

SCIENCE

All senior high school science courses are centered on four general learner expectations:

- ◆ attitudes: an enthusiasm for, and a continuing interest in, science
- ◆ knowledge: an understanding of the fundamental concepts of science
- ◆ skills: scientific inquiry and appropriate use of technology
- ◆ **s**cience, **t**echnology and **s**ociety (STS) connections: how scientific knowledge develops, solving problems and making choices.

SCIENCE 10 (5 CREDITS)

This academic course provides students with a unified view of the chemical, physical, biological and earth sciences and an awareness of the connections among them.

Science 10 is the prerequisite for all the academic sciences.

The four topics covered are:

- ◆ Energy from the Sun
- ◆ Matter and Energy in Living Systems
- ◆ Matter and Energy in Chemical Change
- ◆ Energy and Change.

BIOLOGY 20 (5 CREDITS EACH)

This academic program explores the interactions of living systems with one another and with their environment. In Biology 20, the underlying theme is energy and matter exchange

Biology 20

The four topics covered are:

- ◆ The Biosphere
- ◆ Energy Flows and Cellular Matter
- ◆ Energy and Matter Exchange in Ecosystems
- ◆ Energy and Matter Exchange by the Human Organism.

CHEMISTRY 20 (5 CREDITS EACH)

This academic program is designed to study matter and its changes. Students, through the study of Chemistry 20, are given an opportunity to explore and understand the natural world and to become aware of the profound influence of chemistry on their lives.

Chemistry 20

The four topics covered are:

- ◆ Matter as Solutions, Acids, Bases and Gases
- ◆ Quantitative Relationships in Chemical Changes
- ◆ Chemical Bonding in Matter
- ◆ The Diversity of Matter: An Introduction to Organic Chemistry.

PHYSICS 20 (5 CREDITS EACH)

This academic program is designed to study matter and energy and their interactions. Physics 20– 30 helps students understand the physics principles behind the natural events they experience and the technology they use in their daily lives.

Physics 20

The four topics covered are:

- ◆ Kinematics and Dynamics
- ◆ Circular Motion and Gravitation
- ◆ Mechanical Waves
- ◆ Light.