Waterloo Region District School Board
FOREST HEIGHTS COLLEGIATE INSTITUTE

Grade 10 Science – SNC2PI
Course Overview 2016 - 2017

Course Type: Science
Teacher: Mr. White (office rm. 6-32)
Textbook: Science Links 10
****Classroom and online availability****

Grade Level: 10
Department: Science
Room: 6-25

Course Description:

This course enables students to develop a deeper understanding of concepts in biology, chemistry, earth and space science, and physics, and to apply their knowledge of science in real-world situations. Students are given opportunities to develop further practical skills in scientific investigation. Students will plan and conduct investigations into everyday problems and issues related to human cells and body systems; chemical reactions; factors affecting climate change; and the interaction of light and matter.
Prerequisite: Science, Grade 9, Academic or Applied

Big Ideas:

Biology
• All animals are made of specialized cells, tissues, and organs that are organized into systems.
• Although technology and chemicals can be used to improve human health, they can also constitute a health hazard.
Chemistry
• Chemicals react with one another in predictable ways.
• Chemical reactions are a necessary component of chemical products and processes used in the home and workplace.
Earth and Space Science
• Global climate change is affected by both natural and human factors.
• Climate change affects living things and natural systems in a variety of ways.
Physics
• A wide range of technologies utilize the properties of light and colour.
• The behaviour of light depends on the materials with which it interacts.
• Light is a form of energy, produced from a variety of sources, and can be transformed into other useful forms of energy.

Overall Expectations:

Biology: Tissues, organs, and systems
B1. analyse some current technologies or substances that have an impact on human tissues, organs, or systems, and evaluate their effects on human health;
B2. investigate cell division, cell specialization, and the organization of systems in animals, including humans, using various laboratory techniques;
B3. demonstrate an understanding of the hierarchical organization of cells, from tissues, to organs, to systems in animals, including humans
Chemistry: Chemical reactions and their practical applications
c1. analyse how chemical reactions are employed in common products and processes, and assess the safety and environmental hazards associated with them;
c2. investigate, through inquiry, the characteristics of simple chemical reactions;
c3. demonstrate an understanding of simple chemical reactions and the language and ways to represent them
Earth and Space Science: Earth's dynamic climate
d1. analyse effects of human activity on climate change, and effects of climate change on living things and natural systems;
d2. investigate various natural and human factors that have an impact on climate change and global

warming;
d3. demonstrate an understanding of various natural and human factors that contribute to climate change and global warming.

Physics: Light and applications of optics

e1. analyse how properties of light and colour are applied in technology and the impact of these technologies on society;
e2. investigate, through inquiry, properties of light, and predict its behaviour in mirrors and as it passes through different media;
e3. demonstrate an understanding of characteristics and properties of light, particularly with respect to reflection and refraction and the addition and subtraction of colour.

ASSESSMENT AND EVALUATION:

A variety of assessment tasks will be used to evaluate student progress.

- **Late and Missed Assignments** – To achieve success in this course, all essential course components must be demonstrated. Incomplete work is **NOT** an option.
- **Cheating and Plagiarism** – It is important for students to do their own best work. If a student is suspected of cheating or plagiarizing, the teacher in consultation with administration, will determine the next steps and/or consequences.
- **Learning Skills and Work Habits** – The areas of Responsibility, Organization, Independent Work, Collaboration, Initiative, and Self-regulation are important and will be assessed and reflected on the provincial report card.
- **Attendance**– Attendance and punctuality in classes are important parts of learning and an expectation of student behaviour. Lates are to be avoided to benefit from full instructional time and not disrupt other's learning time. When a student is absent, a parent/guardian must call the school's attendance line on the date of absence, or provide a note explaining the absence for the student to submit the following day. Students are responsible for missed work during their absence.

Course Evaluation:

Final Evaluation	30%	Chemistry	15%
Intro to Science	10%	Physics	15%
		Biology	15%
		Weather & Climate	15%

Website: http://dl.dropboxusercontent.com/u/40016123/index.htm

Schoology: www.schoology.com ---

Quizlet: class - Grade 10 Science White
- Grade 10P White

Web Access for E-Book: www.sciencesource.ca ****No Assigned Text but e-text on website as well**

User: FHCIScience910
Password: PupilScience910

By signing this course outline, I acknowledge that I have read and understood the expectations and requirements for successful completion of this course.

_____ _____
Student's Name Date

_____ _____
Parent/Guardian Signature Date