

## INTEGRATED PHYSICAL SCIENCE A Course Requirements

**Length:** 1 Trimester: 12 exciting weeks !  
**Value:** .5 Credits and valuable life experience !

**Instructor:** Zenisek, aka: mr. z  
**Home, Sweet Home:** 8-C

**Course Description:** This is the first of a two-trimester course designed to develop students' *scientific literacy* - the ability to critically read, write and speak on science content and processes. Concurrently students will gain a solid foundation in scientific thinking, methods and content. This is a hands-on course with labs and project activities. Integrated Physical Science A will focus on the structure, function and history of the Universe and Earth system.

**Grading:** This is a class about LEARNING following the State Science Content Standards and the Common Core Standards for reading, writing and speaking. 100% of the grade will be based on demonstrating your learning of the Core Learning Targets (CLTs) on a combination of proficiency-based assessments and student projects. **A student MUST demonstrate proficiency in ALL covered CLTs in order to pass the class. Students must complete required prerequisites before taking CLT exams.** Each CLT will be evaluated on a 5-point scale: 0=no evidence, 2=needs improvement, 3=meets proficiency standards, 3.5 advanced application of content, 4=exceeds standards. Reported grades will be an average of proficiency scores as follows:

A = 4s in 90% of CLTs	<b>Don't Test Well? Don't Panic!</b> We will work <u>together</u> to develop your skills -
B = Average 3.5 in CLTs	
<b>C = 3s in most CLTs</b>	
F = 0 or 2 in one or more CLTs	
	<ul style="list-style-type: none"> <li>• in developing your reading, writing and speaking skills</li> <li>• in directing your own learning</li> <li>• in how to do well on different kinds of assessments</li> <li>• in understanding the science, and in developing meaningful projects</li> </ul>

**Homework:** You can expect weekly homework assignments to support your continued success in class.

**Textbook:** Glencoe. (2006). Physical Science with Earth Science. Books **MUST** be covered.

**Success:** Being successful is a choice you make. No one has ever failed this class unless they chose to by not engaging themselves in the LEARNING. You can be successful by: on-time daily attendance, a positive attitude, and engaging actively in your own LEARNING.

**Supplies: Required:** 1.5" binder with paper and dividers, a single-subject spiral notebook, writing tools EVERY DAY.

**Daley Procedure:**

- 1) Be in your assigned seat with your notebook open at the tardy bell.
- 2) Review the Content Objective and Language Objective for the day.
- 3) In your notebook: Date and do the WUP (Warm-Up) while attendance is taken.

**Class Expectations** (these are mine: we'll develop additional agreements as necessary):

1. **Learn and Follow** classroom safety guidelines at all times.
2. Practice environmental stewardship by reducing, reusing and recycling.
3. BE A SCIENTIST: Question everything!

**Tardies:** Don't Be! First three = problem solving time with me, thereafter: see the Student Handbook.

**Late Work/Absences:** Daily on-time attendance is vital to your academic success. It is your responsibility to find out what you missed during the time you were gone. Missed notes and handouts will be available through your lab group.

**Student Projects:** 1) Students are also required to submit a two-page, polished, type-written report with references on a science topic of personal interest following guidelines given in class.

2) Students are required to submit an Inquiry Lab or Engineering Design Project write-up each trimester as one of the major assessments used to demonstrate their learning. Students will work with a lab group to design and carry out an experiment or design project about a topic being covered in the course or one of personal interest. Each student will then submit their own type-written, polished write-up of the project following guidelines given in class. This project will be scored using State Scoring Guides.

**Extra-Credit:** There is no place for extra-credit since this is a class based on demonstrating LEARNING, not collecting points. However, those interested in demonstrating advanced application of the CLTs (3.5) or exceeding standards (4) may submit personal projects after consulting with me.

**Resources** to support learning: **WIKI:** <http://mrzatzmhs.wikispaces.com>  
**GOOGLE DOCS:** <https://docs.google.com> (*Students will need an email account.*)

**HELP!: Helping you succeed is what I am here for!** So let me know whenever and as soon as you need any help. Homeroom, lunch and after school I'll be available to provide extra assistance to students struggling to master the content and/or who need to make up or retake key assessments. Otherwise, contact me at:

**PHONE:** 503.829.2355 ext5094

**EMAIL:** [zenisekj@molallariv.k12.or.us](mailto:zenisekj@molallariv.k12.or.us)

Trimester Schedule (subject to change as necessary)							
Week	CLT: Readings-Chpt.Sect	Mon	Tues	Wed	Thur	Fri	>Check In Quizzes
Wk 1:	A: Intro: C-1.1-3 (ongoing)	---	---	9/4	9/5	>9/6	Lab: M and V
Wk 2:	A.1: C-10.1-2, C-15.1-2	9/9	9/10*	9/11	9/12	>9/13	Lab: Pendulums
Wk 3:	A.1: C-26.1-4;	9/16	9/17*	9/18	•9/19•	9/20	Lab: Waves
Wk 4:	A.2: C-8.1-3	9/23	9/24*	9/25	9/26	>9/27	Lab: Divers
Wk 5:	A.2: C-7.1-3	9/30	10/1*	10/2	10/3	>10/4	Lab: Densor Sensor
Wk 6:	[DUE: Science Report]	[10/7]	10/8*	10/9	•10/10•	---	• 3, 6, 9, 12 Wk Exams •
Wk 7:	A.3: C-12.1-3 (cont Wk 9)	10/14	10/15*	10/16	10/17-Conf	10/18-Conf	Lab: Density Earth Mtrls
Wk 8:	[Lab: Inquiry/Eng Lab]	[10/21]	[10/22]	[10/23]	[10/24]	[10/25]	[Lab: Inquiry/Eng Lab]
Wk 9:	[DUE: Inquiry/Eng Lab]	10/28	10/29*	10/30	[10/31]	11/1	Lab: Convection
W 10:	A.4: C-20.1-4	11/4	11/5*	11/6	>11/7	---	Lab: LOVE Rocks
W 11:	A.4: C-21.1,2,4;(C-25.1-2 sel.)	---	11/12*	11/13	11/14	>11/15	Lab: Half Life
W 12:	•Pre-Final Exam•	11/18	11/19	•11/20•	11/21	•11/22•	Tri 1 Finals
W 13:	• IPS.A Finals •	•11/25•	•11/26•	---	---	---	

### Notebook (NB) Set Up

Book #
Your Name
Int Phys Science A
Instructor:
Mr. Zenisek
Lab Rules
1
2
3
4
5
+ Unwritten lab rule

First page centered: **Your Full Name**  
**"Integrated Physical Science A"**  
**"Instructor: Mr. Zenisek"**

WUPs	FOODs
9/4 WarmUp	9/4 Notes

- Second page will begin the "LABS" section
- Middle of NB: fold down page to begin "FOODs & WUPs"
- Put **WUPs** on the left page and **FOODs** on right
- >>>**date** each entry >>>**start a new page** for each major topic
- We will use the *Cornell Note-taking System* on the FOOD pages.
- **GYROs** (Journals) will begin on the last page of the notebook and proceed inward

IPS.A Topics and Key Vocabulary			
A: Intro: Systems and Scientific Methods	A.1: Origins	A.3: Geosphere	A.4: Geologic Time
*matter, energy, force	Big Bang	*lithosphere	*rock cycle
Systems: subsystems, ..	electromagnetic waves	*asthenosphere	*igneous (intrusive/extrusive)
...structure, function,	wavelength	mesosphere	*sedimentary
...history, interaction	frequency (Hz), amplitude,	*crust, mantle,	*metamorphic
Earth System: atmosphere, hydrosphere, geosphere	*Doppler Effect (red/blue shift)	*core: liquid outer core, solid inner core	weathering, erosion, deposition, cementation
	galaxy, star system	•seismic waves (P&S)	relative dating
	*nebular hypothesis	epicenter, focus	uniformitarianism
variables, values, and relationships:	*accretion		unconformities
-direct relationship (positive correlation)	*gravitational force / orbit	*plate tectonics	*superposition
-inverse relationship (negative correlation)	<b>A.2: Solar System</b>	MOR: mid-ocean ridge RV: rift valley	absolute dating radioactive decay, half-life
*variables: independent, dependent & constant	*inner, rocky planets: mercury, venus, earth, mars	continental drift seafloor spreading	<b>A.5: Density</b>
*controlled experiment	*outer, gas giants: jupiter, saturn, uranus, neptune	*divergent boundary: <i>constructive boundary</i>	*Density = mass/volume
	asteroid, asteroid belt	convection	water displacement
	meteor, meteoroid, meteorite	*convergent boundary: <i>destructive boundary</i>	buoyant force
	comet	*subduction	equilibrium
	extinction events	*transform boundary	

**\*NOTE:** Students must master key words with an asterisk to meet proficiency standards.

Students are also expected to spell these words correctly. Words may be added or dropped as necessary during the course.