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| **MYP Year:** | 1 |  **Subject Group:** | Science |

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| **Unit Title** | **Key Concept** *(1)* | **Related Concepts** *(2)* | **Global Context** *(1)* | **Statement of Inquiry** *(1 + 2 + 1)* | **MYP subject-group objective(s)***(Assessment Criteria)* | **Content**(topics, knowledge, skills) |
| **Think Like a Scientist** | Systems | FormFunction | Scientific and Technical Innovation | The Scientific Method allows us to investigate the form and function of patterns observed in natural systems. | A, B | The scientific method; Write a testable question and hypothesis; Manipulated, responding, and controlled variables; Observation vs Inference; Writing Conclusions;Lab Safety |
| **ATL Skills** | *(goal is how to be a successful student in science class)***Category:** Communication **Cluster:** Communication **Skill Indicator:** structure information in summaries, essays, and reports**Category:** Self-management **Cluster:** Reflection **Skill Indicator:** Develop new skills, techniques, and strategies for effective learning**Category:**  Self-management **Cluster:** Organization **Skill Indicator:** bring necessary equipment and supplies to class, keep an organized and logical system of information files/notebooks |
| **Discovering Electricity** | Systems | EnergyMovement | Globalization and Sustainability | Energy produced by the movement of electricity through circuitry systems can impact our decisions as consumers. | A, D | Magnetism; Electric circuits and components; Properties of Systems; Electromagnetism;Insulators, conductors, and resistance |
| **ATL Skills** | *(apply scientific knowledge to understand global issue )***Category:** Communication **Cluster:** Communication **Skill Indicator:** Structure information in summaries, essays, and reports**Category:** Research **Cluster:** Media Literacy **Skill Indicator:** locate, organize, analyze, evaluate, synthesize, and ethically use information**Category:** Thinking **Cluster:** Critical Thinking **Skill Indicator:** Recognize unstated assumptions and bias**Category:** Thinking **Cluster:** Creative Thinking **Skill Indicator:** ask “what if” questions and generate testable hypotheses |
| **Ride the Behavior of Waves** | Relationships | EnergyMovement and Interaction | Scientific and Technological Innovation | Engineers use properties of waves to design everyday tools. | A, B | Wave Behavior; Properties of Waves; Properties of Sound;Electromagnetic Spectrum and Communication; Properties of Light; Color |
| **ATL Skills** | *(conduct investigations and participate in activities with less teacher direction)***Category:** Self-Management **Cluster:** Organization **Skill Indicator:** use appropriate strategies for organizing complex information**Category: Self-Management Cluster:** Affective Skills **Skill Indicator:** self-motivation and resilience**Category:** Thinking **Cluster:** Critical Thinking **Skill Indicator:** use models and simulations to explore complex systems and issues |
| **What’s the MATTER with Chemistry** | Change | Form Interaction | Identities and Relationships | We identify a substance based on its characteristics. | A, C | Properties of matter; elements and compounds; Mixtures and solutions; Density; Physical and chemical changes; Relationship between forms of energy and changes in matter.States of matter; Relationship between volume, temperature, and pressure of a gas |
| **ATL Skills** | *(Demonstrate understanding of material in a creative way)***Category:** Thinking **Cluster:** Creative-Thinking **Skill Indicator:** generate metaphors and analogies**Category:** Communication **Cluster:** Communication **Skill Indicator:** use a variety of media to communicate with a range of audiences**Category:** Self-management **Cluster:** Organization **Skill Indicator:** plan short and long-term assignments, meet deadlines |
| **We Can Make It Better! Ice Cream Design Challenge** | Development | FormFunction | Scientific and Technological Innovation | Human ingenuity drives the development of innovative products. | Design Criterion C, D | Relationship between temperature of a substance and the average kinetic energy of the particles that make up a substance;States of matter and thermal energy in relation to making ice cream; The design cycleMS-PS1-4; MS-PS1-6 MS-PS3-3; MS-PS3-4 MS-PS3-5 |
| **ATL Skills** | Goal:*(work collaboratively in groups and communicate positively)***Category:** Communication **Cluster:** Communication **Skill Indicator:** negotiate ideas and knowledge with peers and teacher.**Category:** Social **Cluster:** Collaboration Skills **Skill Indictator:** manage and resolve conflict, work collaboratively in teams; listen actively to other perspectives and ideas; exercise leadership and take on a variety of roles within groups**Category:**  Thinking **Cluster:**  Creative Thinking **Skill Indictator:** design improvements to existing machines, media, and technologies**Category:**  Thinking **Cluster:** Transfer **Skill Indicator:** combine knowledge, understanding, and skills to create products or solutions |

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| **Ecosystems and Inter- dependence** | Relationships | Energy Interaction | Globalization and Sustainability | Understanding relationships in an ecosystem impacts the decisions we make globally. | A, D | What are ecosystems; abiotic and biotic factors; Effect on populations of organisms that live in an ecosystem; Limiting Factors; Interactions between living things (symbiotic/commensalism, parasitism, mutualism, predator-prey, competition)Energy Flow in ecosystems;Food Chains and Food Webs;Carbon and Nitrogen Cycles;Biodiversity |
| **ATL Skills** | *(goal: write for a variety of purposes, show more effort in the writing)***Category:** Communication **Cluster:** Communication **Skill Indicator:** use a variety of organizers for academic writing tasks.**Category:** Communication **Cluster:** Communication **Skill Indicator:** structure information in summaries, essays, and reports**Category:** Self-management **Cluster:** Organization **Skill Indicator:** plan short and long term assignments; meet deadlines |