

1. Scientific Practices and Inquiry

- Variables
- Procedure
- Measurement
- Data tables
- Graphs
- Reliability
- Validity
- Claim-evidence-reasoning
- Models and representations
- Method evaluation and improvement
- Simple engineering/design thinking: identify a problem, design, test, evaluate, and improve
- Laboratory and classroom safety

2. Life Science

- Cells
- Transport in cells
- Enzymes
- Respiration
- Photosynthesis
- Genetics at an introductory level
- Variation
- Natural selection
- Ecology
- Cycles in ecosystems
- Matter and energy in living systems
- Patterns, cause-effect relationships, and systems in life science

3. Chemistry and Matter

- Particle model
- Atoms and ions
- Periodic patterns
- Introductory bonding and particle-attraction ideas
- Reactions
- Conservation
- Acids and bases
- Separation methods
- Classification of substances
- Properties of materials and practical applications
- Laboratory safety and responsible handling of substances

4. Physics

- Motion graphs
- Forces
- Pressure
- Energy
- Heating
- Electricity
- Waves, sound, and light
- Models, measurements, and evidence in physical systems
- Technology applications of physical science ideas

5. Earth and Space Science

- Plate tectonics
- Weather vs climate
- Climate
- Weather systems
- Resources
- Space and gravity
- Solar System scale and orbital motion at an introductory level
- Earth systems interaction
- Rock cycle and Earth materials where appropriate
- 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, climate, and waste
- Health, safety, and responsible choices
- Evaluating scientific claims
- Science-related careers and community applications
- Responsible use of science and technology
- Evidence quality, uncertainty, and limitations at an introductory level