

Century Middle School  
Course Syllabus  
2009-2010

Course Title: MYP Science 8	Instructor Name: Mrs. Marsha Smith
	Contact Information: marsha.a.smith@adams12.org
	720-972-3267
	Website: <a href="http://www.schoolnotes.com/80241/msmith.html">http://www.schoolnotes.com/80241/msmith.html</a>
	Mrs. Smith is available for extra help after school in room F107 by appointment.
<p>Course Description: Year 3 of the MYP Science</p> <p>The science curriculum for the 8<sup>th</sup> grade focuses on learning science skills through the study of the physical sciences. Your student will be learning various topics related to chemistry and physics. The course will also center around developing the qualities and characteristics of the IB Learner Profile. Instruction will be based around the five IB areas of interaction.</p>	

Essential Learnings	Topics of Study
Experimental Design	Observations, question, hypothesis, and design
Scientific Testing	Conduct investigation, collect and organize data
Analysis and Conclusions	Analysis, trends and conclusions
Structures and Properties of Matter	Distinguish between states of matter
Forces and Motion	Acceleration, velocity, speed
Sources and Properties of Energy	Forms of energy and transformation and conservation of energy

**Areas of Interaction:**

- *Approaches to learning* – MYP sciences contributes to the development of thinking skills by providing students with a curriculum that offers challenging opportunities that enable them to questions, investigate and evaluate data and information presented to them.
- *Community and service* – The MYP sciences course helps students reflect upon the role of science in society and the responsibility of scientists and scientific developments in a global setting.
- *Human ingenuity* – The study of MYP sciences provides many opportunities to incorporate Human ingenuity into the curriculum. Scientific and technological developments and innovations can be assessed from a social, economic, political, environmental, cultural and ethical perspective.
- *Environment* – MYP sciences will provide opportunities for students to address local and global environmental issues and recognize the interdependence of political, economic and social factors. MYP sciences help students become aware of their rights and responsibilities as world citizens and prepare them to make responsible choices about environmental issues locally and globally.
- *Health and social education* – MYP sciences contribute to developing knowledge and understanding of health-related issues that can threaten or enhance health.

**MYP Aims:**

The aims of teaching and learning mathematics are to encourage and enable students to:

- Develop inquiring minds and curiosity about science and the natural world
- Acquire knowledge, conceptual understanding and skills to solve problems and make informed decisions in scientific and other contexts
- Develop skills of scientific inquiry to design and carry out scientific investigations and evaluate scientific evidence to draw conclusions
- Communicate scientific ideas, arguments and practical experiences accurately in a variety of ways
- Think analytically, critically and creatively to solve problems, judge arguments and make decisions in scientific and other contexts
- Appreciate the benefits and limitations of science and its application in technological developments
- Understand the international nature of science and the interdependence of science, technology, and society, including the benefits, limitations and implications imposed by social, economic, political, environmental, cultural and ethical factors
- Demonstrate attitudes and develop values of honesty and respect for themselves, others, and their shared environment.

**MYP Objectives:****A – One World**

- Enabling students to understand the interdependence between science and society
- Students should be aware of the global dimension of science, as a universal activity with consequences for our lives and subject to social, economic, political, environmental, cultural and ethical factors.

**B – Communication in Science**

- Enabling students to develop their communication skills in science
- Students should be able to understand scientific information, such as data, ideas, arguments and investigations, and communicate it using appropriate scientific language in a variety of communication modes and formats as appropriate.

**C – Knowledge and Understanding of Science**

- Enabling students to understand the main ideas and concepts of science and to apply them to solve problems in familiar and unfamiliar situations.
- Students are expected to develop critical and reflective thinking and judge the credibility of scientific information when this is presented to them.

**D – Scientific Inquiry**

- Enabling students to develop scientific inquiry skills to design and carry out scientific investigations

**E – Processing Data**

- Enabling students to record, organize and process data.
- Students should be able to collect and transform data by numerical calculations into diagrammatic form.
- Students should be able to analyze and interpret data and explain appropriate conclusions.

**F – Attitudes of Science**

- This objective goes beyond science and refers to encouraging attitudes and dispositions that will contribute to students' development as caring and responsible individuals and members of society.
- It includes notions of safety and responsibility when working in science as well as respect for and collaboration with others and their shared environment.

**MYP Grading Criteria:**

Most large assignments will be graded against a rubric. Students will be given rubrics prior to the start of the assignments so that they are familiar with what is expected, what objectives and standards they are expected to meet, and how they can achieve advanced status. MYP students must be assessed on the defined MYP assessment criteria. These criteria are incorporated into the rubrics for various assignments and correspond to the interim objectives listed in this syllabus.

**Grading Procedures:**

- Assessments and grading are applied consistently to students of similarly demonstrated ability. Assessments are based solely on demonstrated progress and achievement of reasonable and clear standards.

Grading Scale	
A	90-100
B	80-89
C	70-79
D	60-69
F	59 and below

Grade Percentages/Weights	
Lab Experiments	40
Assessments (including but not limited to Quizzes, Reflections, Tests, Projects)	40
Classwork and Homework	20

**Methods of Assessment:**

Formative Assessment Tasks	Summative Assessment Tasks
<ul style="list-style-type: none"> <li>▪ Labs</li> <li>▪ Daily homework assignments</li> <li>▪ Exit Slips</li> <li>▪ Creating pictures, diagrams or cartoons to illustrate a particular concept or process</li> </ul>	<ul style="list-style-type: none"> <li>▪ Making a presentation using visual aids</li> <li>▪ Making a poster or wall chart</li> <li>▪ Unit projects</li> <li>▪ Quizzes</li> <li>▪ Tests</li> </ul>

**Student Expectations:**

- Students are expected to arrive on time to class prepared to learn. I expect students to have their notebook (with both loose leaf and graph paper), calculator, and writing utensil in class each day. They should be prepared with both a pencil and a pen.
- Hands on experiences are the best way to learn science, as well as the most engaging for the students. For this reason I have very clear behavior expectations for students in my classes. This is for your child's safety and the safety of the other students. Later this week your child will be bringing home a safety contract. Please look over this contract carefully before signing. Any students who cannot conduct themselves in an appropriate manner will not be participating in lab experiments and will receive alternative learning opportunities.
- If a student is tardy to class they will be expected to complete a discipline slip as they enter the classroom. Once a student has accumulated three discipline slips they will receive a citizenship notice and an after school detention. Students who receive after school detention will receive a minimum of 24 hours notice to schedule rides home.
- Absent students are responsible for making up all missed class work and homework assignments. In addition to checking the agenda, students can check my website <http://www.schoolnotes.com/80241/msmith.html>, which is updated on a daily basis. District policy will be followed in regards to absences and make up work.
- Group grade policy: If students are allowed to choose their group or partner, each person in the group will receive the same grade for the assignment/assessment.
- Academic honesty policy: All students are expected to demonstrate academic honesty in all classes at all times. Academic honesty is performing and producing your own work on your own knowledge, talent and efforts. Please review the CMS academic policy in the student agenda.