

Why Science?

A background in science is important because it helps develop problem solving and critical thinking skills you will need in almost all aspects of life. A science background helps you ask the right questions. In an age where environmental issues and technology are in the news making informed decisions is important. Although a strong math background is not needed for all science careers, it really helps.

Not everybody with a science background becomes a teacher or professor. In fact most careers in science are NOT academic. Most careers needing a science background involve 2 or more sciences. For example, careers in the health care profession require a background in biology chemistry and physics. Check with your science teacher, school or university counsellor for the requirements in your desired career.

Science Program

In grades 9 and 10 you will choose the science 10F and 20F courses. Upon entering your grade 11 year, you will have to start making choices between taking one subject area or two or more. In grade 11 you have 4 science courses to choose from: Biology 30S, Chemistry 30S, Physics 30S and Topics in Science 30S. In St. James-Assiniboia school division, a graduation requirement is the completion of at least one grade 11 science. At the grade 12 level you have the same courses to choose from.

Your career plans should influence the courses you select, but it is always a good idea to choose at least two science areas to keep as many career options open.

Advanced Placement[®] Science

John Taylor offers Advanced Placement[®] (AP) Biology, Chemistry and Physics. If you choose to enter the Advanced Placement[®] program, you must decide in grade 10 and choose Science 20FH. The Science 20FH course covers some AP topics in all three sciences in preparation for the grade 11 courses. Students may take the Biology 32SAP in the second semester of your grade 10 year or in your grade 11 year. In grade 11 you may take Chemistry 32SAP and/or Physics 32SAP. If you choose Biology 32SAP in grade 10 you can take Biology 42SAP in your grade 11 year and take the AP exam in May. In Grade 12 you will take Chemistry 42SAP and/or Physics 42SAP then take the AP exam in May.

Although it is not necessary, students should have a strong mathematics background if they choose Advanced Placement[®] science courses.

Science Activities

Science courses involve laboratory activities, field trips and special speakers. This year, our Topics in Science 30S students studied malaria and were involved with various fundraising activities to raise money for UNICEF to provide mosquito nets to prevent malaria.

Students compete in the annual Spaghetti Bridge building contest held by the Association of Professional Engineers and Geoscientists of Manitoba. John Taylor students have traditionally done very well at this competition. JT students have won the competition the last 2 years and have received best in age group awards.

A tradition in JT physics are the annual Mousetrap car and Catapult contests. In grade 11 students build a car using a mouse trap as the only source of propulsion. In grade 12 students construct a catapult that competes against other students' catapults for distance and accuracy.

Other activities students can participate in are science fair, balloon car building, Manitoba Schools Science Symposium, and several science contests.