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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 | Form  Function | 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 | Energy  Movement | 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 | Energy  Movement 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 | Form  Function | 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 cycle  MS-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 | | | | | |