

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

Alberta

Grade	Course Name and Number	Unit	Specific Outcome
11	Science 24	Unit C: Disease Defence and Human Health (Social and Environmental Emphasis)	Specific Outcome 4.6: Investigate the effect of mutagens and radiation on genes and chromosomes and the implications for inheritance of genetic disorders.
11	Science 24	Unit C: Disease Defence and Human Health (Social and Environmental Emphasis)	Specific Outcome 4.8: Investigate factors that affect gene expression.
11	Science 24	Unit C: Disease Defence and Human Health (Social and Environmental Emphasis)	Skill Outcome (Performing and Recording): Compile and organize data, using appropriate formats and data treatments to facilitate interpretation.
11	Science 24	Unit C: Disease Defence and Human Health (Social and Environmental Emphasis)	Skill Outcome (Performing and Recording): Use library and electronic research tools to collect information on a given topic.
11	Science 24	Unit C: Disease Defence and Human Health (Social and Environmental Emphasis)	Skill Outcome (Performing and Recording): Select and integrate information from various print and electronic sources.
11	Science 24	Unit C: Disease Defence and Human Health (Social and Environmental Emphasis)	Skill Outcome (Analyzing and Interpreting): Compile and display evidence and information, by hand or by computer, in a variety of formats, including diagrams, flow charts, tables, graphs and scatterplots.
11	Science 24	Unit C: Disease Defence and Human Health (Social and Environmental Emphasis)	Skill Outcome (Communication and Teamwork): Select and use appropriate numeric, symbolic, graphical and linguistic modes of representation to communicate ideas, plans and results.
11	Science 24	Unit C: Disease Defence and Human Health (Social and Environmental Emphasis)	Attitude Outcome (Scientific Inquiry): Seek and apply evidence when evaluating alternative approaches to investigations, problems and issues.
11	Science 24	Unit C: Disease Defence and Human Health (Social and Environmental Emphasis)	Attitude Outcome (Collaboration): Work collaboratively in carrying out investigations and in generating and evaluating ideas.

12	Biology 30	Unit C: Cell Division, Genetics and Molecular Biology	Specific Outcome 30–C3.6k: Explain how a random change (mutation) in the sequence of bases results in abnormalities or provides a source of genetic variability.
12	Biology 30	Unit C: Cell Division, Genetics and Molecular Biology	Specific Outcome 30–C3.4s: Work collaboratively in addressing problems and apply the skills and conventions of science in communicating information and ideas and in assessing results.
12	Physics 30	Unit D: Atomic Physics	Specific Outcome 30–D3.1k: Describe the nature and properties, including the biological effects, of alpha, beta and gamma radiation.
12	Physics 30	Unit D: Atomic Physics	Specific Outcome 30–D3.4s: Work collaboratively in addressing problems and apply the skills and conventions of science in communicating information and ideas and in assessing results.