

2012 Final Exam Study Guide Integrated Science 2 - Lovelady Redwood High School

*On the day of the exam you use a single-sided, hand-written,
8.5 x 11 sheet of notes.*

■ Origins Unit

1. **Lecture Notes: “Origin and Formation of the Universe”**
 - note taking sheet
2. **Video: “The Milky Way”**
 - video notes
3. **“Development of the Universe”**
 - know the time line
 - conclusion questions: #'s 2 & 3
4. **Geologic and Biologic Scaled Time Line**
 - know the procedures – be able to create a scaled time line given the type of data found in this activity
5. **Video: “Spaceship Earth”**
 - know questions #: 4, 6, 9, & 11
6. **Lecture Notes: “The Fossil Record – Fossil Formation and Dating”**
 - Fossil Formation
 - Time Line Evidence
 - Measuring Fossil Age
 - Radioactive Dating
 - Radiocarbon Dating
7. **Radioactive Decay Simulation**
 - know the answer to each of the three focus questions
 - analysis and conclusion numbers 4, 5, 6
8. **Video: “How Life Began”**
 - know the answers to #'s 8, 9, 12, and 23

**FINAL BINDER CHECK
WEDNESDAY MAY 30**
*(if you want to take your binder
apart for study purposes, you will
not need to put the binder back
together after this binder check)*

■ Disease Unit

1. **Exploring The Cell Reading Worksheet**
 - be able to recognize the difference between a plant and animal cell
 - what are the major differences between prokaryotes and eukaryotes
 - *additional resource: “Comparing Cells Lab” (there are no questions on the exam taken directly from this lab)*
2. **Lecture Notes: “DNA Structure and Relationship to Proteins”**
 - nucleic acids, structure of DNA, DNA’s relationship to proteins
3. **Quiz : DNA to Protein**
 - all questions
4. **Cell Division Reading Worksheet**
 - pay particular attention to numbers 4 and 5 (the parts of the cell cycle are critical)
 - be able to define, describe, and recognize each of the steps of mitosis
5. **Lecture Notes: Meiosis**
 - haploid v. diploid, phases of meiosis (identified as Meiosis I or II), crossing over
 - similarities and differences between the formation of male and female gametes
6. **Meiosis Handout**
 - crossing over
 - spermatogenesis and Oogenesis
7. **Quiz: Meiosis**
 - all questions
8. **Mendelian Genetics Reading Notes [pgs. 755-761 in your textbook]**
 - know the definitions on all bold terms
 - be able to recognize, explain, and label, the drawings of figures 3,4,5, and 7
9. **Worksheet: Mendelian Genetics and Punnett Squares**
 - be able to complete each of the problems (including the example problems)
10. **Lecture Notes: Genetic and Chromosomal Disorders – an overview**
 - Overview of DNA and Chromosomal based disorders, including non-disjunction
11. **Lecture Notes: Human Chromosomal Disorders – Resulting from variation in chromosomal number**
 - be able to describe the symptoms and causes of the five disorders presented

The entire exam is multiple-choice questions.

Study Tips:

1. Make sure you have all the items listed in your binder – in order.
2. All handouts are available on-line.
3. Go through the list many days before your exam date, identify the items that you think are the hardest
 - start your studying with these items
4. Study the items you think are easy, last.
5. Do whatever it takes to make your last-minute studying light and low-stress.

I sincerely wish you the best on this exam.