

## *Norwood Public Schools*

# **Grade 7 Science Curriculum Overview**

### **Description:**

The seventh grade science program includes topics in Physical, Earth, and Life Sciences. Students will continue to develop their skills in critical thinking and scientific problem solving. Physical Science topics to be studied include matter, elements, compounds, and mixtures. The Earth Science unit includes astronomy topics such as the seasons, moon phases, tides, eclipses, the sun, galaxies, and the planets. Life Science topics to be covered include cell reproduction, genetics, biotechnology, and human body systems. Daily homework is expected as well as extended assignments such as writing assignments and projects.

### **Learning Experiences:**

- Students communicate results and findings through lab reports and oral presentations.
- Students make observations/inferences, ask questions, and formulate hypotheses.
- Students record, present, and analyze data using tables, graphs, and models.
- Students practice lab techniques such as using microscopes, measuring, etc.
- Students work cooperatively in groups
- Students learn and practice strategies for reading and writing in the content area (outlining, note-taking)
- Students develop research skills using online and print media.

### **Content Outline:**

#### Term 1

Scientific Inquiry: Scientific Method, Variables, Lab Report Format

Physical Science: Introduction to Matter, Solids, Liquids, and Gases

#### Term 2

Astronomy: Earth, Moon, and Sun Relationships, Planets, Stars, Galaxies, and the Universe.

#### Term 3

Life Science: Cell Reproduction, Genetics, Probability, Modern Genetics, and Biotechnology

#### Term 4

Life Science: Human Body Systems (Bones, Muscles, Skin, Digestion, Circulation, Lymphatic, Respiration, Excretion, Immunity, Nervous, and Endocrine Systems)

## **Resources Used:**

- Prentice Hall Science Explorer Series, Pearson Education, Inc., 2009.  
*Chemical Building Blocks, Astronomy, Cells and Heredity, Human Body Systems*
- Massachusetts Department of Elementary and Secondary Education: Science and Technology/Engineering Curriculum Framework, October 2006.
- Discovery Education/United Streaming videos
- BrainPop
- Topic specific DVD's (*Bill Nye*, etc)
- Related school assemblies and presenters
- *Current Science* and various other related science articles/magazines

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