



3rd QUARTER SYLLABUS

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| TITLE OF COURSE: 7 th Grade Life Science | GRADE LEVEL/DURATION OF COURSE: 7 th Grade/ Full Year | TEACHER NAME & E-MAIL: Kristin Page-Botelho kpage@asa.edu.py | |
| STANDARDS: | ESSENTIAL QUESTIONS: | LEARNING OBJECTIVES: | |
| <p>Understand the transmission of traits in living things.</p> <p>Describe and analyze the principles of natural selection and adaptation.</p> <p>Understand that scientific knowledge is subject to change based on new findings and results of scientific observation and experimentation.</p> | <p>How do scientists organize our knowledge of the universe?</p> <p>How do scientists use evidence, models, and explanations to communicate about discoveries?</p> <p>How do scientists measure change?</p> <p>What forces cause change?</p> <p>What is the relationship between structure and function in objects, organisms, and systems?</p> <p>How do scientists explore, observe, ask questions, collect data, and find patterns?</p> | Vocabulary <ul style="list-style-type: none"> • Genetics • Punnett square • Heredity • Dominant • Recessive • Homozygous • Heterozygous • Mendel • Genotype • Phenotype • Probability • Genes • Alleles | <ul style="list-style-type: none"> • Incomplete dominance • Codominance • Meiosis • Sex cells • Sex chromosomes • Pedigree • Nucleotide • Mutation • Evolution • Adaptation • Darwin • Natural selection • Speciation |
| | | Skills <ul style="list-style-type: none"> ▪ Explain how the traits of an organism are passed from generation to generation. ▪ Identify traits inherited through genes and those resulting from interactions with the environment. ▪ Use simple laws of probability to predict patterns of heredity with the use of Punnett Squares. ▪ Explain how our understanding of heredity has changed over time. ▪ Formulate and defend an opinion about current genetic issues (Ex; cloning, genetically modified foods, stem cell research, etc.) ▪ Compare and contrast mitosis and meiosis. ▪ Describe the four parts of Darwin’s theory of evolution. ▪ Identify evidence that supports the theory of evolution. ▪ Identify and explain how random variations in species can be preserved through natural selection. ▪ Describe how animal and plant structures adapt to environmental change. | |



ASSESSMENTS:

Student Grades will be determined by the following:

- 35% Tests/Quizzes
- 20% Labs/Hands-on Activities/Projects
- 15% Class work
- 10% Nature Journals
- 10% Participation
- 10% Homework

Tests/Quizzes – Students can expect approximately 1 quiz every two weeks and a comprehensive test at the end of each chapter.

Labs/Hands-on Activities/Projects – Students can expect to participate in 1 hands-on activity or lab about every other week as well as several projects throughout the quarter. Students will be provided and instructed about grading rubrics for all projects prior to starting the project.

Class work – Students will complete daily warm-ups or science news responses, which will be collected weekly. Students will also complete a variety of in-class assignments on a regular basis.

Participation – Students can earn 2 participation points per day. If students are participating positively in class, contributing to class discussions, asking thoughtful questions about topics being taught, working cooperatively with classmates during labs and group-work, and not causing disruption to the learning environment they will earn their participation points.

Nature Journals – Students will be given a nature journal assignment approximately every other week. These assignments will incorporate writing, artwork, and reflections on learning. Students will be instructed in class about expectations for each journal entry. Students will also be expected to complete one entry of their choice for every 3 assigned entries. Students will be given a due date and the journals will be collected after every 3rd assigned entry. A grading rubric will be used to grade all journal entries.

Homework – Students will be given a variety of homework assignments throughout the quarter. It is expected that all assignments be completed individually. Instruction for all assignments has occurred before assignments are given and therefore assignments are a way of reinforcing concepts taught in class.

RESOURCES:

Science and Technology: Life Science. Holt, Rinehart, and Winston, 2005.

<http://go.hrw.com>

www.mrspage.com

TEACHER AVAILABLITLY FOR EXTRA HELP AND MEETING WITH STUDENTS:

I will always be available **Mondays and Thursdays** from **3:30-4:15 p.m.** in room **H-11**.