**Course Name: Grade 9, Academic Science, SNC1DI**

**Teacher Name: Mr. Arthur**

**Course Description**

This course enables students to develop their understanding of basic concepts in biology, chemistry, earth and space science, and physics, and to relate science to technology, society, and the environment. Throughout the course, students will develop their skills in the processes of scientific investigation. Students will acquire an understanding of scientific theories and conduct investigations related to sustainable ecosystems; atomic and molecular structures and the properties of elements and compounds; the study of the universe and its properties and components; and the principles of electricity (Ministry of Education, 2008).

**Units of Study**

1. Sustainable Ecosystems (Biology)

2. Atoms, Elements and Compounds (Chemistry)

3. The Study of the Universe (Earth and Space)

4. The Characteristics of Electricity (Physics)

**Critical Elements**

Students will demonstrate scientific investigation skills (initiating and planning, performing and recording, analysing and interpreting, and communicating), as well as identify, research, and describe a variety of careers and scientists related to the fields of science. **[labs and projects]**

BIOLOGY: Students must demonstrate an understanding of the dynamic nature of ecosystems and the necessity for balance and sustainability. In addition, students must be able to identify human activities that affect ecosystems and assess the impact of such activities on the sustainability of ecosystems and the effectiveness of courses of action intended to remedy these impacts. **[test, assignments, project]**

CHEMISTRY: Students must demonstrate an understanding of atomic structure and the organization of the periodic table, as well as, an understanding of the physical and chemical properties of common elements and the changes that matter undergoes. **[labs, assignments, test, project]**

EARTH AND SPACE: Students must demonstrate an understanding of the characteristics and properties of celestial objects and the major scientific theories about their structure, formation, and evolution and assess some of the costs, hazards and benefits of space exploration and the Canadian contributions to space research and technology. **[assignments, test, project]**

PHYSICS: Students must demonstrate an understanding of the principles of static and current electricity and the quantitative relationships between potential difference, current and resistance in simple circuits and issues associated with the production of energy from renewable and non-renewable sources. **[assignments, labs, test]**

Successful completion of **all** critical elements is required to earn the course credit. If a student does not pass a critical element, a **supplementary** assessment item may be given in order for the student to demonstrate proficiency.

**Course Evaluation**

Student work will be evaluated formatively and summatively, using a balance of the Ministry’s four achievement chart categories: knowledge & understanding, thinking & inquiry, application, and communication.

FORMATIVE: designed to give multiple opportunities for students to make improvements to their work: e.g. teacher-student conferences, peer conferencing, homework, exemplars, question and answer sessions, review games / worksheets, quizzes

SUMMATIVE: designed to make judgments on final achievements of performance based on observations, conversations and student performance. e.g. lab reports, assignments, tests, projects and exam.

Throughout the course teachers will gather evidence of student learning of the **Critical Elements** through observations, conversations, and student-produced work.

Seventy percent (70%) of the final mark will come from term work, and thirty percent (30%) will come from final evaluations.

Part One - Term Work: 70%

|  |  |  |  |
| --- | --- | --- | --- |
| **Category**  | **Assessment Style** | **Examples** | **% Of Semester** |
| Knowledge/Understanding | Tests  | knowledge of facts, terms, laws, theories, concepts, principles, application of knowledge and skills | 50% |
| Inquiry/Communication | Labs/Assignments  | scientific inquiry skills, lab skills, use of tools equipment, use of scientific terminology, lab reports, use of information technology | 40% |
| Making Connections | Projects | projects, research, presentations | 10% |
| Total |  |  | 100% |

Part Two - Final Assessment: 30%

|  |  |  |
| --- | --- | --- |
| **Category** | **Assessment Style** | **Percentage** |
| Knowledge/UnderstandingMaking Connections Inquiry/Communication | Written Exam (may have a lab exam component) | 100% |
| Total |  | 100% |

Successful completion of **all** **critical elements** is required to earn the course credit.

**Late and Missed Assignments**

Students at BCI will be responsible and complete all assigned work in a timely manner. This includes homework, process work, readings etc. so that you are prepared for class. Students will also be responsible to hand in assignments and write tests on their respective due dates. Students are expected to discuss alternative arrangements with their teachers if assignments and tests are not submitted due to unforeseen circumstances.

**If you do not submit a major assignment on the due date any combination of the following may occur:**

* Your teacher will meet with you to discuss the reason why the deadline was not met. As a result of this meeting: an extension or an alternative assessment may be given and your parent/guardian may be contacted to discuss next steps.
* You may be referred to PASS or to Student Success to complete the assignment. Your teacher and or Vice Principal will determine if this completion will take place during lunch or during class time.
* Your completed work will be evaluated. Students who do not submit work in a timely manner shall have this reflected in the Learning Skills and Work Habits section on the Provincial Report Card.
* If work is still not submitted on the established date or if you do not follow through with PASS/Student Success you will be referred to your Vice Principal and next steps may include but are not limited to: student referral to in-school intervention support (School Success Team, Special Education LAC, Guidance etc.); a negotiated extension that meets teacher mark reporting deadlines; and/or an alternative opportunity for the student to demonstrate the same critical elements, or an “incomplete” (I) will be entered for this evaluation.
* The use of “I” indicates that work has not been submitted. When determining a final grade the teacher’s use of professional judgement based on interventions and data collected determine whether or not the student has demonstrated the required critical elements at another point in the course.

**Cheating and Plagiarism**

Cheating and plagiarism are serious academic offences. Plagiarism is defined as using the work of someone else as their own. Using the writings, inventions, or ideas of another without proper sourcing is considered plagiarism. To plagiarize is to be dishonest with your teacher, your peers, your ‘sources’ and yourself. The acts of cheating and plagiarism will not be tolerated. Both academic and behavioural consequences should be expected.

**Consequences:**If your teacher suspects that you have plagiarised or cheated, your teacher will inform your Vice Principal and meet with you to determine the nature, intent and extent of the incident and your understanding of the situation.

**If it is determined that you have plagiarised/cheated you may face one or more of the following:**

* Your parents will be notified.
* Within a given timeframe, given the opportunity to redo part or all of the assignment, or complete an alternative assignment.
* A record of your academic infraction will be logged and kept on file until you graduate.
* The incident will be reflected on your report card in the Learning Skills and Work Habits section of the Provincial Report Card.

**In consultation with Administration additional consequences may be determined such as:**

* Serve a detention or an in-school suspension, or a suspension.
* Limit your access to recognitions (e.g., school awards, scholarships).

All consequences will be progressive in nature and take into consideration the number and frequency of incidents and the grade level, maturity and individual circumstances of the student.

For further information please see the BCI website, or WRDSB Assessment, Evaluation, and Reporting Handbook or the Administrative Procedure 1660.

**Learning Skills**

The Learning Skills and Work Habits section of the provincial report card is an integral part of a student’s learning. Students will be assessed in the following areas:

|  |  |  |
| --- | --- | --- |
| * Responsibility
 | * Independent Work
 | * Organization
 |
| * Initiative
 | * Collaboration
 | * Self-Regulation
 |

The following scoring system is used for Learning Skills:

E=Excellent; G=Good; S=Satisfactory; N=Needs Improvement

**Course Specific Information**

RECIPE FOR SUCCESS:

 - ATTEND: everyday, on time and STAY THE WHOLE PERIOD

 - PARTICIPATE: share your good ideas and practice your answers

 - ORGANIZE: Keep notebook neat and up to date.

 - ATTEMPT: try your best and complete all assigned work.

 - ASK when you have questions or think you need extra help.

Classroom Procedures:

1. **All portable electronic** devices (cell phones, iPods etc.) are to be turned off upon entry into the
science classroom and are to be put away out of sight during the class.
2. **Washroom:** one at a time, sign-out with name and time on the board.

For your benefit a website has been set up to help you stay on top of assignments and get caught up
when you are absent. Please use this website as an organizational aid and a way to contact you teacher
outside of class if needed.

The address for the website is: **http://arthurscience.weebly.com**

**Textbook:** ON Science 9 (McGraw-Hill)

Due to a limited number of textbooks, all books will remain in the classroom. If a student requires additional time to complete work from the textbook, they will need to come to class before or after school or during lunch hour.

**Notebook:**

Each student is encouraged to carry a 3-ring loose-leaf binder to allow for handouts. Notebooks are expected to be kept up-to-date and in neat condition.

**Signatures**

Please sign below indicating you have read and understood this course outline, including the requirements for successful completion of this course, and return this sheet to your teacher:

Student Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Guardian Signature: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Teacher’s email: **steven\_arthur@wrdsb.on.ca** phone extension: (519) 885-4620 x 6010