Measures of Academic Progress (MAP) Pennsylvania 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

Concepts and Processes Goal Structure	Concepts and Processes DesCartes	Concepts and Processes Report Names
Unifying Themes	**Unifying Themes**	**Unifying Themes**
Know, explain, discriminate, or apply concepts of parts and systems, subsystems, feedback and control to solve complex technological problems	Parts, Systems, Subsystems, Feedback, Control	
Know, describe, or apply concepts of models and scale as a method to predict and understand science and technology	Models and Scale	
Illustrate, identify, apply, or assess patterns in science and technology	Patterns in Science and Technology	
Recognize, identify, describe, or evaluate change in nature, physical systems and man made systems	Change: Nature, Physical, and Man Made Systems	
Science, technological design, human endeavors: analyze and use the technological design process to solve problems; science, technology and human endeavors	Science, Technological Design, Human Endeavors	

Inquiry and Design	Inquiry and Design	Inquiry and Design
Identify, explain, apply, or evaluate the nature of scientific and technological knowledge	Nature of Scientific, Technological Knowledge	
Describe, apply, or evaluate experimental information for appropriateness and adherence to relevant science processes	Appropriateness, Adherence to Relevant Process	
Recognize, apply, identify, use, or apply the elements of scientific inquiry to solve multi-step problems	Inquiry to Solve Multi-Step Problems	

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General Science Goal Structure	General Science DesCartes	General Science Report Names
Biological Sciences	**Biological Sciences**	**Biological Science**
Know, describe, or explain structural and functional similarities, or differences found among living things	Similarities, Differences Among Living Things	
Know, describe, or analyze that living things; organisms are made up of parts; cells; or have a chemical and structural basis	Organism: Parts; Cells; Chemical, Structural Basis	
Know, describe, or explain that characteristics are inherited; that every organism has a set of genetic instructions that determines its inherited traits; genetic information is inherited and expressed; or that gene inheritance and expression at the molecular level	Characteristics Inherited; Genetic Instructions	
Identify, explain, or analyze changes in living things over time; basic concepts of natural selection; mechanisms of the theory of evolution; or the theory of evolution	Change Over Time, Natural Selection; Evolution	
Ecosystems and the environment: watersheds and wetlands, agriculture and society, ecosystems and their interactions, and humans and the environment	Ecosystems and the Environment	
Physical Science, Chemistry and Physics	**Phys Science, Physics, Chemistry**	**Physical Science**
Recognize, describe, explain, or apply concepts about the structure and properties of matter	Structure and Properties of Matter	
Know, relate, analyze, or apply energy types, sources, or conversions	Energy; Types, Sources, or Conversions	
Observe, Identify, distinguish or apply the principals of force and motion	Principals of Force and Motion	
Describe, explain, or analyze the essential ideas about the composition and structure of the universe	Composition and Structure of the Universe	
Earth Sciences	**Earth Sciences**	**Earth Science**
Know, describe, or relate Earth landforms, history, features and processes	Landforms, History, Features and Processes	

Know, recognize, explain, or analyze, uses of earth materials; how resources effect everyday life; or availability, location and extraction of earth materials	Earth Materials: Uses Effect Life; Availability	
Know, describe, interpret, or analyze basic elements of weather (meteorology); meteorological data; or atmospheric energy transfers	Weather; Data; or Atmospheric Energy Transfers	
Recognize, explain, assess, or analyze: the earth's different water resources; the behavior and impact of the earth's water systems; the value of water as a resource; or the principles and history of hydrology	Water Resources; Earth's Water Systems	