

Curriculum Newsletter for grades 7 and 8 Science and Technology (Term 2)

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>Form & Function (Feb. - April)</u></p> <ul style="list-style-type: none"> Analyze personal, social, economic, and environmental factors that need to be considered in designing and building structures and devices Design and construct a variety of structures, and investigate the relationship between the design and function of the structures in the forces that act on them Demonstrate an understanding of the relationship between structural forms and the forces that act on and within them <p><u>LEARNING FOCUS:</u></p> <ul style="list-style-type: none"> Structures have a purpose The form of a structure depends on its function The interaction between structures and forces is predictable. 	<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>FORM AND FUNCTION UNIT activities/labs/projects:</u></p> <ul style="list-style-type: none"> quick hands-on activities to learn about the nature of forces (apply forces to sponges) design-and-build projects to test internal and external forces (build frames, trusses, bridges, etc.) 	<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>Marks determined by:</u></p> <ul style="list-style-type: none"> -projects/assignments (building activities, ecosystem studies): 40%
<p><u>Interactions in the Environment (April - June)</u></p>		

<ul style="list-style-type: none"> • Assess the impacts of human activities and technologies on the environment, and evaluate ways of controlling these impacts • Investigate interactions within the environment and identify factors that affect the balance between different components of an ecosystem • Demonstrate an understanding of interactions between and among biotic and abiotic elements in the environment <p><u>LEARNING FOCUS</u></p> <ul style="list-style-type: none"> • Biotic and abiotic elements depend on each other to survive • Ecosystems are constantly changing due to nature or human intervention • Humans must be aware of their impact. 	<p><u>INTERACTIONS IN THE ENVIRONMENT UNIT</u></p> <p><u>activities/labs/projects:</u></p> <ul style="list-style-type: none"> • in-situ field studies of local ecosystems (pollinator garden, native tree planting, invasive species sites) • on-line adaptation assignments • food web diagram assignments 	<ul style="list-style-type: none"> -labs (full/partial writeups): 30% -tests/quizzes: 20% -other: 10%
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