

Curriculum Newsletter for grades 7 and 8 Science and Technology (Term 1)

In Science and Technology this year, I will be continuing the system started by Mr. Rhys Bennett where the students at John McCrae have a stream-lined curriculum for grades 7 and 8 Science. What this means is that both the grade 7s and the grade 8s will be learning the grade 7 curriculum this year and both will be learning the grade 8 curriculum next year. Grade 7s are still assessed as grade 7s and 8s as 8s. The only difference is when they learn the material.

The streamlining helps when running labs, activities and especially in the wood shop (if and when we are given permission to use the wood shop) so that there is far less setting up and shutting down time for the students and far more time spent on learning. If all of the intermediates are working on the same projects, the room doesn't have to be set up and shut down each period. When there are tests, though the content will be similar, each grade will take a separate test with questions designed for their level. If you have any questions, please do not hesitate to contact me at lmccallum1@ugcloud.ca

SCIENCE		
<u>Curriculum Units</u>	<u>Teaching Strategies</u>	<u>Assessments</u>
<p><u>Heat in the Environment (Sept. - Nov.)</u></p> <ul style="list-style-type: none"> Assess the costs and benefits of technologies that reduce heat loss or heat related impacts on the environment Investigate ways in which heat changes substances, and describe how heat is transferred Demonstrate an understanding of heat as a form of energy that is associated with the movement of particles and is essential to many processes within the Earth's Systems <p><u>LEARNING FOCUS:</u></p> <ul style="list-style-type: none"> The particle theory helps explain how heat energy can be transformed and transferred. Many sources of heat have both positive and negative effects on the environment. 	<p><u>ALL UNITS:</u></p> <ul style="list-style-type: none"> whole class lessons to access prior knowledge and build initial understanding small group discussions to build deeper understanding, review content textbook readings with comprehension questions note-taking definition pages visuals: short Youtube clips, images <p><u>HEAT UNIT activities/labs/projects:</u></p> <ul style="list-style-type: none"> laboratories to learn about heat transfer, conduction, convection and radiation, etc. <p><u>PURE SUBSTANCES and MIXTURES activities/labs/projects:</u></p>	<ul style="list-style-type: none"> observations of student participation in laboratories full lab write-ups, including all sections (hypothesis, materials, procedure, observations/data analysis, discussion questions, conclusions); assessed with rubrics partial lab write-ups, focusing on discussions and conclusions; assessed with checklists graphing activities related to data collection in labs quizzes and tests individual conferences
<p><u>Pure Substances & Mixtures (Nov. - Jan.)</u></p> <ul style="list-style-type: none"> Evaluate the social and environmental impacts of the use and disposal of pure substances and mixtures Investigate the properties and applications of pure substances and mixtures 		

- Demonstrate an understanding of the properties of pure substances and mixtures and describe these characteristics using the particle theory

LEARNING FOCUS:

- **Matter** is classified by **physical characteristics**, while the **particle theory** helps explain these characteristics
- Pure substances and mixtures **impact society/environment**
- Understanding characteristics of matter helps us decide **how we use it**.

- laboratories to learn about pure substances vs. mixtures, dissolving, saturation, etc.