emphasize similar or different evidence and/or interpretations of facts; respectfully provides and receives critiques by citing relevant evidence and posing and responding to questions that elicit pertinent elaboration and detail; arguments include a claim and at least two pieces of	In addition to Level 4 performance, identifies and analyzes additional related arguments and evidence determined through research; supports peers by assisting with revisions based on critiques.

				evidence; evidence supports claim with reasoned explanations.	
Develops solutions to real-world problems.	Develops solutions to real-world problems with adult guidance.	Constructs an explanation to predict or describe phenomena that includes either qualitative or quantitative relationships between variables; explanation may evidence limited scientific reasoning; undertakes components of a specific design project to construct or implement a solution.	Constructs an explanation to predict or describe phenomena that includes qualitative or quantitative relationships between variables; applies scientific reasoning to show why some data or evidence is adequate for the explanation or conclusion; undertakes components of a design project to construct and/or implement a solution that meets some specific design criteria and constraints.	Constructs an explanation to predict and/or describe phenomena that includes qualitative or quantitative relationships between variables; applies scientific reasoning to show why the data or evidence is adequate for the explanation or conclusion; undertakes a design project to construct and/or implement a solution that meets specific design criteria and constraints.	In addition to Level 4 performance, constructs explanations that demonstrate application of additional research including conducting multiple trials, developing several iterations of models, or reaching a final solution after refining multiple preceding versions.
Evidences understanding of content and concepts.	Demonstrates understanding of specific content and concepts with adult support.	Demonstrates understanding of some content and concepts; understanding may be limited or confused.	Demonstrates understanding of most content and concepts based on unit rubrics and assessments.	Demonstrates understanding of content and concepts based on unit rubrics and assessments.	In addition to Level 4 performance, evidences understanding that exceeds grade level content and concepts.