

City Honors
Grade 5 MYP Science
Course Syllabus
2009/2010 School Year

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Course Description and Objectives:

The City Honors fifth grade science program is designed to intrigue and involve students with science as an active process, a field study, and as a philosophy. Its purpose is to provide a solid foundation for future successes in science. The focus is to extend the NYS Standards, the Buffalo Public School Curriculum and include internationalism throughout the year. The aim is to challenge students to think globally and to become self-directed learners. At the end of fifth grade students should be able to use the language of science to communicate understanding, apply scientific concepts, skills, and processes to everyday experiences, develop respect for the environment and its inhabitants, and develop respect for scientific historical contributions.

New York State Standards:

Standard 1: Scientific Inquiry

- *formulate questions
- *design and conduct an experiment to test a hypothesis
- *carry out research proposals, record observations and measurements to help assess the explanation

Standard 2: Physical Setting

- *explain daily, monthly, and seasonal changes on earth
- *explain how the hydrosphere, and lithosphere interact, evolve and change
- *describe weather and climate changes
- *describe the sources and identify the transformation of energy observed in everyday life

Standard 3: The Living Environment

- *explain the functioning of the major human organ systems and their interactions
- *describe the factors responsible for competition within species and the significance of that competition
- *describe the flow of energy through food chains and food webs
- *describe how living things depend upon the living and nonliving environment for their survival
- *describe the effects of environmental changes on humans and other populations

Units/ Guiding Questions/ Timeline

Units of Study	Guided Questions	MYP Areas of Interaction	Timeline/connections
1.Competition within species in all environments 2.Dynamic Equilibrium	1.How do adaptive characteristics effect the survival of a species? 2.How is dynamic equilibrium achieved on earth?	Approaches to learning critical thinking, scientific method Environment... dangers, effects of nature	September/October *extinct animal project
1.Interdependence of living things and the environment. 2.Impact on environment for survival and environmental changes.	1.In what ways are organisms inter-dependent? 2.What are our responsibilities to the local, national, and global environments?	Environment effects of nature, conservation, solutions. Homo Faber Influences on the scientist	November/December/January *Research and create a PowerPoint presentation on an international ecosystem in distress
1.Weather 2.Weathering and erosion 3.Astronomy	1.How do climate and weather changes in the U.S. effect changes globally? 2.How has the study of astronomy benefited mankind? 3.Could I be the next scientist to discover a globally important breakthrough?	Environment effects of nature Homo Faber life of a scientist impact of a scientist on society	February/March/April *ologist project
1.Functions of human systems. 2.Types of energy 3.Alternative energy sources	1.What are our responsibilities to the World Health Organization? 2.Have we discovered all the forms of energy?	Health and Social Education Technology, use of and demand for energy community service, heart healthy	May/June *Heart Healthy Fundraiser (project with 6 th grade and the physical education department) *electricity project

Texts/Materials Used (see supply list)

Scott Forseman, Science Kits on loan from the Buffalo Museum of Science, and possibly Current Science Magazine.

Teaching and Assessment:

A variety of teaching methods will be used: including, but not limited to, hands on activities, discussions, publications, internet research, creative projects, note-taking, scientific videos, guest speakers, student presentations, and laboratory presentations. All students will be required to complete one project per semester. Students will be given specific guidelines at the appropriate time. Late projects will be penalized (5 percentage points per day) and will not be accepted if more than three days late. Extensions are not given. Each project will be graded with a specific rubric.

Grading Practices and Procedures:

Grades will be based on student performance on a variety of assessments. Students will be tested during and at the end of each unit. During each unit students will complete various class and homework assignments. Students will complete labs and follow each lab with a lab write-up. Students are expected to keep all assignments, vocabulary words, homework, notes, and lab write-ups in their science notebook. All assignments are to be written legibly using grade appropriate language and usage.

Written Work Requirements:

All labs require a lab write up. Research projects require a written portion that will be explained further at the time of the project. Tests will contain short answer and essays. All assignments are to be written legibly using grade appropriate language and usage.

Grades:

A 100-96	A- 95-94	
B+ 93-92	B 91-90	B- 89-88
C+ 87-86	C 85-83	C- 82-80
D 79-75		
F 74-0		

Grade Breakdown: grades are weighted as follows:

50% test and quizzes

40% labs, class activities, homework, and participation

10% projects

Method of Communication: Please feel free to call me during the school day to leave a message, write a note, or e-mail at kswitalski@buffaloschools.org and I will get back to you as soon as possible.

Extra Help Opportunities: If it becomes necessary for any extra academic intervention I will make special accommodations before school begins in the morning.

