**Biology Lesson Plans Quarter 1 2013-2014**

**Date Lesson and Activities State Core Journal writing**

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| **8/26**  **8/27** | **1. Disclosures**  **2. Discuss observations vs. interpretations**  **3. Group activity: observations and interpretations about a living thing and their group members** | **The Nature of Science-ILO’s** |  |
| **8/28**  **8/29** | **1. Pay lab fee as a class**  **2. Notes: What is Science? Safety**  **3. Handout: Lab safety**  **4. Safety contract** | **The Nature of Science-ILO’s** | **Journal 1: snowglobe**  **What is science?** |
| **8/30**  **9/3** | **1. Collect Safety contract, disclosures**  **2. Assign books**  **3. Biology quarterly pre test**  **4. Handout: safety rules (from book appendix)** | **The Nature of Science-ILO’s** |  |
| **9/4**  **9/5** | **1. Pre-test on tools**  **2. Notes: tools used in science**  **3. Handout: tools** | **The Nature of Science-ILO’s** | **Journal 2: sorting diagram**  **tools** |
| **9/6**  **9/9** | **1. Notes: metrics**  **2. Lab: metric measuring**  **3. Handout: metric practice** | **The Nature of Science-ILO’s** | **Journal 3: persuasive paragraph**  **Why the U.S. should be metric** |
| **9/10**  **9/11** | **1. Notes: Characteristics of life**  **2. Handout: review of graphing**  **3. Handout: graphing practice** | **The Nature of Science-ILO’s** |  |
| **9/12**  **9/13** | **1. Review**  **2. Test** |  |  |
| **9/16**  **9/17** | **1. Notes: levels of ecology**  **2. Introduce Desert Ecology project**  **3. Movie: Deserts** | **Std 1-Obj 1** | **Journal 4: Alphabet graffiti**  **Deserts** |
| **9/18**  **9/19** | **1. Lab: Energy needs (skittles)**  **2. Notes: food chains, food webs**  **3. Handout: symbiosis** | **Std 1-Obj 1** | **Journal 5: Bull’s eye**  **Levels of ecology** |
| **9/20**  **9/23** | **1. Group activity: energy pyramids**  **2. Notes: cycles**  **3. Handout: cycles** | **Std 1-Obj 1**  **Std 1-Obj 2** |  |
| **9/24**  **9/25** | **1. Notes: Biomes**  **2. Handout: biome map** | **Std 1-Obj 3** |  |
| **9/26**  **9/27** | **1. GSL powerpoint and booklet**  **2. Notes: the impact of people**  **3. Book questions** | **Std 1-Obj 2**  **Std 1-Obj 3** | **Journal 6: Commercial Ad**  **Create an ad for the Great Salt Lake** |

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| **9/30**  **10/1** | **1. Handout: Biological magnification**  **2. Outline: resources-soil, water, air (pages 158-165)** | **Std 1-Obj 2**  **Std 1-Obj 3** |  |
| **10/2**  **10/3** | **1. Review**  **2. Test-ecology** |  |  |
| **10/4**  **10/7** | **1. Notes: intro to chemistry**  **2. Review periodic chart in book**  **3. Handout: Atom chart** | **Std 2-Obj 1** |  |
| **10/8**  **10/10** | **1. Notes: bonds and reactions**  **2. Lab: chemical and physical changes**  **3. Handout: formulas** | **Std 2-Obj 1** | **Journal 7: explanatory paragraph**  **Explain how to draw an atom** |
| **10/11**  **10/14** | **1. Notes: pH**  **2. Lab: determining pH** | **Std 2-Obj 1** | **Journal 8: writing a list**  **Use p. 39 to create a list as directed** |
| **10/15**  **10/16** | **1. Notes: carbohydrates and lipids**  **2. Handout: review of atoms and bonding** | **Std 2-Obj 1** |  |
| **10/21**  **10/22** | **1. Notes: proteins, enzymes, nucleic acids**  **2. Model: enzyme activity** | **Std 2-Obj 1** | **Journal 9: explanation**  **Explain the lock and key theory** |
| **10/23**  **10/24** | **1. Review**  **2. Test: chemistry** |  |  |
| **10/25**  **10/28** | **1. Notes: discovery of cells**  **2. Class Lab: prokaryotic vs. eukaryotic cells**  **3. Handout: cell timeline (book)**  **4. Biology quarterly post-test** | **Std 2-Obj 3** |  |
| **10/29**  **10/30** | **1. Notes: cell organelles**  **2. Lab: using the microscope**  **3. Handout: cell catalog** | **Std 2-Obj 3** |  |
| **10/31** | **See next quarter** |  |  |

**Biology Lesson Plans Quarter 2 2013-2014**

**Date Lesson and Activities State Core Journal writing**

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| **10/31**  **11/4** | **1. Biology quarterly pre test**  **2. Notes: cell organelles**  **3. Lab: plant and animal cells**  **4. Work on cell catalog** | **Std 2-Obj 3** | **Journal 1: Venn diagram**  **Compare prokaryotic and eukaryotic cells** |
| **11/5**  **11/6** | **1. Drawing of cell functions**  **2. Handout: cell organelles**  **3. Finish cell catalog** | **Std 2-Obj 3** | **Journal 2: analogy**  **Compare a cell to a city, school, business, etc.** |
| **11/7**  **11/8** | **1. Quiz: label plant or animal cell**  **2. Demo: Diffusion in air and liquid**  **3. Notes: movement through a membrane** | **Std 2-Obj 3** |  |
| **11/11**  **11/12** | **1. Notes**  **2. Handout: movement through a membrane** | **Std 2-Obj 3** | **Journal 3: diagram**  **Show the flow of water from a cell in a beaker** |
| **11/13**  **11/14** | **1. Review**  **2. Test on cell structure and function** |  |  |
| **11/15**  **11/18** | **1. Notes: photosynthesis**  **2. Lab: pigments**  **3. Handout: timeline (book)** |  | **Journal 4: word pairs**  **Create a sentence from the pair of words** |
| **11/19**  **11/20** | **1. Notes: respiration**  **2. Handout: vocabulary**  **3. Handout: review of cellular energy** | **Std 2-Obj 2** | **Journal 5: diagram and explain**  **Diagram Joseph Priestley’s experiment and explain it** |
| **11/21**  **11/22** | **1. Notes: cell division**  **2. Lab: cell size (agar blocks)**  **3. Handout: cell division** | **Std 2-Obj 3** |  |
| **11/25**  **11/26** | **1. Notes: cell division**  **2. Lab: onion root tips**  **3. finish mitosis booklet** | **Std 2-Obj 3** |  |
| **12/2**  **12/3** | **1. Activity: graphing cell cycle**  **2. Handout: review of cell division** | **Std 2-Obj 3** | **Journal 6: apoptosis** |
| **12/4**  **12/5** | **1. Review of cell processes**  **2. Test** |  |  |
| **12/6**  **12/9** | **1. Notes: discovery of DNA**  **2. Group activity: DNA puzzle**  **3. Handout: timeline (book)** | **Std 4-Obj 3** | **Journal 7: DNA article**  **Answer questions on article** |

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| **12/10**  **12/11** | **1. Notes: DNA structure and replication**  **2. Handout: DNA replication**  **3. Book questions** | **Std 4-Obj 3** |  |
| **12/12**  **12/13** | **1. Notes: protein synthesis**  **3. model: building a paper protein** | **Std 4-Obj 3** |  |
| **12/16**  **12/17** | **1. Handout: mutations**  **2. Handout: DNA fingerprints** | **Std 4-Obj 3** |  |
| **12/18**  **12/19** | **1. Open book test: DNA** |  |  |
| **12/20**  **1/6** | **1. Notes: Genetic terms and crosses**  **2. Handout: practice crosses #1**  **3. Handout: probability** | **Std. 4-Obj 2** |  |
| **1/7**  **1/8** | **1. Class activity: human traits**  **2. Notes**  **3. Handout: practice crosses #2** | **Std. 4-Obj 2** | **Journal 8: coat of arms**  **Create a genetic coat of arms** |
| **1/9**  **1/10** | **1. Lab: Making babies**  **2. Handout: Pedigree charts** | **Std. 4-Obj 2** | **Journal 9: careers page 322**  **Choose 1 career to write about** |
| **1/13**  **1/14** | **1. Notes**  **2. Lab: meiosis**  **3. Biology quarterly post test** | **Std. 4-Obj 1** |  |
| **1/15**  **1/16** | **1. Notes**  **2. Lab: blood type**  **3. Handout: possible blood crosses** | **Std. 4-Obj 2** | **Journal 10: chart**  **Pedigree of a family trait** |
| **1/17**  **1/21** | **1. Quiz**  **2. Handout: Karyotypes**  **3. Handout: practice crosses #3** | **Std. 4-Obj 2** |  |
| **1/22**  **1/23** | **1. Handout: Huntington’s disease pedigree**  **2. Handout: Crossword review**  **3. Book questions** | **Std. 4-Obj 2** |  |

**Biology Lesson Plans Quarter 3 2013-2014**

**Date Lesson and Activities State Core Journal writing**

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| **1/27**  **1/28** | **1. Lab: cloning**  **2. Biology quarterly pre test** | **Std. 4-Obj 2** |  |
| **1/29**  **1/30** | **1. Review**  **2. Test on genetics** |  |  |
| **1/31**  **2/3** | **1. Movie: Biodiversity**  **2. Notes: Evolution**  **3. Handout: timeline** | **Std 5-Obj 2** | **Journal 1:**  **Complete evolution survey** |
| **2/4**  **2/5** | **1. Notes**  **2. Lab: fossil dig**  **3. Lab: fossil observation**  **4. Handout: fossil footprints** | **Std 5-Obj 2** |  |
| **2/6**  **2/7** | **1. Lab: variations**  **2. Handout: homologous structures** | **Std 5-Obj 2**  **Std 5-Obj 1** |  |
| **2/10**  **2/11** | **1. Notes**  **2. Lab: ferrets**  **3. Handout: natural selection** | **Std 5-Obj 1** | **Journal 2: hypotheses vs theories**  **Lamarck** |
| **2/12**  **2/13** | **1. Notes**  **2. Handout: comparing proteins**  **3. Handout: populations** | **Std 5-Obj 2**  **Std 5-Obj 1** |  |
| **2/14**  **2/18** | **1. Handout: geologic time**  **2. Movie: camouflage**  **3. Handout: crossword review** | **Std 5-Obj 2**  **Std 5-Obj 1** | **Journal 3: chart**  **Geologic time** |
| **2/19**  **2/20** | **1. Review of evolution**  **2. Test** |  |  |
| **2/21**  **2/24** | **1. Notes: classification**  **2. Class activity: classify monsters**  **3. Handout: scientific names** | **Std 5-Obj 3** |  |
| **2/25**  **2/27** | **1. Notes**  **2. Handout: classify shapes, primates**  **3. Handout: key to salamanders** | **Std 5-Obj 3** |  |
| **2/28**  **3/3** | **1. Lab: owl pellets, classify animal in pellet**  **2. Handout: four keys** | **Std 5-Obj 3** | **Journal 4: cladogram** |

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| **3/4**  **3/5** | **1. Lab: fashion a fish**  **2. Handout: crossword review** | **Std 5-Obj 3** | **Journal 5: classify**  **Classify members of lab group** |
| **3/6**  **3/7** | **1. Review**  **2. Test on classification** |  |  |
| **3/10**  **3/11** | **1. Notes: Plants**  **2. Lab: monocot and dicots**  **3. Handout: plant booklet** | **Std 3-Obj 1**  **Std 3-Obj 2** | **Journal 6: outline**  **Page 635 what a plant needs** |
| **3/12**  **3/13** | **1. Notes**  **2. Handout: leaf structure and function** | **Std 3-Obj 1**  **Std 3-Obj 2** |  |
| **3/14**  **3/17** | **1. Notes**  **2. Handout: roots and stems** | **Std 3-Obj 1**  **Std 3-Obj 2** | **Journal 7: vocabulary**  **Choose 5 words and write a 4 sentence paragraph** |
| **3/18**  **3/19** | **1. Notes**  **2. Lab: flower parts**  **3. Handout: flower diagram** | **Std 3-Obj 1**  **Std 3-Obj 2** | **Journal 8: classifying**  **Parts of plants we eat** |
| **3/20**  **3/21** | **1. Handout: pollination/seed dispersal**  **2. Handout: Plant Hormones**  **3. Biology quarterly post test** | **Std 3-Obj 1**  **Std 3-Obj 2** |  |
| **3/24**  **3/25** | **1. Handout: crossword review**  **2. Quiz: plants** |  |  |
| **3/26**  **3/27** | **1. Notes: Body systems**  **2. Handout: system matching-cut and paste** | **Std 3-Obj 1**  **Std 3-Obj 2** |  |
| **3/28**  **4/1** | **1. Notes**  **2. Lab: Heart rate**  **3. Handout: label diagram of heart** | **Std 3-Obj 1**  **Std 3-Obj 2** | **Journal 9: page 950 compare**  **Compare circulatory systems** |

**Biology Lesson Plans Quarter 4 2013-2014**

**Date Lesson and Activities State Core Journal writing**

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| **4/2**  **4/3** | **1. Notes**  **2. Lab: system comparison to invertebrate animal** | **Std 3-Obj 1**  **Std 3-Obj 2** | **Journal: Ads**  **Create ad for convincing teens to exercise or drink milk** |
| **4/4**  **4/7** | **1. Notes**  **2. Finish group posters**  **3. Presentations** | **Std 3-Obj 1**  **Std 3-Obj 2** |  |
| **4/8**  **4/9** | **1. Handout: puzzle**  **2. Handout: RAFT writing assignment** | **Std 3-Obj 1**  **Std 3-Obj 2** | **Journal:**  **Paragraph on life without one sense** |
| **4/10**  **4/11** | **1. Test: open note** |  |  |
| **4/14**  **4/15** | **1. Notes: fish**  **2. Lab: dissection of fish** | **Std 3-Obj 1**  **Std 3-Obj 2** |  |
| **4/16**  **4/22** | **1. Notes: amphibians**  **2. Lab: dissection of frog**  **3. Movie: amphibians** | **Std 3-Obj 1**  **Std 3-Obj 2** |  |
| **4/23**  **4/24** | **1. Quiz: frog structure**  **2. Notes: reptiles**  **3. Handout: FAR**  **4. Handout: lizard temperature regulation** | **Std 3-Obj 1**  **Std 3-Obj 2** | **Journal: cause and effect**  **DOL 52 Ecoalert what is the cause of frog mutations?** |
| **4/25**  **4/28** | **1. Movie: reptiles**  **2. Notes: birds**  **3. Handout: bird beaks and feet** | **Std 3-Obj 1**  **Std 3-Obj 2** | **Journal: sorting**  **Crocodile article** |
| **4/29**  **4/30** | **1. Movie: birds**  **2. Notes: mammals**  **3. Handout: mammal comparison** | **Std 3-Obj 1**  **Std 3-Obj 2** |  |
| **5/1**  **5/2** | **1. Lab: mammal intelligence**  **2. Lab: primate thumbs** | **Std 3-Obj 1**  **Std 3-Obj 2** | **Journal: page 848**  **Paragraph on social behavior** |
| **5/5**  **5/6** | **1. Review**  **2. Test: animals**  **3. Handout: animal mascots** |  |  |
| **5/7**  **5/8** | **1. Notes: protists and fungi**  **2. Lab: mushrooms** |  | **Journal: descriptive paragraph**  **Describe motion in protists** |

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| **5/9**  **5/12** | **1. Lab: Protists**  **2. Handout: Protozoan response**  **3. Handout: Protists and fungi** |  |  |
| **5/13**  **5/14** | **1. Notes: viruses**  **2. Lab: set up bacteria plates**  **3. Handout: viral reproduction** |  | **Journal: analyzing data**  **p. 591 graph chart, answer #3** |
| **5/15**  **5/16** | **1. Notes: bacteria**  **2. Lab: read bacteria plates**  **3. Handout: bacteria shapes** |  | **Journal: Venn diagram**  **Protists, fungi, bacteria** |
| **5/19**  **5/20** | **1. Lab: disease outbreak (cruise ship)**  **2. Handout: disease matching** |  | **Journal: p. 584-585**  **List important roles of prokaryotes** |
| **5/21**  **5/22** |  |  |  |
| **5/23**  **5/27** |  |  |  |
| **5/28**  **5/29** | **1. Collect books** |  |  |
| **5/30**  **6/1** | **Two days for SAGE tests (whenever we are assigned to take them)** |  |  |
| **6/3**  **6/4** |  |  |  |
| **6/5**  **6/6** | **1. Graduation/Yearbook day**  **1. Teacher check out day** |  |  |