

# MATTHEW HALTON SCHOOL

## Science 7

### Course Outline

Mr. K. Sheen

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### Objectives

The key objectives for teaching grade seven science are to help the student:

1. Develop critical sense of wonder and curiosity about scientific and technological endeavors.
2. Use science and technology to acquire new knowledge and solve problems.
3. Become prepared to critically address science related issues.
4. Establish a foundation in science that creates opportunities for them to pursue progressively higher levels of study. (Program of Studies, AB, Dept. of Learning, 2002)
5. Develop an increased sense of responsibility with respect to the student's education now and in the future.

### Tentative Timeline

(This timeline may change depending on the needs of students)

#### **Topic A: Interactions and Ecosystems (November - December)**

1. Relationships exist between living things and their environment.
2. The flow of energy and the cycling of matter can be traced and interpreted in ecosystems.
3. Changes can be observed and monitored in ecosystems.

#### **Topic B: Plants for Food and Fibre (May - June)**

1. Understanding structures and life processes of plants help us to interpret their needs.
2. Plants play an essential role in the environment and in meeting human needs.
3. Soil is an important resource that human activity can protect or degrade.
4. The way that plants are grown and used, are related to human needs, technology and the environment.

#### **Topic C: Heat and Temperature (January - February)**

1. Human needs have led to technologies for obtaining and controlling heat.
2. Heat affects matters in different ways.
3. Understanding heat and temperature helps explain natural phenomena and technological devices.
4. Technologies that use heat have benefits and costs to society and to the environment.

#### **Topic D: Structure and Forces (March - April)**

1. Structures are found in natural and human-made environments.
2. External and internal forces act on structures.
3. Structural strength and stability depend on the properties of different materials and how they are joined together.
4. Structures are designed, evaluated and improved in order to meet human needs.

#### **Topic E: Planet Earth (September - October)**

1. Earth's surface undergoes gradual and sudden changes.
2. The rock cycle describes how rocks form and change over time.
3. Landforms provide evidence of change.
4. The fossil record provides evidence of Earth's changes over time.

**Review: 1 week in June**

### Required Materials - Every Class

- **Writing Utensil** - Pen and pencil
- **Textbook** - Science Focus 7
- **Notebook** - Binder and notebook paper, note scribbler, graph paper
- **Extras** - Specific material may be required to complete classroom experiments. Students will be reminded to bring these items (ruler, scissors, glue...).

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**Assessment Belief**

The purpose of assessment is to improve student learning. As a teacher I assess student learning to check on mastery and understanding. Assessment influences and changes my instruction and design of curriculum. All assessments contribute to the summative evaluation at the end of the marking period, documenting how well the students have "Met the Standards" in given areas of the class.

My goal is for all students to be able to demonstrate the skills and content knowledge of this course to a level that is within range for what is appropriate for their grade level. By mastery, this means that a student can do the skill or demonstrate understanding of content independently and consistently.

**Evaluation**

Formative Assessment will happen on a daily basis throughout the course.

Summative Assessment:	Unit A	17%
	Unit B	17%
	Unit C	17%
	Unit D	17%
	Unit E	17%
	Mid Term Exam	5%
	Final Exam	10%

**Expectations**

1. If a student is absent for any reason it will be their responsibility to talk to me at an appropriate time to find out what has been missed and how to catch up.
2. Arrangements must be made prior to the absence of a major quiz, exam or project.
3. It is expected that students follow all classroom rules.

**Classroom Rules**

1. Use only school accepted and respectful language during any type of communication.
2. Come prepared to learn.
3. Stay on task and allow others to stay on task.
4. Junk food is not permitted during class. Gum may only be chewed if not noticeable.
5. You may ask to use the washroom and/or get a drink, but remember it is a privilege not a right, so don't abuse it.
6. Respect other's personal space, property and rights

**Out of Class Excursions**

As we work through the Science curriculum this year, we will have opportunities for the class to extend their learning beyond the classroom walls. The area in and around Pincher Creek has many examples and places to explore that can reinforce these concepts, mainly the Pincher Creek itself. As part of our learning, we will be visiting this area on a few occasions during class time. These excursions will be communicated to the students ahead of time, so that they can dress appropriately. If there are any concerns, please let me know.