

# CURRICULUM ALIGNMENT – From the Outside In: Biological Effects of Radiation

## Saskatchewan

Grade	Course Name and Number	Unit/Module	Specific Outcome
12	Physics 30	Core Unit IV: Nuclear Physics A: Natural Radioactivity	<b>Foundational Objective:</b> Recognize the potential danger of exposure to tissue and genetic material from radiation.
12	Physics 30	Core Unit IV: Nuclear Physics A: Natural Radioactivity	<b>Learning Outcome 9:</b> Identify the composition of alpha particles, beta particles and gamma rays.
12	Physics 30	Core Unit IV: Nuclear Physics A: Natural Radioactivity	<b>Learning Outcome 10:</b> Compare the penetrating power, speed, potential danger, and other important characteristics of alpha particles, beta particles and gamma rays.
12	Physics 30	Core Unit IV: Nuclear Physics A: Natural Radioactivity	<b>Learning Outcome 19:</b> Recognize that absorbed radiation has different effects on different kinds of tissue.
12	Physics 30	Core Unit IV: Nuclear Physics A: Natural Radioactivity	<b>Learning Outcome 20:</b> Recognize that there is disagreement among scientists on the cumulative effects of low dosage exposure to radiation.
12	Physics 30	Core Unit IV: Nuclear Physics A: Natural Radioactivity	<b>Learning Outcome 21:</b> Understand that no exposure to radioactive emissions, for any period of time, should be regarded as being "safe" to humans or other living organisms.
12	Physics 30	Core Unit IV: Nuclear Physics A: Natural Radioactivity	<b>Common Essential Learning:</b> Use a wide range of possibilities for developing their knowledge of the major concepts within physics.
12	Biology 30	Unit 3 Genetics	<b>Learning Objective 2.6:</b> Describe the causes and effects of both chromosome and gene mutations.
12	Biology 30	Unit 3 Genetics	<b>Common Essential Learning:</b> To enable students to understand and use the vocabulary, structure and forms of expression which characterize the study of biology.