Exam Wrapper 2: Reflection on your Continued Learning
(Due Monday, Nov. 3; 5 extra points towards Midterm 3)

You have just completed the second objective exam, assessing your progress toward achieving the Student Learning Outcomes for this course. This activity is designed to give you a chance to reflect on your continued development as a student and scholar. Please answer the questions sincerely. Your responses will be collected to inform me about student experiences related to the exam and how I can best support your learning. Your specific responses will have no impact on your grade.

1. What is your academic strength, that you rely on?

2. What is your academic weakness, that you will continue to improve over the next few years?

3. Approximately how much time did you spend preparing for this exam? ____________

4. What percentage of your test-preparation time was spent in each of these activities?
   - Reading textbook section(s) for the first time %
   - Re-reading textbook section(s) %
   - Reviewing Mastering Biology homework %
   - Using Mastering Biology’s Study Area %
   - Using the end-of-chapter materials in the text book %
   - Reviewing your own notes and study materials %
   - Reviewing the PowerPoints from lecture %
   - Answering the Preview/Review questions %
   - Drawing pictures of structures and processes %
   - Other (Please specify: ____________________________) %

5. Now that you have looked over your graded exam, estimate the percentage of points you lost due to each of the following (make sure the percentages add up to 100%):
   - Bad bubbling (knew the answer and bubbled the wrong one) %
   - Second-guessing yourself and changing your answer %
   - Didn’t understand the question %
   - Mixed up facts %
   - Didn’t study certain topics/subtopics %
   - Didn’t thoroughly understand the concept %
   - Other (Please specify: ____________________________) %

6. What aspect(s) of your preparation for this exam seemed different from your Midterm 1 preparation? Did these changes have any effect? Positive? Negative?

7. Regardless of what your test grade is, how would you evaluate your learning for this exam, compared to the previous? Did you learn the same, more, less?
Let’s check in with the Syllabus! Are we meeting the course objectives?

Please check each box on which you feel we have made significant progress already.

**Purpose of Course**
The purpose of the introductory series is twofold: (1) to introduce students to the breadth of the biological sciences and (2) to help beginning biology majors master the fundamental facts and theories needed for success in subsequent courses. The learning objectives will be met through a combination of Lecture (LE) & Lab (LA) experiences.

**Course Objectives**
Students will be introduced to foundational principles in biology:

- 1. All living things come from a common ancestor.
- 2. Biological structures exist at all levels of organization, from molecules to ecosystems.
- 3. A structure’s physical and chemical characteristics influence its interactions with other structures, and therefore its function.
- 4. Biological molecules, genes, cells, tissues, organs, individuals, and ecosystems interact to form complex systems.
- 5. Cells/organs/organisms have multiple mechanisms to perceive and respond to changing environmental conditions.
- 6. Energy and matter flow between organisms and the abiotic environment.
- 7. Organisms have complex systems that integrate internal and external information, incorporate feedback control, and allow them to respond to changes in the environment.
- 8. Organisms inherit genetic and epigenetic information that results in their physical and behavioral characteristics.
- 9. Species evolve over time, and new species can arise, when allele frequencies change due to mutation, natural selection, gene flow, and genetic drift.

**Student Learning Outcomes (from lecture LE and lab LA)**
Successful students will be able to:

- Describe the properties that unite the three domains of living things. (LE)
- Identify relationships between structure and function at all levels of biological study. (LE, LA)
- Describe the major groups of biological macromolecules and explain their importance of each to cellular structures and functions. (LE)
- Identify structures of prokaryotic and eukaryotic cells and explain the functions they perform. (LE, LA)
- Describe how the cell integrates into the hierarchical organization of living systems. (LE)
- Explain how and why cells communicate to coordinate their activities. (LE)
- Explain how energy and materials flow within and between cells, and between cells and the environment. (LE, LA)
- Identify the processes by which the cell obtains and produces needed resources. (LE, LA)
- Explain the stages in the cell's life cycle in single celled and multicellular organisms, including growth, cell reproduction, and apoptosis. (LE, LA)
- Describe the process by which cells pass on genetic information to their offspring and explain how sexual reproduction results in genetic diversity. (LE, LA)
- Describe how genes encode information and explain how this results in the structure and function of organisms. (LE)
- Identify the processes that result in changes in genomes, resulting in unique individuals, populations and species. (LE, LA)
- Explain the scientific method and describe specific techniques used to scientifically study living things. (LE, LA)

Students will also:

- Practice self-assessment and reflection while developing the necessary study skills for success in science coursework. (LE, LA)
- Practice using the process of scientific inquiry as a means of understanding the natural world. (LE, LA)
- Make connections between the factual information provided by science and the relevance of biology to broader societal issues. (LE, LA)
- Demonstrate a professional and respectful manner when communicating and working with peers, instructors, and staff, as practice for success in the workplace and community. (LE, LA)