

1. Scientific Practices and Inquiry

- Experimental design
- Variables and fair testing
- Measurement and precision
- Data tables and graphs
- Interpreting trends
- Fairness, repeatability, and usefulness of results; introductory reliability and validity
- Models and representations
- Claim-evidence-reasoning
- Simple engineering/design thinking: identify a problem, choose materials, test, evaluate, and improve
- Laboratory and classroom safety

2. Life Science

- Cells: introductory structure and function
- Introductory microscopy and image interpretation
- Body systems and their interaction
- Body balance / homeostasis as an introductory idea
- Ecosystems and food webs
- Matter and energy in ecosystems
- Reproduction
- Heredity at an introductory level
- Adaptations
- Microorganisms
- Patterns, cause-effect relationships, and systems in living things

3. Chemistry and Matter

- Particle model of matter
- Classification of matter
- Solids, liquids, gases, and changes of state
- Solutions and dissolving
- Separation methods
- Density at an introductory level
- Physical and chemical changes at an age-appropriate level
- Conservation at an introductory level
- Acids and bases at an introductory level
- Properties of materials and practical uses
- Safe handling of substances

4. Physics

- Forces and net force
- Friction
- Motion in simple quantitative contexts
- Energy forms and transfers
- Heat transfer
- Electricity
- Circuits and circuit faults
- Waves
- Sound and light
- Models and evidence in physical systems
- Technology applications of physics ideas

5. Earth and Space Science

- Rock cycle
- Plate tectonics at an introductory level
- Weather and climate
- Water resources
- Space and gravity
- Earth systems interaction
- Earth materials and resources
- Environmental change and sustainability
- Models and data in Earth and space science

6. Science, Technology, Society, and Environment

- Science in everyday technologies
- Human impacts on ecosystems and resources
- Energy use and efficiency
- Water, materials, and waste
- Health, safety, and responsible choices
- Evaluating simple scientific claims
- Science-related careers and community applications
- Responsible use of science and technology