Science & Engineering Practices (SEPs)
(Ask students to do these; these are verbs/processes)

1. Asking Questions (for science) and Defining Problems (for engineering)
2. Developing and Using Models
3. Planning and Carrying Out Investigations
4. Analyzing and Interpreting Data
5. Using Mathematics and Computational Thinking
6. Constructing Explanations (for science) and Designing Solutions (for engineering)
7. Engaging in Argument from Evidence
8. Obtaining, Evaluating, and Communicating Information

Disciplinary Core Ideas (DCIs)
(Target one core-idea code per question—use precise terminology)

Domain	Core Idea Codes & Names
Physical Sciences (PS)	PS1.A: Structure of Matter • PS1.B: Chemical Reactions • PS1.C: Nuclear Processes • PS2.A: Forces and Motion • PS2.B: Types of Interactions • PS2.C: Stability and Instability in Physical Systems • PS3.A: Definitions of Energy • PS3.B: Conservation of Energy and Energy Transfer • PS3.C: Relationship Between Energy and Forces • PS3.D: Energy in Chemical Processes and Everyday Life • PS4.A: Wave Properties • PS4.B: Electromagnetic Radiation • PS4.C: Information Technologies and Instrumentation
Life Sciences (LS)	• LS1.A: Structure and Function • LS1.B: Growth and Development of Organisms • LS1.C: Organization for Matter and Energy Flow in Organisms • LS1.D: Information Processing • LS2.A: Interdependent Relationships in Ecosystems • LS2.B: Cycles of Matter and Energy Transfer in Ecosystems • LS2.C: Ecosystem Dynamics, Functioning, and Resilience • LS2.D: Social Interactions and Group

	Behavior • LS3.A: Inheritance of Traits • LS3.B: Variation of Traits • LS4.A: Evidence of Common Ancestry and Diversity • LS4.B: Natural Selection • LS4.C: Adaptation • LS4.D: Biodiversity and Humans
Earth & Space Sciences (ESS)	• ESS1.A: The Universe and Its Stars • ESS1.B: Earth and the Solar System • ESS1.C: The History of Planet Earth • ESS2.A: Earth's Materials and Systems • ESS2.B: Plate Tectonics and Large-Scale System Interactions • ESS2.C: The Roles of Water in Earth's Surface Processes • ESS2.D: Weather and Climate • ESS2.E: Biogeology • ESS3.A: Natural Resources • ESS3.B: Natural Hazards • ESS3.C: Human Impacts on Earth Systems • ESS3.D: Global Climate Change
Engineering, Technology & Applications of Science (ETS)	• ETS1.A: Defining and Delimiting an Engineering Problem • ETS1.B: Developing Possible Solutions • ETS1.C: Optimizing the Design Solution

Crosscutting Concepts (CCCs)
(Frame the question so students apply one of these lenses)

1. Patterns
2. Cause and Effect: Mechanism and Explanation
3. Scale, Proportion, and Quantity
4. Systems and System Models
5. Energy and Matter: Flows, Cycles, and Conservation
6. Structure and Function
7. Stability and Change