

# Science 8 Course Outline

Name \_\_\_\_\_

*Panorama Ridge Secondary*

Block \_\_\_\_\_

Ms. Miller

Date \_\_\_\_\_

**Email:** miller\_c@surreyschools.ca

**Classroom Website:** we will have a class **TEAM**

**Room:** B210

JOIN CODE: **sa2258r**

**Materials Required:** The following materials should be brought to class each day.

- Minimum 2 inch binder
- Pencil Crayons
- Lined Paper
- Textbook
- Pencils
- Erasers
- Dividers
- Agenda
- Pens (blue, black and red)
- Highlighter
- Water Bottle

**Science 8 is split into 4 'Big Ideas' where we will develop Inquiry and critical thinking skills within these**

## Content Areas:

### Life Processes are performed at the cellular level (Biology)

In this unit we will answer questions like:

- What is life? What makes something 'alive'?
- What are cells, and how do they work?
- What are 'micro-organisms' and how do they affect me? How can we use them?
- How does my Immune system work?
- How can I help my Immune system and protect myself from disease?



### The behavior of matter can be explained by the Kinetic Molecular Theory and Atomic Theory (Chemistry)

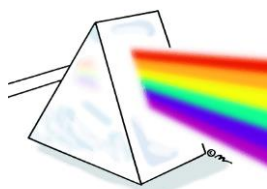
In this unit, we will answer questions like:

- What are 'Atoms' and what are they made of?
- What are 'subatomic particles'?
- How do atoms behave - What is the 'Kinetic Molecular Theory' and the 'Atomic Theory'?
- How do we know they exist?

### Energy can be transferred as both a particle and a wave (Physics)

In this unit, we will answer questions like:

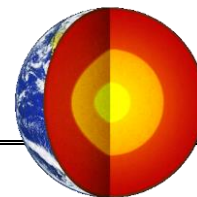
- What are 'waves'?
- What is electromagnetic radiation, and how can we use it?
- How does light work? What is it 'made' of?
- How do mirrors and lenses work?
- How can we detect light?
- How do our eyes work?



### The theory of Plate Tectonics is the unifying theory that explains Earth's geological processes. (Earth Science)

In this unit, we will answer questions like:

- How is our planet put together? How does it change?
- What is an earthquake?
- How do volcanoes work?
- How do Earthquakes and volcanoes affect us here where we live?
- How can we prepare for earthquakes?



**Through the year as we learn the content, we will be developing skills such as:**

**Questioning and Predicting**

- Making observations about your environment
- Ask a question that you would like to find the answer to
- Make a hypothesis (a possible answer to your question) using an 'If...then' statement
- Make predictions about the answer to your question



**Planning and Conducting**

- Come up with a well designed, fair experiment to test your hypothesis
- Identify the different types of variables (dependent and independent)
- Observe, measure, and record data using equipment with accuracy and precision
- Use proper units and be able to convert them when necessary

**Processing and analyzing data and information**

- Be able to represent data in a variety of ways including graphs, tables, keys, models, and digital technologies
- Be able to draw and apply data from different sources including 'First Peoples' perspectives and knowledge.
- Identify patterns and connections in the data from information collected in experiments and from secondary sources
- Draw conclusions and identify relationships (what did your data tell you?)

**Evaluating**

- Reflect on investigation methods:
- Were there any problems with my experiment design?
- Was my data accurate?
- Where there any sources of error?
- What could be done better next time?
- Did I influence the outcome in any way unintentionally?
- Does the outcome of my experiment make sense, or is it totally unexpected?

**Applying and Innovating**

- Work with others to design projects and solve problems
- Apply what you learned to new situations and other problems
- Express new ideas to solve problems

**Communicating**

- Communicate your experiment results and findings using proper language and format (lab reports)

**Assessment & Binders:**

**Assessment/Evaluation:** (Subject to change at the teacher's discretion)

- Assignments and Labs
- Learning Checks (quizzes)
- Chapter and Unit Celebrations (tests)
- Projects
- Final Assessment (in class)

**Binder Organization**

- All sheets labelled with name, date, block and title
- Organized in a chronological order (from earliest to latest)
- Divided into 5 sections (Intro Unit – Unit 4)

## Classroom Expectations and Procedures:

In addition to the school's code of conduct, I have included some specific expectations for behaviour in the classroom to ensure that everyone has an equal opportunity to learn to their full potential. The basic classroom rules and expectations include:

### 1. PARTICIPATE/COMPLETE ASSIGNMENTS

**Effort is required** which means you need to complete assignments and learning tasks. Assignments need to be completed by the beginning of the next class unless told otherwise. If an assignment is already marked and handed back to the class, then you must do an alternative assignment (usually a much harder and longer one) to receive credit. Assignments should be neat and legible, and answered in full sentence answers or it will not be marked.



I will mark work that is late, but it MUST be accompanied by a completed "Late Assignment Form".

### 2. DO YOUR OWN WORK

Although science is a collaborative discipline and learning is a collaborative process (and is encouraged), all assignments/projects/labs need to be your own work. The only exception to this is lab data should be identical to others in your group. Please see the science department policies regarding academic dishonesty and plagiarism.

### 3. ATTENDANCE MATTERS

This course can move at a fast pace, and attendance problems may cause you to experience difficulty with course material. If you miss a class, make certain you obtain notes from a reliable peer OR from the TEAMS site and obtain handouts from the assignment folder upon your return. **IT IS YOUR RESPONSIBILITY** to catch up on missed material. **A parent/guardian must phone and notify the school when you are absent** or your absence will be considered an UNEXCUSED absence.

If you miss a test or quiz due to an unexpected absence, you will be an INCOMPLETE. To be considered for a re-write you must bring a note from your parent/guardian on the day of your return to class. **BE PREPARED TO WRITE THE TEST ON THE DAY OF YOUR RETURN!** If it is not convenient for me, then we will reschedule. If you do not rewrite a test right away, you may be given an alternate test at my discretion.

### 4. ARRIVE TO CLASS ON TIME

Late students miss important information, disturb others and interrupt the teacher. You are late if:



- a) you are not in the class when the bell ring
- b) you are not in your seat when the bell rings
- c) you put your books on your desk, leave the room and are not back in your seat when the bell rings

When you arrive to class, the expectation is that you start working on the "**Bell Activity**" by the time the bell rings.

**Procedure if you are late:** Get your books and materials out **BEFORE** you come into class so you do not make a disturbance. If the door is open, please come in and I will talk to you when it is convenient. If the door is closed, please knock once and I will open it when it is convenient.

**\*\*\*Students who are late will receive an automatic detention. Subsequent lates will result in a phone call home and referral to the office if necessary.**

### **5. BE PREPARED FOR CLASS**

You must bring all required supplies to every class (see above) as well as your completed assignments.

### **6. BE RESPECTFUL OF OTHERS**

It is **absolutely required** that you will be considerate of others and act in a responsible manner. Be respectful and kind to your classmates, both in word and action. This includes but not limited to:

- Being a good listener (peers, teacher, PA announcements)
- Not using vulgar or offensive language
- Keeping hands, feet, objects to yourself

**Please...**

- Do not pack up until I say you may. Remember I dismiss you, NOT the bell.
- Food & drink is permitted as long as you **clean up after yourself and it is not a distraction**. Please make sure all containers get put in the correct recycling bin or garbage or this privilege will be taken away.
- No food or drinks will be allowed in the lab.
- No cell phone use in the classroom unless given permission by the teacher.

**IF YOU CHOOSE TO NOT LIVE UP THESE EXPECTATIONS, THERE ARE CONSEQUENCES.....**

If you are fulfilling these expectations, the following will occur:

1<sup>ST</sup> TIME: = conference with me after school

2<sup>nd</sup> TIME: = time after (~15 minutes) & phone call home

3<sup>rd</sup> TIME: = time after school (~30 minutes) & phone call home/possible referral

\*\*\*any missed time after school will = double the time owed.



Please remember that if you are struggling with anything in the course, I am here to help. I will be available afterschool most days. You can also email me or message me in TEAMS (but keep in mind you may not get an immediate reply) but please don't wait until it's too late before you seek assistance.

*"There is no secret to success. It is the result of preparation, hard work, and learning from failure." - Colin Powell*

Please fill out the following form to confirm that you have read the course outline with your parents. It is important that your parents include their email/contact information. This must be submitted for a homework credit.

I have read and understand the above classroom contract/outline and agree to take responsibility for my own learning and respect all others in the classroom community.

\_\_\_\_\_  
**Student Signature**

\_\_\_\_\_  
**Parent/Guardian Signature**

If you have any questions regarding this semester or your child's progress, please feel free to contact me by phone or email. I look forward to a successful semester.