

Brandywine Heights Area School District
200 West Weis Street, Tipton, PA

Course Syllabus for 7th Grade Life Science

Overview: Life Science is an introductory laboratory Biology course. Students are expected to leave 7th grade with a working knowledge of the equipment and procedures necessary for higher learning in Biology classes as well as fundamental biological concepts.

Textbook(s) and Other Resources used: Students will receive a series of four textbook modules throughout the year. Students will not have all of the books at the same time; instead, the proper book will be assigned to the student in accordance with the curriculum and collected when that section has been completed. The text series includes:

Holt Science & Technology: Microorganisms, Fungi, and Plants. Holt, Rinehart, and Winston. Austin, 2005.

Holt Science & Technology: Cells, Heredity, and Classification. Holt, Rinehart, and Winston. Austin, 2005.

Holt Science & Technology: Animals. Holt, Rinehart, and Winston. Austin, 2005.

Holt Science & Technology: Environmental Science. Holt, Rinehart, and Winston. Austin, 2005.

Outline of Content:

First Quarter

Topics:

- Lab safety and the scientific method
- Characteristics of living things and necessities of life
- Interaction of living things (symbiotic relationships, environmental organization, food chains, and food webs)
- Ecosystems of the Earth

Second Quarter

Topics:

- Environmental problems and solutions (pollution, habitat destruction, conservation, and biodiversity)
- Cell structure and function
- The cell cycle (mitosis)

Third Quarter

Topics:

- Heredity: Inheritance and the structure of DNA
- Classification of living things (6 kingdom classification)
- Characteristics and reproduction of bacteria and viruses

Fourth Quarter

Topics:

Characteristics and reproduction of protists, fungi, and plants

Adaptation and evolution: Changes in species over time

Zoology (animal behaviors, invertebrates, fish, amphibians, reptiles, birds, and mammals)

Projects: Assignments each quarter will include lab experiments, special projects, homework, and in-class cooperative work. Students will also be assessed by quizzes and tests.