

GRADE 9-12 CURRICULUM CONNECTIONS

Gr	GEOGRAPHY	MATHEMATICS	SCIENCE	
9	Region & bioregion Global/local natural systems Natural/human systems Urban/rural environments Ecozones Natural resources Ecological footprint International global concerns	Mental math Percents and ratios Inferences Linear relations Ratio & proportion Scale diagrams Trigonometric ratios Height	Integers Sampling Tables of values/graphs Data collection/analysis/organizations Interpolation/extrapolation Acute/tangent of angles Measurement (sides/angles) Tables Linear functions	Carbon/oxygen cycles Ecosystem Resources Photosynthesis /cellular respiration Biotic/biotic Canadian initiatives/ecosystems Sustainability
10				
11	Earth spheres Location & local region Natural system & change Human actions/environment Deforestation, fossil fuel burning, carbon cycle Climate/soil/vegetation/population patterns Mechanisms of change Field studies Ecosystems Ecological footprints Ecological footprint Ecological footprint Ecological footprint	Problem solving Graphing technology Trigonometry (right angles) Tables and graphs Symbols and visuals Sampling techniques Data collection Spreadsheets	<i>Biology 11: Succession</i> Role of plants Plant characteristics Sampling procedures Structure/physiology of leaf, stem, tissues, roots <i>Plant classification</i> Biodiversity/survival Principles of taxonomy Sustainability Chemistry 11: Hydrocarbons as fuels	
12	Place Ecosystems Earth spheres Resources/sustainability Global resource patterns Alternative solutions Canada/International cooperation Urbanization & growth Climate change Role of plants Natural habitats Biodiversity Probable/desirable futures Human changes/natural systems		<i>Biology 12</i> Population characteristics Population growth Ecosystems Human population growth and the environment	
Gr	INQUIRY/RESEARCH/COMMUNICATION SKILLS	MATHEMATICS INVESTIGATION SKILLS	SCIENTIFIC INVESTIGATION SKILLS	
9-12	Demo technologies used in geographic inquiries Demo methods to collect, organize, manipulate, & interpret geographic data Use geographic terms Develop/use questions to define geographic issues Locate & use primary sources Use graphic organizers to interpret geographic info Determine if questions were answered or addressed Provide evidence to support conclusions & opinions Select/use appropriate methods for data display Collect/synthesize info Select/use technology to represent geographic info Create/use photos, charts, models, & diagrams Use different maps to interpret info Use cartographic conventions constructing maps. Use statistical methods effectively when analyzing	Pose a problem and hypothesis Demo principles of sampling & apply to investigations Collect data, use appropriate equipment & technology Organize/analyze/summarize data using appropriate techniques & technologies Construct tables of values, graphs to represent linear relations from realistic situations Describe trends & relationships observed in data, making inferences from the data Draw appropriate conclusions about questions or issues on the basis of the interpretation of graphs Solve/pose problems related to an experiment using findings of the investigation Communicate & report the findings & solutions of investigations in a clear & concise manner, using appropriate mathematical language & forms	Select/use appropriate apparatus/instruments effectively & accurately in collecting data Demonstrate plan/carry out investigations using lab equipment safely, effectively, & accurately Select/use appropriate numeric, symbolic, graphical, & linguistic modes to communicate scientific ideas/results Locate/select/analyze/integrate info, working in a team or independently using appropriate library & electronic research tools, including Internet Compile/organize/interpret data, using appropriate tables, flow charts, graphs, & diagrams Communicate procedures/results/research for specific purposes using data tables & laboratory reports Express the results of any calculation involving experimental data to the appropriate number of decimal places or significant figures	