

**Brandywine Heights Area School District**  
**200 West Weis Street, Tipton, PA**  
**Course Syllabus for 6<sup>th</sup> Grade Science**

**Overview:**

Students will receive instruction in many areas of science, making this a general science curriculum. Hands-on activities are designed to provide familiarity and competency in investigative scientific procedures and lab materials as well as the higher order thinking skills needed for analytical problem solving. Chemistry, astronomy, physics, nutrition, and an environmental unit provide the core for these investigations.

**Textbook(s) and Other Resources used:**

The Nature of Science and Technology: Prentice Hall Copyright, 2009

Motion, Forces, and Energy: Prentice Hall Copyright, 2009

Astronomy: Prentice Hall Copyright, 2009

Weather and Climate: Prentice Hall Copyright, 2009

Hands-on modules: Variables, and Food Chemistry.

Microscope Explorations, Variables, Food Chemistry, Astronomy, and Climate and Weather also have teacher-made handouts that accompany them.

**Outline of Content:**

**First Quarter**

**The Nature of Science and Technology**

- What is Science?
- The Work of Scientists
- Technology and Engineering

**Variables**

- Pendulums
- Boats
- Planes
- Catapults
- Graphing Data
- Drawing Conclusions and Problem Solving

**Projects, Papers, and Tests:** Current events article summary, Labs and accompanying written activities, Variables presentation, Formal assessments (test and quizzes)

**Second Quarter**

**Food Chemistry**

- Starch
- Glucose
- Carbohydrates
- Fats
- Proteins
- Vitamins and Minerals
- Comparing Food Labels

**Projects, Papers, and Tests:** Labs and accompanying written activities, Study guide, Nutrition record, Formal Assessments (tests and quizzes)

### **Third Quarter**

#### **Astronomy**

- Earth, Moon, and Sun
- Ancient Models of the World
- Exploring Space
- The Solar System
- Stars Galaxies and the Universe

#### **Microscope Explorations**

- Up Close Lab
- Money Lab
- Fingerprint Lab
- Parts of a Microscope
- Wet/Dry Mount Slides

**Projects, papers, and Tests:** Scientist research project, Labs and accompanying written activities, Moon Observation, Presentation of Early Civilizations Myth, Parts of a Microscope Demonstration, Formal Assessments (tests and quizzes)

### **Fourth Quarter**

#### **Weather and Climate**

- The Atmosphere
- Weather Factors
- Weather Patterns
- Climate and Climate Change

#### **Science Review**

- Scientific Method
- Key Concepts Learned
- Scientific Tools

**Projects, Papers, and Tests:** Labs and accompanying written activities, Environmental Web Quest, Role Playing, Formal Assessments (tests and quizzes)