**Bow Valley High School**

**Science 10 Course Outline**

**2018-2019**

***Teacher:***

Mr. Devine

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*403-932-9005*

***Text:***

Science Focus 10

***Course Overview:***

The course content follows the curricular objectives set by Alberta Education. The curriculum covers concepts of biology, chemistry, physics and introduces the differences between them and shows how they fit together. It includes pure science, applied science, and technology.

***Prerequisite:*** Science 9

Successful completion of this course will enable the student to enroll in one or more of the following: Science 20, Chemistry 20, Biology 20, Physics 20. Responsible and mature conduct is essential in this course.

***Homework:***

Students can count on spending an average of 3-5 hours of reading and study time outside of class each week. Students should use the course topics outline to complete the required readings in advance of the teaching related to these topics. It is expected that all homework assigned will be completed and ready to turn in at the beginning of the next class.

***Help Sessions:***

Extra help is available before school or during lunch upon request at mutually agreed upon times.

***Mark Distribution:***

Final marks will be cumulative and calculated as follows:

Assignments, Labs, Quizzes 30%

Unit Tests 40%

Final Exam 30%

**Final Mark 100%**

Unit tests will be composed of multiple choice, numerical response and written response questions. Exam questions will focus on synthesis, analysis and evaluation of material covered in the assigned topics. Written response questions will demand that students apply their knowledge rather than simply restating what they have learned.

**Late Work: All work must be completed by the end of EACH unit.**

***Course Topics:***

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| **Units of Study** |
| **Unit 1: Energy and Matter in Chemical Change**   * Matter and Technology * Naming and Properties * Chemical Change |
| **Unit 2: Energy Flow in Technological Systems**   * Technological Systems * Mechanical Systems * Energy Conservation and Thermodynamics |
| **Unit 3: Cycling of Matter in Living Systems**   * Understanding Cells * Cell Structures and Organelles * Specialized Structures in Plants |
| **Unit 4: Energy Flow in Global Systems**   * Components of Climate * Energy Transfers in the Biosphere * Climate Changes and Impact |