

Science Proficiency Score Standards 1997-2002

<i>Proficiency Level</i>	Proficiency Descriptors
Advanced	<ul style="list-style-type: none"> • Demonstrates all the characteristics of proficient performance and consistently exhibits superior performance. • Identifies appropriate tools and processes for conducting scientific investigations; interprets data, draws conclusions, and communicates scientific information. • Recognizes products of technology and man's impact on the environment. • Displays an in-depth understanding of Earth's surface, changes in matter and energy, and the interrelationship of organisms to the environment. <p><i>(scale scores 671 and above)</i></p>
Proficient	<ul style="list-style-type: none"> • Demonstrates a competent level of science literacy; compares charts and graphs and communicates them to others. • Identifies the tools needed for inquiry and can communicate about simple investigations. • Competently exhibits conceptual knowledge, skills and understandings about matter, energy, life cycles and the Earth. <p><i>(scale scores 619 to 670)</i></p>
Basic	<ul style="list-style-type: none"> • Demonstrates a good portion of expected conceptual knowledge in the science content of matter, energy, earth and space and living systems. • Exhibits a somewhat competent understanding and communication of charts and/or graphs and can transfer data from one to another. <p><i>(scale scores 587 to 618)</i></p>
Minimal Performance	Limited achievement. Evidence of major misconceptions or gaps in the knowledge and skills tested.

<i>Proficiency Level</i>	Proficiency Descriptors
Advanced	<ul style="list-style-type: none"> • Demonstrates all the characteristics of proficient performance and consistently exhibits superior performance. • Interprets results of a controlled experiment, communicates about the results, and transfers the results to another experimental situation. • Demonstrates an in-depth comprehension of the content in living systems, earth and space systems, and physical systems. <p><i>(scale scores 729 and above)</i></p>
Proficient	<ul style="list-style-type: none"> • Makes inferences about an experiment. • Demonstrates a competent level of science literacy. • Demonstrates and communicates competent understanding of the concepts of living systems, earth and space science, and physical science. • Works with various types of visual displays of data and can communicate that information to others. <p><i>(scale scores 692 to 728)</i></p>
Basic	<ul style="list-style-type: none"> • Demonstrates a somewhat competent understanding of scientific concepts. • Makes observations from experiments and describes results with a limited scientific vocabulary. • Recognizes and recalls facts of life, earth and space, and physical sciences; and provides partial interpretations of those facts. • Shows partial knowledge of graphs and interpretation of charts. <p><i>(scale scores 662 to 691)</i></p>
Minimal Performance	Limited achievement. Evidence of major misconceptions or gaps in the knowledge and skills tested.

High School Science at Grade 10

<i>Proficiency Level</i>	Proficiency Descriptors
Advanced	<ul style="list-style-type: none"> • Demonstrates all the characteristics of proficient performance and consistently exhibits superior performance including application of concepts to new and real world situations. • Interprets an experiment with complex results; transfers the results of scientific inquiry to a variety of settings.

	<ul style="list-style-type: none"> Shows an in-depth understanding of how living systems, earth and space systems and physical systems are interrelated. <p><i>(scale scores 756 and above)</i></p>
Proficient	<ul style="list-style-type: none"> Demonstrates a competent level of science literacy and content knowledge. Evidence of competent understanding of the interrelationship of living systems, earth and space systems and physical science. Shows a competent understanding of science inquiry and communicates the results using scientific vocabulary. Uses logic in well developed presentations. Applies science concepts to real world situations and provides explanations of how science concepts and principles impact society. <p><i>(scale scores 718 to 755)</i></p>
Basic	<ul style="list-style-type: none"> Sometimes provides evidence of knowledge and application of scientific facts, vocabulary, concepts, and skills in science. Demonstrates somewhat competent identification, construction, and communication of results based on scientific evidence. Defines problems and designs scientific experiments that elicit reasonable conclusions somewhat competently. Demonstrates limited understandings of science concepts literacy. Demonstrates knowledge of science facts such as atomic theory, matter, chemistry, biology, earth systems. <p><i>(scale scores 685 to 717)</i></p>
Minimal Performance	Limited achievement. Evidence of major misconceptions or gaps in the knowledge and skills tested.