



**SOUTHERN LEHIGH SCHOOL DISTRICT**  
5775 Main Street  
Center Valley, PA 18034

## **Planned Course for Science**

**Course:** Grade 6 Life Sciences

### **Standards:**

This course is aligned to standards within the following categories of the Pennsylvania Academic Standards for Science and Technology and Engineering Education and the Pennsylvania Standards for Environment and Ecology:

- 3.1 Biological Sciences
- 4.1 Ecology
- 4.3 Natural Resources
- 4.5 Humans and the Environment

### **Course Description:**

The K-12 science program within Southern Lehigh School District will foster the development of scientific thinking and logical reasoning. A rigorous curriculum will provide opportunities for students to learn how to ask questions and define problems in order to plan and carry out investigations. Students will be challenged to construct explanations and design solutions through collaborative experiences where they engage in arguments that are based on evidence. Teachers will provide students with hands-on and authentic experiences aligned to a coherent progression of learning.

In GRADE 6 LIFE SCIENCES, students will continue to develop their understanding of change, cycles, patterns, and relationships in the living world. Students build on basic principles related to these concepts by exploring the cellular organization and the classification of organisms; the dynamic relationships among organisms, populations, communities, ecosystems, and change as a result of the transmission of genetic information from generation to generation. Conceptual understanding will be built based on the understanding that explanations of nature are developed and tested using observation, experimentation, models, evidence, and systematic processes based on logical thinking. Inquiry skills within this course will include organization and mathematical analysis of data, manipulation of variables in experiments, and identification of sources of experimental error.

### **Measurable objectives to be attained by students:**

Specific objectives for this course are aligned to the Next Generation Science Standards, the Pennsylvania Academic Standards for Science and Technology and Engineering Education, the Pennsylvania Standards for Environment and Ecology, and the Pennsylvania Core Standards for Reading and Writing in Science and the Technical Subjects as outlined in the Scope and Sequence for Grade 6 Life Sciences.

**Instructional Strategies:**

A science program demands the use of a variety of instructional strategies to foster scientific thinking. Below is a list of suggested strategies for high-quality instruction:

- Instructional components outlined in the *Framework for Teaching* by Charlotte Danielson
- Hands-on learning
- Posing questions for investigation
- Cooperative learning and collaboration
- Inquiry, engineering, and design

**Estimated Instructional Time:**

46 minutes per day for one school year

**Forms of Assessment to Measure Attainment of Course Objectives:**

- Curriculum-based measures
- Benchmark Assessments
- Formative Assessments
- Summative Assessments
- Performance-Based Assessments

**Resources:****Student Text Resources:**

Eddleman, Scott. *CPO Science: Life Science*. CPO Science, 2017.

- Student Text Printed Version
- Student Text Online Version
- Investigations Manual

**Teacher Resources:**

Eddleman, Scott. *CPO Science: Life Science*. CPO Science, 2017.

- Teacher's Guide Printed Version with Online Access

**Technology:**

District approved supplemental technology

**Other Resources:**

CPO Science Equipment Kits for Life Science

Teacher created resources

District approved supplemental resources and labs