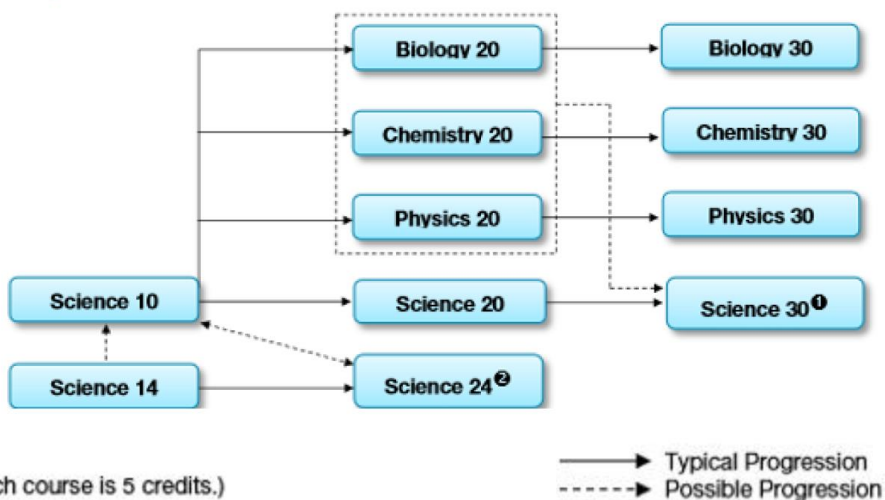


Science Grades 10-12

Science Program



Science 10 (5 Credits)

Provided Resources: Addison Wesley Science 10

What happened to that energy? Science 10 students are introduced to the biological, chemical, physical and Earth sciences. By studying chemical reactions, cellular and multicellular processes that occur in plants, the conservation and conversion of energy, and Earth's climate, they discover how energy is transformed.

Alberta Education Program of Studies for Science 10 can be found at:
https://education.alberta.ca/media/3069384/pos_science_10.pdf

Science 20 (5 Credits)

Provided Resources: Science 20

What changes do we see on Earth? Students in Science 20 extend their study of the biological, chemical, physical and Earth sciences and apply their knowledge to real-life problems. They investigate Newton's laws of motion, the properties of hydrocarbons and the chemistry of solutions. They examine evidence of how Earth's surface, climate and life forms have changed and continue to change and cycle in response to natural and human actions.

Alberta Education Program of Studies for Science 20 can be found at:
https://education.alberta.ca/media/3069385/pos_science_20_30.pdf

Science

Grades 10-12

Biology 20 (5 Credits)

Provided Resources: Inquiry into Biology

How and why does energy flow through living systems? Biology 20 students examine the interactions of living systems to better understand the constant flow of energy and the cycling of matter. Specifically, students explore the functioning of the human body and the mechanisms that work to maintain balance in organisms—in ecosystems and in the biosphere.

Alberta Education Program of Studies for Biology 20 can be found at:
https://education.alberta.ca/media/3069386/pos_bio_20_30.pdf

Chemistry 20 (5 Credits)

Provided Resources: Inquiry into Chemistry, SNAP Chemistry 20

How do atoms combine to form different substances? Students explore matter and how it changes in order to understand the natural world. They investigate the chemical properties of solutions, and they apply their understanding of chemical bonds to explain ionic and molecular compounds. Chemistry 20 students explain the behaviour of gases, using the gas laws, and also work to balance chemical equations.

Alberta Education Program of Studies for Chemistry 20 can be found at:
https://education.alberta.ca/media/3069388/pos_chem_20_30.pdf

Physics 20 (5 Credits)

Provided Resources: Pearson Physics, SNAP Physics 20

How does a lacrosse player know when to release the ball? Physics 20 students investigate the motion of objects. They apply Newton's law of universal gravitation to astronomical observations. They also describe how energy is transmitted by mechanical waves and how waves relate to medical technologies, industry and musical instruments.

Alberta Education Program of Studies for Physics 20 can be found at:
https://education.alberta.ca/media/3069387/pos_phys_20_30.pdf