

## **COURSE OUTLINE**

### **SUBJECT: SCIENCE**

Curriculum reflects NGSS and MYP Learning Standards

**GRADE: 6**

#### **Anticipated student outcomes:**

*By June of this year, students in this class should be able to...*

- Make qualitative and quantitative observations. Make inferences based on those observations.
- Learn about the three states of matter.
- Understand phase changes along with reading a phase change diagram
- Describe physical versus chemical changes.
- Integrate the steps of the scientific method in various classroom investigations.
- Measure the length, mass and volume of regular and irregular shaped objects using the appropriate lab instruments and convert within the metric system.
- Investigate the structure of an atom, calculate atomic mass and atomic number.
- Draw an atom using the Bohr model.
- Recognize and access information from the Periodic Table of Elements.
- Understand the difference between an element, compound and mixture.
- Recognize and read chemical formulas for atomic and molecular makeup.
- Understand Newton's Laws.
- Observe, describe, and compare effects of forces on the motion of objects.
- Determine the speed of a moving object.
- Understand the relationship between kinetic and potential energy.
- Know the different forms of energy and identify energy conversions.
- Explain the differences between Renewable and Non Renewable resources.

**Materials required or used:**

To Be Determined

**Criteria for grading:**

Students will be graded using the averaging system. Students' grades will reflect their class participation, quizzes, homework, labs, projects and tests.

The course also engages the four IB Middle Years Program (MYP) learning and assessment Criteria.

Criterion A –Knowing & Understanding – through classroom presentations, demonstrations and evaluations

Criteria B and C – Inquiring & Designing and Processing - Evaluating by means of hands-on lab activities

Criterion D – Reflecting on the Impacts of Science through student created presentations, projects, and reflective pieces.

**Opportunities for Enrichment:** Approved sites for Article Reviews

[www.timeforkids.com](http://www.timeforkids.com)

[www.sciencenewsforkids.org](http://www.sciencenewsforkids.org)

[www.nytimes.com](http://www.nytimes.com)

[https://phet.colorado.edu/\\_m/](https://phet.colorado.edu/_m/)

*Outline developed by:* The Science Department

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