Course Title: GRADE SEVEN SCIENCE-A

Course No. N/A **Grade level**: 7

Text and Resource Options:

A. *Holt Science and Technology: Life Science;* Holt, Rinehart
B. *Concepts and Challenges in Life Science*; Globe Fearon

Course Content: Key Content Standards and Course Objectives

The following objectives are based on the Grade 7 science content standards:

1. **Cell biology**: All living organisms are composed of cells, from just one to many trillions, whose details usually are visible only through a microscope.
2. **Genetics**: A typical cell of any organism contains genetic instructions that specify its traits. Those traits may be modified by environmental influences.
3. **Evolution**: Biological evolution accounts for the diversity of species developed through gradual processes over many generations.
4. **Earth and Life History**: Evidence from rocks allows us to understand the evolution of life on Earth.
5. **Structure and Function in Living Systems**: The anatomy and physiology of plants and animals illustrate the complementary nature of structure and function.
6. **Physical Principles in Living Systems**: Physical principles underlie biological structures and functions.

Investigation and Experimentation

Students will ask meaningful questions and conduct careful investigations addressing the content of the above Life Science standards.

Course Description

***Course Value**: One Semester

Credit Value: One Course

Seventh grade science is focused on life science. One reason for this focus is the students' own biological and behavioral transition into early adolescence. Young adolescents make decisions that can have an enormous influence on their lives. The study of life science provides a knowledge base upon which they can make well-informed and wise decisions about their health and behavior.

Another important reason for the focus on life science in seventh grade is to encourage young adolescents to continue to build their knowledge of the natural sciences. A foundation in modern biological sciences is essential for many career fields, including technology.

*Open entry/open exit

Methods of Study

1. Students will complete all activities assigned.
2. Students will participate in discussion with other class members and/or teacher.

Evaluation of Performance Standards

1. Students will complete all assignments and assessments with a minimum of 70% accuracy.
2. The supervising teacher will be satisfied with the quality of the student's work.

GRADE SEVEN SCIENCE A

Course Outline

I. Textbook Assignment Options:

A. *Holt Science and Technology, Life Science* **(1 Course)**

- Read: Units 1-3.
- Complete: all Section Review questions.
- Complete: "Using Vocabulary" and "Understanding Concepts" in the Chapter Reviews.
- Complete one Extension Activity

B. *Concepts and Challenges in Life Science* (1998 Edition) **(1 Course)**

- Read: Units 1-9.
- Complete: "Check" and "Apply" exercises in Lesson Summaries.
- Complete: Unit Challenges: "Tech Terms," "Content Challenges," and "Reading Critically" exercises.
- Complete one Extension Activity

C. *Concepts and Challenges in Life Science* (2003 Edition) **(1 Course)**

- Read: Units 1-3.
- Complete: Lesson Activities "Checking Concepts" and "Thinking Critically."
- Complete: Chapter Challenges: "Key Term Challenge" exercises and "Content Challenges" only.
- Complete one Extension Activity.

II. Extension Activity Options

1. Using the Internet, go to www.google.com and conduct research on one of the following topics related to Life Science:
    a. HIV/AIDS
    b. Blood Types
    c. Amphibians

   Write a 1 paragraph summary based on your research. Use Writing Rubric SI.
2. Complete a PowerPoint presentation consisting of at least 3 slides that illustrates examples of animals classified as mammals. Include a Title/Cover page in your presentation.
3. Use the Internet (www.google.com) and/or the resource of your choice to learn about a "ball and socket joint". Using Microsoft Word, type a 1 paragraph summary based on your findings. Be sure to include some examples of ball and socket joints in your paragraph. Use Writing Rubric SI.
4. Teacher generated activity, approved by the site administrator.

III. Evaluation

- Unit and/or final test.
- All textbook work must meet the 70% accuracy level for a "C" grade.