



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

## **Planned Course for Science**

**Course:** Kinesiology

### **Standards:**

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

- 3.1 Biological Sciences
- 3.2 Physical Sciences: Chemistry and Physics

### **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.

KINESIOLOGY is the study of movement of the human body. The study of KINESIOLOGY covers a broad area of topics, with multiple fields of study falling under the kinesiology umbrella. Areas of study include: human anatomy and physiology of the musculoskeletal system and neuromuscular systems, biomechanics, biochemistry of human metabolism, and neurobiology.

### **Prerequisite(s):**

- Successful completion of a Biology course; AND
- Successful completion of a Chemistry course

### **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, and the Pennsylvania Core Standards for Reading and Writing in Science and the Technical Subjects as outlined in the Scope and Sequence for Kinesiology.

**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:**

77 minutes per day on an alternating A/B block schedule 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:**

Temertzoglou, Ted, et al. *Kinesiology: an Introduction to Exercise Science*. Thompson Educational Publishing, Inc., 2015.

- Student Text Printed Version

**Teacher Resources:**

Temertzoglou, Ted, et al. *Kinesiology: an Introduction to Exercise Science*. Thompson Educational Publishing, Inc., 2015.

- Teacher's Guide Printed Version

**Technology:**

District approved supplemental resources

**Other Resources:**

Teacher created resources

District approved supplemental resources and labs