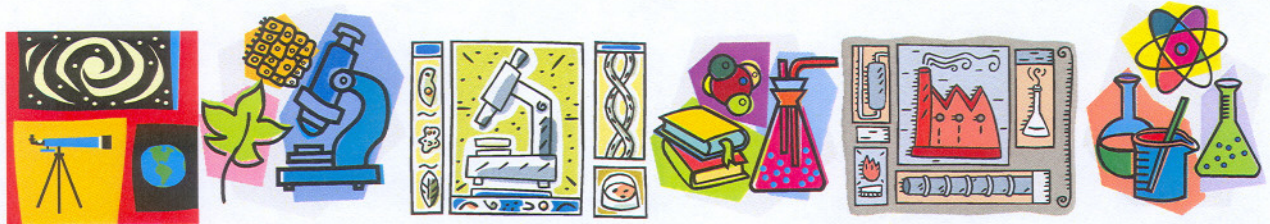
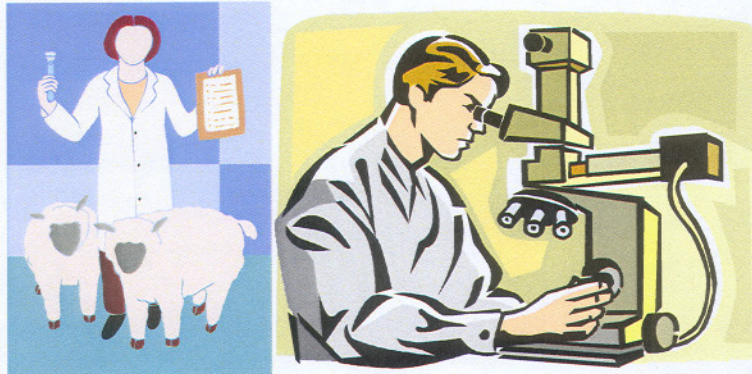


Science



Do You...

- Enjoy working with people to solve real life problems?
- Enjoy finding out why and how living & non-living things function?
- Enjoy working with computers?
- Enjoy collecting & organizing specimens or information?
- Have good math skills?
- Enjoy investigating how elements of life function & work together?
- Are you interested in the medical field?



People in this theme have a strong scientific interest and are always asking "why?"

Career Personality Type:

- Logical
- Inquisitive
- Scientific
- Observant
- Curious
- Analytical
- Precise

Careers: engineering, medical, agricultural, life and physical sciences, biotechnology, agronomy, zoology, physiology, botany, natural resources, therapy, pharmacy, pre-dentistry, chemistry, crime lab technician, soil scientist, water quality analyst, etc.



SCIENCE

PHYSICAL SCIENCE - 1 Year

Students study basic concepts of physics, chemistry, metric system, heat, light and electricity. Students are expected to use work formulas; work with laws of motion; identify parts of elements; demonstrate the differences between solids, liquids and gases. In addition, students will use the periodic chart to identify elements, make a pH chart, explain how electricity flows in conductors and explore how light affects certain substances.

BIOLOGY - 1 Year - REQUIRED

Biology is a required course in which students will study the forms of life in a phylogenetic sequence placing scientific knowledge in the context of its discoveries. Students will study the biological themes and process, cell structure and function, micro-organisms, fungi, plants, invertebrates, vertebrates, human biology, organization of tissues, organs and organ systems, genetics, and heredity. All students will be expected to acquire an understanding of the scientific process, and use these processes to guide them through various labs including dissection of animal specimens. The student will also be encouraged to use computer technology to aid them with lab work, written papers, and research. There will be a high emphasis placed on each student's understanding of lab safety rules and general laboratory procedures.

ECOLOGY - 1 Semester

An ecology student will be introduced to environmental topics that include: the biosphere, biomes, ecosystems, biotic communities, populations, water resources, wildlife and endangered species, pollution, orienteering, and field biology skills. The student will be expected to recognize how environmental education is integrated throughout all academic courses, and the importance that environmental issues have in developing our decisions. An emphasis in library research, life-style assessment, and classroom presentations will be required. (prerequisite: limited to 20 students per semester. Juniors and Seniors only, with Seniors having priority.)

AP BIOLOGY - 1 Year

Students study molecules and cells, genetics and evolution, organisms and populations, plant and animal kingdoms and Bio-chem. Students conduct labs for hands-on experience in these areas. This course will give students the opportunity to earn college credit in college level Freshman Biology. (prerequisite: Juniors and Seniors only; B or above in Biology and Chemistry.) Limited to 20 students.

CHEMISTRY 1 Year

In chemistry students study the properties of matter and how those properties determine chemical activity. Students start out studying atoms and atomic structure, which are the building blocks for molecules, compounds, and formulas. Once students master the concepts of compounds and formulas, they use acquired knowledge to study water, phases of matter, energy, gas laws, acids, bases, salts, oxidation-reduction nuclear, and organic chemistry. Strategies used to teach this course include lecture time, problem solving, and laboratory work. Chemistry is required by college and technical schools for most science related majors. Entrance into some programs is prohibited without a high school chemistry class. Careers that require chemistry are medicine, engineering, paper science, wildlife biology, nursing, chemistry, pharmacy, and many other professions. (prerequisite: Algebra, Biology, General Science)

PHYSICS - 1 Year

Physics is the study of the basic laws of how the universe works. Students learn the basic laws of motion, gravity, momentum, work, heat, light, electricity and nuclear changes. Strategies in lecture, problem solving, and laboratory work. Physics lab takes up a bigger portion of class time than chemistry. Because labs are longer, individual lab skills play an important role in student's success in physics class. Physics is a requirement for careers in engineering, lasers, optics, medical technology, electrician, medicine and many other degrees. It is also very useful for a person who is interested in mechanics.

HUMAN ANATOMY AND PHYSIOLOGY - SCIENCE V

Human anatomy and physiology is the study of the parts of the human body and how they function. Students learn different systems that are found in the body: the skeleton, muscles, digestive, nervous, circulatory, endocrine, respiratory, urinary, and reproductive systems. Lab work includes dissection work on animal parts for some systems. Lab work also includes many labeled diagrams of the different anatomical parts. This class is very helpful to first year college zoology students and second year anatomy students. Human anatomy and physiology would be useful in careers as a nurse, doctor, physical therapist, trainer, medical technologist, coach, physical education instructor, and many others. (prerequisites: course taken on instructor's approval; chemistry; biology; general science.)