



# Science 9 Course Outline – Mr. Craddock Father Leonard van Tighem School



**Course Main Objectives:** Students will acknowledge that Science is one way of viewing, categorizing and understanding the world around them. Furthermore, students will learn to appreciate, enjoy and integrate science and the environment into their daily lives while mastering the unit concepts to the best of their ability.

**Expectations:** Be respectful and on time, follow class routines, and bring text & all required materials to class.

**Recommended Materials:** Binder with dividers, pens, pencils, calculator, ruler, pencil crayons

## UNIT A – BIOLOGICAL DIVERSITY

Approximately 25 classes (Sept. – Oct.)

### Major Concepts in Unit A:

1. Biological diversity is reflected in the variety of life on Earth.
2. As species reproduce, characteristics are passed from parents to offspring.
3. DNA is the inherited material responsible for variation.
4. Human activity affects biological diversity.



## UNIT B – MATTER AND CHEMICAL CHANGE

Approximately 25 classes (Jan. – Feb.)

### Major Concepts in Unit B:

1. Matter can be described and organized by its physical and chemical properties.
2. An understanding of the nature of matter has developed through observations over time.
3. Compounds form according to a set of rules.
4. Substances undergo a chemical change when they interact to produce different substances.

## UNIT C – ENVIRONMENTAL CHEMISTRY

Approximately 25 classes (Mar. – Apr.)

### Major Concepts in Unit C:

1. The environment is made up of chemicals that can support or harm living things.
2. The quantity of chemicals in the environment can be monitored.
3. Potentially harmful substances are spread and concentrated in the environment in various ways.

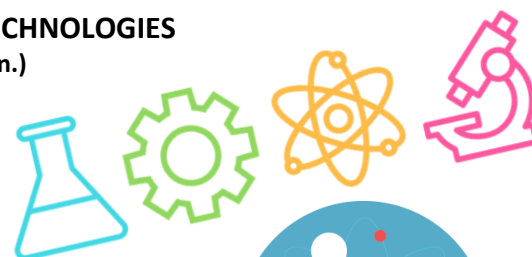


## UNIT D – ELECTRICAL PRINCIPLES AND TECHNOLOGIES

Approximately 25 classes (Apr. – Jun.)

### Major Concepts in Unit D:

1. Electrical energy can be transferred and stored.
2. Technologies can be used to transfer and control energy.
3. Devices and system convert energy with varying efficiencies.
4. The use of electrical energy affects society and the environment.



## UNIT E – SPACE EXPLORATION

Approximately 25 classes (Nov. – Dec.)

### Major Concepts in Unit E:

1. Human understanding of both Earth and space has changed over time.
2. Technological developments are making space exploration possible and offer benefits on Earth.
3. Optical telescopes, radio telescopes, and other technologies advance our understanding of space.
4. Society and the environment are affected by space exploration and the development of space technologies.



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## EVALUATION AND GRADING

The summative work from each reporting period will make up 90% of the total mark. The final exam of the year (PAT) will make up the additional 10%. Formative assessments will include some quizzes, in class assignments and homework assignments but will not be included in the students overall mark.

### COURSE MARKING SCHEME

- Assignments/Projects/Quizzes 50%
- Unit Exams 40%
- Year End Final Exam – PAT 10%

**NOTE:** Students must write a final exam at the end of the year. An alternate exam will be provided for the student to write if they are going to be absent on the day of the PAT. The 90% breakdown of summative work made up by Unit Exams, Assignments, Projects, and Quizzes is subject to change at the teachers' discretion.

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## TUTORIAL

The last period of the day Monday-Thursday is called tutorial where students check in for attendance at their homeroom and are then able to use their time to study or work on any assignments they need to complete. Students may also sign-out from their homeroom with the teacher's permission to go get help from another teacher in any subject area. I highly recommend that students see me for extra help during this time if they are having trouble with any of the Science 9 concepts covered this year.

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## LATE ASSIGNMENTS

Students need to take responsibility for their own education and are expected to be responsible for handing in assignments on time. Handing in assignments on time will help prepare them for summative quizzes and exams. If a student is late with an assignment they will be referred to study hall until it is complete. Students have until the end of each quarter at the latest to get any missing assignments in unless other arrangements have been made. Parents or guardians of any student caught copying or cheating will be contacted immediately.

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