



ROCKRIDGE SECONDARY SCHOOL

Subject Group Overview: Sciences

| SCIENCES — YEAR 3 | | | | | | | |
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| UNIT | KEY CONCEPT | RELATED CONCEPT(S) | GLOBAL CONTEXT | STATEMENT OF INQUIRY (BC BIG IDEA) | SUMMATIVE(S) | OBJECTIVES | ATLs |
| Biology: Cells and Immunology | Systems | Form Function | Scientific and Technical Innovation | Life processes are performed at the cellular level. | Unit Test and Checkpoint | A: i, ii, iii | Communication: Language Thinking: Transfer Research: Information Literacy |
| | | | | | Fermentation Lab | B:i, ii, iv | Communication: Language Thinking: Critical-Thinking, Creative-Thinking |
| | | | | | Biomimicry Screencast | D:i, ii, iii, iv | Thinking: Critical-Thinking Communication: Interaction Research: Information Literacy |
| | | | | | Vaccine Screencast | D:i, ii, iii, iv | Thinking: Critical-Thinking Communication: Interaction Research: Information Literacy |
| Chemistry: An Introduction | Systems | Models Patterns | Scientific and Technical Innovation | The behaviour of matter can be explained by the kinetic molecular theory and atomic theory. | Checkpoint | A: i, ii, iii | Communication: Language Thinking: Transfer Research: Information Literacy |
| | | | | | Bounty Lab | B: i, iii, iv | Communication: Language Research: Information Literacy Thinking: Critical-Thinking |
| | | | | | Versatile Viscosity Lab | C: ii, iv, v | Thinking: Critical-Thinking Research: Information Literacy |
| Physics: Light | Relationships | Form Function Transformation | Scientific and Technical Innovation | Energy can be transferred as both a particle and a wave. | Unit Test | A: i, ii, iii | Communication: Language Thinking: Transfer Research: Information Literacy |
| | | | | | Refraction Lab | C: i, ii | Research: Information Literacy Thinking: Critical-Thinking |

| Science Fair | Relationships | Evidence Patterns | Scientific and Technical Innovation | By observing and analyzing patterns of interactions, we can gather evidence to develop models that enable us to better understand the world. | Science Fair (Design and Presentation?) | B: i, ii, iii, iv C: i, ii, iv, v D: i, ii, iii, iv | Communication: Language, Interaction Thinking: Critical-Thinking, Creative-Thinking Research: Information Literacy |
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| SCIENCES — YEAR 4 | | | | | | | |
| UNIT | KEY CONCEPT | RELATED CONCEPT(S) | GLOBAL CONTEXT | STATEMENT OF INQUIRY (BC BIG IDEA) | SUMMATIVE(S) | OBJECTIVES | ATLs |
| Biology: Reproduction | Systems | Form Transformation | Identities and Relationships | Cells are derived from cells. | Unit Test | A: i, ii, iii | Communication: Language Thinking: Transfer Research: Information Literacy |
| | | | | | Mitosis Model | A: i, ii, iii | Communication: Language Thinking: Transfer Research: Information Literacy |
| | | | | | Reflection: The Impacts of Reproductive Tech | D: i, ii, iii, iv | Thinking: Critical-Thinking Communication: Interaction Research: Information Literacy |
| | | | | | Article Analysis | D: i, ii, iii, iv | Thinking: Critical-Thinking Communication: Interaction Research: Information Literacy |
| Chemistry: Atoms, Elements and Compounds | Systems | Models Patterns | Scientific and Technical Innovation | The electron arrangement of atoms impacts their chemical nature. | Unit Test | A: i, ii, iii | Communication: Language Thinking: Transfer Research: Information Literacy |
| | | | | | Design Lab: Bath Bomb | B: i, ii, iii, iv C: i, ii, iii, iv, v | Communication: Language Thinking: Critical-Thinking, Creative-Thinking Research: Information Literacy |
| | | | | | Article Analysis | D: i, ii, iii, iv | Thinking: Critical-Thinking Communication: Interaction Research: Information Literacy |

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| Physics: Electricity | Relationships | Energy Interaction Transformation | Globalization and Sustainability | Electric current is the flow of electric change. | Unit Test | A: i, ii, iii | Communication: Language Thinking: Transfer Research: Information Literacy |
| | | | | | Design Lab: Circuits | B: i, ii, iii, iv C: i, ii, iii, iv, v | Communication: Language Thinking: Critical-Thinking, Creative-Thinking Research: Information Literacy |
| | | | | | Article Analysis | D: i, ii, iii, iv | Thinking: Critical-Thinking Communication: Interaction Research: Information Literacy |
| Ecosystems | Relationships | Consequences Interaction Environment | Globalization and Sustainability | The biosphere, geosphere, hydrosphere, and atmosphere are interconnected, as matter cycles and energy flows through them. | Ecosystem-Jar Project | A: i, ii, iii | Communication: Language Thinking: Transfer Research: Information Literacy |
| | | | | | Article Analysis | D: i, ii, iii, iv | Thinking: Critical-Thinking Communication: Interaction Research: Information Literacy |

SCIENCES — YEAR 5

| UNIT | KEY CONCEPT | RELATED CONCEPT(S) | GLOBAL CONTEXT | STATEMENT OF INQUIRY (BC BIG IDEA) | SUMMATIVE(S) | OBJECTIVES | ATLs |
|-------------------|---------------|------------------------------------|--|--|--|-----------------------------|---|
| Biology: Genetics | Relationships | Consequences Function Models | Scientific and Technical Innovation | DNA is the basis for the diversity of living things. | Unit Test | A: i, ii, iii | Communication: Language Thinking: Transfer Research: Information Literacy |
| | | | | | Design Lab: Blood | B: i, iv C: i, ii, iv, v | Communication: Language Thinking: Critical-Thinking Research: Information Literacy |
| | | | | | Reflection: The Impacts of Genetic Science | D: i, ii, iii, iv | Thinking: Critical-Thinking Communication: Interaction Research: Information Literacy |

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| | | | | | Reflection: The Impacts of CRISPR | D: i, ii, iii, iv | Thinking: Critical-Thinking Communication: Interaction Research: Information Literacy |
| Chemistry: Chemical Reactions | Change | Balance Interaction Models | Scientific and Technical Innovation | Energy change is required as atoms rearrange in chemical processes. | Unit Test | A: i, ii, iii | Communication: Language Thinking: Transfer Research: Information Literacy |
| | | | | | Design Lab: Reactivity Series / Types of Chemical Reactions | B: i, ii, iii, iv C: i, ii, iii, iv, v | Communication: Language Thinking: Critical-Thinking, Creative-Thinking Research: Information Literacy |
| | | | | | Infographic: Chemistry that Changed the World | D: i, ii, iii, iv | Thinking: Critical-Thinking Communication: Interaction Research: Information Literacy |
| Physics: Energy | Relationships | Energy Transformation | Scientific and Technical Innovation | Energy is conserved, and its transformation can affect living things and the environment. | Unit Test | A: i, ii, iii | Communication: Language Thinking: Transfer Research: Information Literacy |
| | | | | | Design Lab: Inclined Plane | B: i, ii, iii, iv C: i, ii, iii, iv, v | Communication: Language Thinking: Critical-Thinking, Creative-Thinking Research: Information Literacy |
| | | | | | Lab: Marble Roller Coaster | C: ii, iv | Thinking: Critical-Thinking |
| | | | | | Reflection: The Impacts of Site C and the Transmountain Pipeline | D: i, ii, iii, iv | Thinking: Critical-Thinking Communication: Interaction Research: Information Literacy |
| Space Science | Change | Energy Evidence Models | Orientation in Space and Time | The formation of the universe can be explained by the big bang theory. | Reflection: The Impacts of the Thirty Metre Telescope / The impacts of Space Science | D: i, ii, iii, iv | Thinking: Critical-Thinking Communication: Interaction Research: Information Literacy |