Subject Aims

- Understand and appreciate science and its implications
- Consider science as a human endeavor with benefits and limitations
- Cultivate analytical, inquiring and flexible minds that pose questions, solve problems, construct explanations and judge arguments
- Develop skills to design and perform investigations, evaluate evidence and reach conclusions
- Build an awareness of the need to effectively collaborate and communicate
- Apply language skills and knowledge in a variety of real-life contexts
- Develop sensitivity towards the living and non-living environments
- Reflect on learning experiences and make informed choices.

Keys to Class

- **iScience** McGraw Hill – Life, Physical, and Earth/Space –
  - Classroom sets of hardcopy textbooks
  - PDFs made available through OneNote
  - LearnSmart® access for each textbook
  - eBook availability
- **OneNote** – Content Manager
  - Course assignments, readings, laboratory investigations, supplementary material and reflections.
  - Primary location for collaboration and project work.
- **21st Century Learning Design within the IB Framework** – Students assessed through IB criteria; Assessments designed with 21st Century Learning principles.
  - Collaboration
  - Communication
  - Knowledge Construction
  - Self-Regulation
  - Real-World Context
  - Applying Technology
## Objective Criterion

### Objective A: Knowing and Understanding
- Are students able to explain scientific knowledge using the appropriate language?
- Can students apply their scientific knowledge to solve problems in new and unfamiliar situations?
- Can students use and evaluate information to make scientifically supported judgements?

### Objective B: Inquiring and Designing
- Can students explain a problem or question that can be tested by a scientific investigation?
- Can students formulate a testable hypothesis that can identify independent and dependent variables as well as a logical justification for their relationship?

### Objective C: Processing and Evaluating
- Can students present collected data and transform data to reflect meaningful analysis?
- Are students able to evaluate a hypothesis based on experimental results as well as the validity of the experimental method?

### Objective D: Reflecting on the Impacts of Science
- Are students able to connect scientific topics and relate them to specific real-world issues?
- Are students able to discuss the implications of scientific breakthroughs or discoveries and their relevance?
- Can students document the work of others and sources of information used?

## Content Brief

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