AP ENVIRONMENTAL SCIENCE

Science Practices

Practice 1	Practice 2	Practice 3	Practice 4
Concept Explanation 1 Explain environmental concepts, processes, and models presented in written format.	***Visual Representations*** 2 Analyze visual representations of environmental concepts and processes.	***Text Analysis*** 3 Analyze sources of information about environmental issues	***Scientific Experiments*** 4 Analyze research studies that test environmental principles
SKILLS			
1.A Describe environmental concepts and processes. 1.B Explain environmental concepts and processes. 1.C Explain environmental concepts, processes, or models in applied contexts.	2.A Describe characteristics of an environmental concept, process, or model represented visually. 2.B Explain relationships between different characteristics of environmental concepts, processes, or models represented visually: ▪ In theoretical contexts ▪ In applied contexts 2.C Explain how environmental concepts and processes represented visually relate to broader environmental issues.	3.A Identify the author's claim. 3.B Describe the author's perspective and assumptions. 3.C Describe the author's reasoning (use of evidence to support a claim). 3.D Evaluate the credibility of a source *(not assessed)*: ▪ Recognize bias ▪ Scientific accuracy 3.E Evaluate the validity of conclusions of a source or research study *(not assessed)*.	4.A Identify a testable hypothesis or scientific question for an investigation. 4.B Identify a research method, design, and/or measure used. 4.C Describe an aspect of a research method, design, and/or measure used. 4.D Make observations or collect data from laboratory setups *(not assessed)*. 4.E Explain modifications to an experimental procedure that will alter results.

Science Practices *(cont'd)*

Practice 5	Practice 6	Practice 7
Data Analysis 5 Analyze and interpret quantitative data represented in tables, charts, and graphs	***Mathematical Routines*** 6 Apply quantitative methods to address environmental concepts	***Environmental Solutions*** 7 Propose and justify solutions to environmental problems
5.A Describe patterns or trends in data.	**6.A** Determine an approach or method aligned with the problem to be solved.	**7.A** Describe environmental problems.
5.B Describe relationships among variables in data represented.	**6.B** Apply appropriate mathematical relationships to solve a problem, with work shown (e.g., dimensional analysis).	**7.B** Describe potential responses or approaches to environmental problems.
5.C Explain patterns and trends in data to draw conclusions.	**6.C** Calculate an accurate numeric answer with appropriate units.	**7.C** Describe disadvantages, advantages, or unintended consequences for potential solutions.
5.D Interpret experimental data and results in relation to a given hypothesis.		**7.D** Use data and evidence to support a potential solution.
5.E Explain what the data implies or illustrates about environmental issues.		**7.E** Make a claim that proposes a solution to an environmental problem in an applied context.
		7.F Justify a proposed solution, by explaining potential advantages.