

CURRICULUM ALIGNMENT – Fission vs. Fusion

Alberta

Grade	Course Name and Number	Unit	Outcome
12	Science 30	Unit D: Energy and the Environment	Specific Outcome 30–D2.5k: Explain the difference between fission and fusion and balance simple nuclear reaction equations to show the conservation of nucleons; e.g. $\left({}^1_0\text{n} + {}^{235}_{92}\text{U} \rightarrow {}^{141}_{56}\text{Ba} + {}^{92}_{36}\text{Kr} + 3 {}^1_0\text{n}; {}^2_1\text{H} + {}^2_1\text{H} \rightarrow {}^3_2\text{He} + {}^1_0\text{n} \right)$
12	Science 30	Unit D: Energy and the Environment	Specific Outcome 30–D2.4s: 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	General Outcome 3: Students will describe nuclear fission and fusion as powerful energy sources in nature.
12	Physics 30	Unit D: Atomic Physics	Specific Outcome 30–D3.5k: Compare and contrast the characteristics of fission and fusion reactions.
12	Physics 30	Unit D: Atomic Physics	Specific Outcome 30–D1.4s: Work collaboratively in addressing problems and apply the skills and conventions of science in communicating information and ideas and in assessing results.