7th Grade Life Science

2016-2017

Ms. Leigh
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Course Description:
7th Grade science students will start by developing both their science skills and their ecological prowess in the fall (while the weather is nice) through an inquiry-based format. As the fall transitions to winter, we too will shift our focus to the smallest details and parts of life science, cellular biology. We will pull these ideas together in a unit called: Evolution, Adaptation, Extinction, Oh My! We will continue our developing our science skills through the spring by studying the kingdoms of life and the human body.

Our major objective throughout the year will be to develop scientific skills such as: observations, research, developing questions, experimental design and execution, then drawing conclusions. This will include a diversity of data collection methods, science reading, and the use of math skills. There will be numerous activities and experiments. Students will be expected to maintain a science notebook, complete homework, study vocabulary, and overall come to class intellectually prepared.

What to bring to class EVERYDAY:

- Positive attitude
- Pencil or pen
- 3-ring binder with lined paper OR
- two compositions notebooks (one for fall, one for spring)

Classroom Expectations:
Students can expect Ms. Leigh to be prepared every day and to establish an environment that is supportive and conducive to learning.

RISE: **R**espect yourself and others, demonstrate **I**ntegrity in classwork and community, **S**afety in the classroom, and **E**mpathy towards all citizens of LSE.

Ms. Leigh expects that students will arrive to class on-time, prepared to TRY, THINK, and PARTICIPATE every day. Outcomes of preparedness, is enjoyment of science class and learning that will help beyond middle school at LSE.

A little about Ms. Leigh:
I will "geek out" without warning at insects, birds, trees, stones, weather events, and odd human behavior. Professionally, I have been involved in field biology (outdoor data collection) for 10 years. I have studied song birds throughout Colorado, endangered butterflies in the mountains, invertebrate communities in alpine environments, Gunnison Sage Grouse, prairie dogs, forest health in WY, and the magical interactions that are occurring right now in my backyard.

This will be my third year at the Lotus School. I have a Masters degree from University of Wyoming in Science Education and an undergraduate degree in Ecology from Western State Colorado University. My teaching mantra is to include all students, everyday. Science is absolutely the best subject in school, I am thrilled to share this energy with my students. I practice relentless enthusiasm and support for all students' success in my classes.
Please contact me via email with any questions or concerns.

Course Outline:

Unit I: Nature of Science and Ecology
- a. Introduction to Life Science
- b. The Nature of Science and applying the scientific method
- c. Ecological Concepts

Unit II: Evolution, Adaptation, Extinction, Oh My!
- a. Darwin's Theory
- b. Historical Extinctions

Unit III: Cellular Biology and Processes
- a. Molecules of Life
- b. Cell Biology
- c. Cell Process (respiration and photosynthesis)

Unit IV: Hot topics and Logistics in Genetics
- a. Genetics and Heredity
- b. Modern Genetics
- c. Ethical Considerations??

Unit V: The Human Body
- a. Systems
- b. Dysfunctions

Unit VI: Environmental Science
- a. Human Populations
- b. Ecological Responses
- c. WHAT NEXT??

Throughout the year students will be asked to complete research projects and science experiments. Students will be asked to participate in STEAM Fest, but participation is not required.

Sign and return to class this by Friday, August 5th

Parent/Gaurdian Signature _____

Middle School Honors Expectations

1. Honors students will finish any given quarter with a C or above in all core classes. Students failing one or more core classes in the middle of a semester will be placed on probationary status.

2. Honors students will consistently turn in work on-time **in all classes.** Honors students are expected to be organized, and are responsible for meeting all assigned deadlines. This includes completion of make up work caused by absences.

3. **In all classes,** each honor student will turn in work that is complete and of the highest quality based on on his or her ability (in other words, work is to be of the highest standard, as opposed to "last-minute" quality).

4. Each honors student will consistently and regularly meet the behavior expectations of his or her teachers, based on each teacher's rules and behavior standards.

5. At no point during the school year is an honor student's BTS score to drop below zero.

6. Honors students are to exhibit the characteristics of ideal school leaders. They will be professionals in all aspects of school life, including: academics, demeanor, peer-to-peer interactions, interactions with teachers, and behavior.

7. Honors students will complete any additionally assigned honors projects, which may include independent work outside of class. This may also include extensions to assignments completed by the other classes. Honors classes are more heavily weighted, resulting in a higher grade point average, which is justified by the additional work.

8. Honors students will not have more than six absences in one academic quarter. Students who exceed this limit will be placed on probationary status.