

Long Range Plan

Science 6/7 with Mr. Phelps 2011-2012

Course Overview:

The secondary science program is guided by the vision that all students have the opportunity to develop scientific literacy. The goal of scientific literacy is to develop the science-related knowledge, skills and attitudes that students need to solve problems and make decisions, and at the same time help them become lifelong learners— maintaining their sense of wonder about the world around them. Diverse learning experiences within the science program provide students with opportunities to explore, analyze and appreciate the interrelationships among science, technology, society and the environment, and develop understandings that will affect their personal lives, their careers and their futures. Topics of study specific to Science 7 include: Planet Earth, Structures and Forces, Heat and Temperature, Plants for Food and Fiber, and Interactions and Ecosystems.

	September	October	November	December	January
Topic:	Unit 1: Planet Earth	Unit 1: Planet Earth	Unit 2: Structures and Forces	Unit 2: Structures and forces	Unit 3: Heat and Temperature
Resources:	<ul style="list-style-type: none"> - Textbook - Alberta Science Foundation Geologists boot camp crate 	<ul style="list-style-type: none"> - Textbook - Alberta Science Foundation Geologists boot camp crate 	<ul style="list-style-type: none"> - Textbook - Computer Lab - Blackgold website - Edquest.ca - Variety of Web 2.0 smart applications - Video 	<ul style="list-style-type: none"> - Textbook - Computer Lab - Blackgold website - Edquest.ca - Variety of Web 2.0 smart applications - Video 	<ul style="list-style-type: none"> - Textbook - Computer Lab - Various online media - Nelson Science Activities Website - EdQuest Science Resource Website
Instructional Approaches:	<ul style="list-style-type: none"> - Lecture (notes) - Labs - Research - Concept maps - Discussion 	<ul style="list-style-type: none"> - Lecture (notes) - Labs - Research - Concept maps - Discussion 	<ul style="list-style-type: none"> - Lecture (notes) - Labs - Computer research - Debate - Jigsaw - Discussion 	<ul style="list-style-type: none"> - Lecture (notes) - Labs - Computer research - Debate - Jigsaw - Discussion 	<ul style="list-style-type: none"> - Lecture (notes) - Labs - Computer research - Debate - Posters - Group discussion
Special Activities:	<ul style="list-style-type: none"> - Alberta Science Foundation Geologists Bootcamp Science in a crate kit. 	<ul style="list-style-type: none"> - Alberta Science Foundation Geologists Bootcamp Science in a crate kit. 	<ul style="list-style-type: none"> - Bridge design and testing - World Trade Collapse video and investigation - Design the perfect desk 	<ul style="list-style-type: none"> - Bridge design and testing - World Trade Collapse video and investigation - Design the perfect desk 	<ul style="list-style-type: none"> - Thermal conservation box/cylinder - Bunsen burner training and use
Evaluation:	<ul style="list-style-type: none"> - Assignments - Labs - Geologists bootcamp - Topic 1-2 Quiz - Topic 3-4 Quiz - Unit Final 	<ul style="list-style-type: none"> - Assignments - Labs - Geologists bootcamp - Topic 1-2 Quiz - Topic 3-4 Quiz - Unit Final 	<ul style="list-style-type: none"> - Assignments - Labs -Unit Project: Bridge design - Topic 1-2 Quiz - Topic 3-4 Quiz - Unit Final 	<ul style="list-style-type: none"> - Assignments - Labs -Unit Project: Bridge design - Topic 1-2 Quiz - Topic 3-4 Quiz - Unit Final 	<ul style="list-style-type: none"> - Assignments - Labs - Unit Project: Thermos - Topic 1-3 Quiz - Topic 4 Quiz - Unit Final

	February	March	April	May	June
Topic:	Unit 3: Heat and Temperature	Unit 4: Plants for Food and Fiber	Unit 4: Plants for Food and Fiber	Unit 5: Interactions and Ecosystems	Unit 5: Interactions and Ecosystems and Year end review
Resources:	<ul style="list-style-type: none"> - Textbook - Computer Lab - Various online media - Nelson Science Activities Website - EdQuest Science Resource Website 	<ul style="list-style-type: none"> - Textbook - Computer Lab - Smart utilities - Web 2.0 applications - EdQuest Science resource website - National Geographic website 	<ul style="list-style-type: none"> - Textbook - Computer Lab - Smart utilities - Web 2.0 applications - EdQuest Science resource website - National Geographic website 	<ul style="list-style-type: none"> - Textbook - Computer Lab - Smart utilities - Web 2.0 applications - EdQuest Science resource website 	<ul style="list-style-type: none"> - Textbook - Computer Lab - Smart utilities - Web 2.0 applications - EdQuest Science resource website - ADLC website
Instructional Approaches:	<ul style="list-style-type: none"> - Lecture (notes) - Labs - Computer research - Debate - Posters - Group discussion 	<ul style="list-style-type: none"> - Lecture (notes) - Labs - Computer research - Debate - Discussion 	<ul style="list-style-type: none"> - Lecture (notes) - Labs - Computer research - Debate - Discussion 	<ul style="list-style-type: none"> - Lecture (notes) - Labs - Computer research - Discussion 	<ul style="list-style-type: none"> - Lecture (notes) - Labs - Computer research - Discussion - small work groups for course review
Special Activities:	<ul style="list-style-type: none"> - Thermal conservation box/cylinder - Bunsen burner training and use 	<ul style="list-style-type: none"> - Genetically modified food research and debate - Hydroponic plant growth performance task (dependent upon funding) 	<ul style="list-style-type: none"> - Genetically modified food research and debate - Hydroponic plant growth performance task (dependent upon funding) 	<ul style="list-style-type: none"> - Schoolyard ecosystem field study 	<ul style="list-style-type: none"> - Schoolyard ecosystem field study - Course review
Evaluation:	<ul style="list-style-type: none"> - Assignments - Labs - Unit Project: Thermos - Topic 1-3 Quiz - Topic 4 Quiz - Unit Final 	<ul style="list-style-type: none"> - Assignments - Labs - GM research - Hydroponic performance task - Topic 1, 2, 3, and 4 Quiz - Unit Final 	<ul style="list-style-type: none"> - Assignments - Labs - GM research - Hydroponic performance task - Topic 1, 2, 3, and 4 Quiz - Unit Final 	<ul style="list-style-type: none"> - Assignments - Labs - Field study - Topic 1, 2, 3, 4 Quiz - Unit final 	<ul style="list-style-type: none"> - Assignments - Labs - Field study - Topic 1, 2, 3, 4 Quiz - Unit final - Course Final Exam

Evaluation:

All assignments, quizzes, labs and unit tests will be recorded and a cumulative mark will be calculated at the end of the unit. Assessments will vary from oral presentations, class participation, completion of work and general attentiveness. The final exam is worth 25%. Missing assignments will be recorded as a zero unless arrangements have been made with Mr. Phelps to complete the work.

Category	<u>Unit 1</u>	<u>Unit 2</u>	<u>Unit 3</u>	<u>Unit 4</u>	<u>Unit 5</u>	Final
	Planet Earth	Structures and Forces	Heat and Temperature	Plants for Food and Fiber	Interactions and Ecosystems	
Assignments, Labs & Homework	40%	40%	40%	40%	40%	-
Quizzes	30%	30%	30%	30%	30%	-
Unit Tests	30%	30%	30%	30%	30%	-
Unit Total Marks	100%	100%	100%	100%	100%	-
Final Mark	15%	15%	15%	15%	15%	25%