



# Loyola

## HIGH SCHOOL

### Secondary 1 Science & Technology

**Teacher:** E. Sorensen, SJ

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**Supplies:** Pencil, pens and eraser  
Calculator  
One three ring binder (small to medium sized 1.5" or 2")  
Lined loose leaf paper (at least 25 sheets)  
5 dividers  
Metric graph paper (10 sheets)  
iPad – which should always be charged with no apps running during class.  
A pair of headphones – small ear-bud type are recommended.

**Resources:** Eureka, Science and Technology, Student Textbook  
Supplemental Material: Teacher handouts and worksheets  
Website: (Google Classroom)

The above equipment is required for every lesson. Failure to bring an item will result in JUG.

#### Evaluation

Students will be evaluated in the following ways:

- Unit tests and written work (60%)
  - Lab reports and activities (40%)
  - Exam (June, worth 50% of each term's theory mark)

#### Competencies

Competency	Wording in report card	Relative value
1- Lab work	Practical	40%
2- Written work	Theory	60%

#### Terms and report cards

Term	End of term	Relative value
1	November 2 <sup>nd</sup>	20%
2	February 13 <sup>th</sup>	20%
3	May 30 <sup>th</sup>	60%

#### Homework

Homework will be checked regularly and periodically may be marked. Labs are done in teams but work is to be handed in individually. Plagiarism will not be tolerated. Students are required to check the Google Classroom page daily for course updates, including homework.

#### Extra Help

All students are encouraged to ask for extra help and will be provided upon request. Extra help

sessions will take place before all major tests. There is no formal extra-help hours for this course but students are encouraged to contact me for after school help sessions, as needed.

## Course Content

Term 1	Term 2	Term 3
<p><b>Astronomical Phenomenon</b></p> <ul style="list-style-type: none"> <li>● Universal gravitation</li> <li>● Solar system</li> <li>● Light (properties)</li> <li>● Cycles of day and night</li> <li>● Phases of the moon</li> <li>● Eclipses</li> <li>● Seasons</li> <li>● Comets</li> <li>● Aurora Borealis (Northern lights)</li> <li>● Meteoroid Impact</li> </ul> <p><b>Scientific Method</b></p> <ul style="list-style-type: none"> <li>● Introduction to the scientific method</li> <li>● Laboratory report writing (introduce Scientific Laboratory Report Guidelines document)</li> <li>● Laboratory safety</li> </ul> <p><b>Space</b></p> <ul style="list-style-type: none"> <li>● Scale of the Universe</li> <li>● Astronomical unit</li> <li>● Light year</li> <li>● Location of the Earth in the Universe</li> <li>● Conditions conducive to the development of life</li> </ul>	<p><b>General Characteristics of the Earth</b></p> <ul style="list-style-type: none"> <li>● Internal structure of the Earth</li> <li>● Lithosphere</li> <li>● Types of soil</li> <li>● Types of rock (basic minerals)</li> <li>● Relief</li> <li>● Hydrosphere</li> <li>● Water (distribution)</li> <li>● Atmosphere</li> <li>● Atmospheric layers</li> </ul> <p><b>The Earth</b></p> <ul style="list-style-type: none"> <li>● Geological time scale</li> <li>● Major stages in the history of life on Earth</li> <li>● Extinctions</li> <li>● Fossils</li> <li>● Stratigraphic layers</li> </ul>	<p><b>Geological and Geophysical Phenomena</b></p> <ul style="list-style-type: none"> <li>● Tectonic plate</li> <li>● Earthquake</li> <li>● Volcano</li> <li>● Orogenesis</li> <li>● Erosion</li> <li>● Natural energy sources</li> <li>● Winds</li> <li>● Water cycle</li> <li>● Renewable and non-renewable energy source</li> </ul> <p><b>Diversity of Life Forms</b></p> <ul style="list-style-type: none"> <li>● Habitat</li> <li>● Ecological niche</li> <li>● Species</li> <li>● Population</li> <li>● Physical and behavioral adaptation</li> <li>● Evolution</li> <li>● Taxonomy</li> <li>● Genes and chromosomes</li> </ul> <p><b>Life-Sustaining Processes</b></p> <ul style="list-style-type: none"> <li>● Characteristics of living things</li> <li>● Plant and animal cells</li> <li>● Photosynthesis and respiration</li> <li>● Cellular components visible under a microscope</li> <li>● Inputs and outputs (energy, nutrients, waste)</li> </ul>

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