

# Measures of Academic Progress (MAP) Utah State-Aligned Version 1

The NWEA Goal Structure is a document that represents the content and structure of a state's standards documents. Goal structures are created through an alignment process that links state standards documents to the NWEA item bank. The MAP tests and associated reports for teachers and students are based upon this structure and alignment.

The alignment process begins with a thorough review of a state's standards documents by NWEA's curriculum specialists. The general goal areas or strands within a state's standards that appear across grade levels become the goals in the goal structure (indicated below as bold). Areas in a state's standards documents that are determined to be sub-domains of the goals/strands become the sub-goals in the goal structure (indented under each goal below).

Goal and sub-goal names from the Goal Structure are shortened for technical reasons to create the headings in DesCartes. Report Names are shortened further to accommodate report specifications.

<b>Concepts and Processes Goal Structure</b>	<b>Concepts and Processes DesCartes</b>	<b>Concepts and Processes Report Names</b>
<b>Use Science Process and Thinking Skills</b>	<b>Science Process and Thinking Skills</b>	<b>Science Process and Skills</b>
Observe objects, events and patterns and record both qualitative and quantitative information	Observe for Patterns and Record Observations	
Evaluate, sort, and sequence data according to given criteria	Evaluate, Sort, and Sequence Data to Criteria	
Predict results of investigations based on prior data	Predict Results of Investigations on Prior Data	
Develop and use categories to classify subjects studied	Develop, Use Categories to Classify Subjects	
Select the appropriate instrument; measure, calculate, and record in metric units, length, volume, temperature and mass, to the accuracy of instruments used	Given an Instrument, Measure in Metric Units	
Plan and conduct experiments	Plan and Conduct Experiments	
Analyze data, check it for accuracy and construct reasonable conclusions	Use Data to Construct a Reasonable Conclusion	
Distinguish between factual statements and inferences	Distinguish Between Factual and Inference	
Use comparisons to help understand observations and phenomena	Compare Things, Processes, and Events	

Communicate using science language, reasoning	Communicate Using Science Language, Reasoning	
<b>Nature of Science</b>	<b>Nature of Science</b>	<b>Nature of Science</b>
Manifest Scientific Attitudes and Interests: Raise questions about objects, events and processes that can be answered through scientific investigation; Check reports of observations for accuracy; Accept and use scientific evidence to help resolve ecological problems; Seek and weigh evidence before drawing conclusions	Manifest Scientific Attitudes and Interests	
Demonstrate Awareness of Social and Historical Aspects of Science: Cite examples of how science affects human life; Understand the cumulative nature of the development of science knowledge; Give instances of how technological advances have influenced the progress of science and how science has influenced advances in technology	Awareness of Social, Historical Aspects of Science	
Demonstrate Understanding of the Nature of Science: Science is a way of knowing that is used by many people, not just scientists; Science findings are based upon evidence; Understand that science conclusions are tentative and therefore never final. Understandings based upon these conclusions are subject to revision in light of new evidence; Understand that scientific conclusions are based on the assumption that natural laws operate today as they did in the past and that they will continue to do so in the future; Understand that various disciplines of science are interrelated and share common rules of evidence to explain phenomena in the natural world; Understand that science and technology may raise ethical issues for which science, by itself, does not provide solutions	Understanding of the Nature of Science	
Construct models, simulations, mathematics and metaphors to describe and explain natural phenomena.	Models, Simulations, and Math to Explain Phenomena	

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General Science Goal Structure	General Science DesCartes	General Science Report Names
<b>Earth and Space</b>	<b>Earth and Space</b>	<b>Earth and Space</b>
Earth, Moon, Universe and solar system	Earth, Moon, Universe and Solar System	
Atmosphere, weather, and water cycle	Atmosphere, Weather, and Water Cycle	
Formation and properties of rocks, soil and the Earth's surface	Formation, Properties: Rocks, Soil, Surface	
<b>Physical Science and Chemistry</b>	<b>Physical Science and Chemistry</b>	<b>Physical Sci Chemistry</b>
Force applied to an object and resulting motion	Force Applied to an Object and Resulting Motion	
Chemical and physical changes	Chemical and Physical Changes	
Properties and behavior of heat, light, and sound	Properties, Behavior of Heat, Light, and Sound	
Structure of matter	Structure of Matter	
Nature of change in matter	Nature of Change in Matter	
Energy	Energy	
<b>Organisms; Biology</b>	<b>Organisms; Biology</b>	<b>Organisms; Biology</b>
Environment	Environment	
Classification	Classification	
Traits and genetics	Traits and Genetics	
Microorganisms and cells	Microorganisms and Cells	
Structure and function of organs and organ systems.	Structure, Function: Organs and Organ Systems	
Matter and energy in ecosystems	Matter and Energy in Ecosystems	