

Integrated Science II Syllabus
Eau Gallie High School
SY 2007 - 2008

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Summary: As the name implies, this course is an integrated approach to earth-space science, biology, chemistry, ecology, genetics, math and physics. This science course is a hands-on class. We do many labs which involve precision and accuracy. It is extremely important you pay attention to all details. You will conduct research using scientific methods not limited to graphing, charting, and calculating weight and mass differences. You, as future scientists, will also be working on NASA projects, compiling data for submission in group projects, and looking for ways to make our community a better place through scientific reasoning and logic.

Text: Prentice Hall: **Biology** (2006) Kenneth Miller and Joseph Levine; Prentice Hall: **Physical Science: Concepts in Action with Earth and Space Science** (2006). Please note, Integrated I and Integrated II use the same text books over a two year period but cover different material from those texts.

Labs: Due to the large amount of time required for set-up, it is **essential** that you are always present on lab days. Follow lab procedures and safety guidelines at all times. Horseplay is **never** permitted and will be dealt with expeditiously. Lab reports are a requirement of this class. Everyone is expected to keep good personal records of findings in the lab and relay that information in a lab report. Typed lab reports may be submitted via email to me, however, make sure you print a hard copy just in case of transmission errors.

Testing: **Tests** are given as an assessment of student knowledge in Integrated Science. The format of tests usually consist of 50 multiple choice questions and occasionally an essay question to determine depth of knowledge. **Quizzes** are given at random to assess science comprehension. The majority of tests and quizzes are taken in class, although there will be opportunities to take online versions. **Exams** are comprehensive and given at the end of first and second semester (normally 150 multiple choice questions).

First Semester

Chapter	Topic	Sections
Biology Component		
	Science Skills	All
5	Populations	5.1 thru 5.3
6	Humans in the Biosphere	All
8	Photosynthesis	All
9	Cellular Respiration	All
11	Introduction to Genetics	11.2 thru 11.4
12	DNA and RNA	12.1 thru 12.4
14	The Human Genome	14.1 and 14.2
16	Evolution of Populations	All

Earth and Space Component

22	Earth's Interior	22.4 thru 22.6
23	Earth's Surface	23.4 thru 23.6
24	Weather & Climate	24.4 thru 24.7
26	Exploring the Universe	All

Second Semester

Physics Component

12	Forces and Motion	12.2 and 12.4
14	Work, Power, and Machines	14.1 - 14.4
16	Thermal Energy and Heat	16.1 - 16.3
18	The Electromagnetic Spectrum & Light	18.1 - 18.4
20	Electricity	20.2 and 20.3 (20.4)

Chemistry Component

3	States of Matter	3.2 - 3.3
4	Atomic Structure	4.3
5	The Periodic Table	5.2 and 5.3
6	Chemical Bonds	6.3 and 6.4
7	Chemical Reactions	7.1 thru 7.4
8	Solutions, Acids & Bases	8.2 and 8.4

* Time frame is an approximation. Revisions may be made do to time constraints and fluctuations.