Science Curriculum Links

CONSERVATION IN ACTION:
An Educator's Guide to Species at Risk in BC for Grades 8 - 12

Prepared by
Kelly Nordin & DG Blair
January 2016

Overview of Module One: An Introduction to Species at Risk

ACTIVITY 1: What Do You Know About SAR? Intro to Species at Risk

An interactive activity that begins with a series of true/false statements to introduce the concepts associated with species at risk of potential extinction, followed by a group analysis of a case example.

ACTIVITY 2: What Species are at Risk in Your Community?

After a classroom-based introduction to the rationale and methods of field investigation of species at risk, a field trip to a local ecosystem introduces students to species at risk, their habitat and the historical geography of the area.

ACTIVITY 3: Species at Risk in the News

Working in small groups, students complete a project-based learning activity to research and produce a student magazine or other media to inform and take action on local species at risk.

KEY:

✓ = general link

✓ = direct link

* = see Elaborations on BC Ed new curriculum websites

Subject: Science 10

Big Ideas	Learning Standard: Content	Activity			Learning Standard: Curricular Competencies	Activity		
		1	2	3		1	2	3
Genes are the foundation for the diversity of living things.	Mechanisms for the diversity of life: natural and artificial selection	✓	✓	✓	**Questioning and predicting**			
	Applications of genetics and ethical considerations	✓	✓	✓	Demonstrate a sustained intellectual curiosity about a scientific topic or problem of personal interest	✓	✓	✓
					Make observations aimed at identifying their own questions, including increasingly abstract ones, about the natural world	✓	✓	✓
Energy is conserved and its transformation can affect living things and the environment.	Local and global impacts of energy transformations from technologies	✓	✓	✓	Formulate multiple hypotheses and predict multiple outcomes		✓	✓
					Planning and conducting			
					Collaboratively and individually plan, select, and use appropriate investigation methods, including field work and lab experiments, to collect reliable data (qualitative and quantitative)		✓	
					Assess risks and address ethical, cultural, and/or environmental issues associated with their proposed methods and those of others		✓	✓
					Select and use appropriate equipment, including digital technologies, to systematically and accurately collect and record data		✓	
					Ensure that saftey and ehtical guidelines are followed in their investigations		✓	✓
					Processing and analyzing data and information			
					Experience and interpret the local environment		✓	✓
					Apply First Peoples perspectives and knowledge, other ways of knowing, and local knowledge as sources of information		✓	✓
					Seek and analyze patterns, trends, and connections in data, including describing relationships between variables (dependent and independent) and identifying inconsistencies		✓	✓
					Construct, analyze, and interpret graphs (including interpolation and extrapolation), models, and/or diagrams		✓	✓
					Use knowledge of scientific concepts to draw conclusions that are consistent with evidence	✓	✓	✓
					Analyze cause-and-effect relationships	✓	✓	✓

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Big Ideas	Learning Standard: Content	Activity			Learning Standard: Curricular Competencies	Activity		
		1	2	3		1	2	3
					Evaluating			
					Evaluate their methods and experimental conditions, including identifying sources of error or uncertainty, confounding variables, and possible alternative explanations and conclusions		✓	
					Describe specific ways to improve their investigation methods and the quality of the data		✓	
					Evaluate the validity and limitations of a model or analogy in relation to the phenomenon modelled			
					Demonstrate an awareness of assumptions, question information given, and identify bias in their own work and secondary sources	✓	✓	✓
					Consider the changes in knowledge over time as tools and technologies have developed			
					Connect scientific explorations to careers in science			
					Exercise a healthy, informed skepticism and use scientific knowledge and findings to form their own investigations and to evaluate claims in secondary sources	✓	✓	✓
					Consider social, ethical, and environmental implications of the findings from their own and others' investigations	✓	✓	✓
					Critically analyze the validity of information in secondary sources and evaluate the approaches used to solve problems	✓	✓	✓
					Applying and innovating			
					Contribute to care for self, others, community, and world through personal or collaborative approaches		✓	✓
					Transfer and apply learning to new situations		✓	✓
					Generate and introduce new or refined ideas when problem solving			✓
					Contribute to finding solutions to problems at a local and/or global level through inquiry		✓	✓
					Consider the role of scientists in innovation			
					Communicating			
					Formulate physical or mental theoretical models to describe a phenomenon			
					Communicate scientific ideas, claims, information, and perhaps a suggested course of action, for a specific purpose and audience, constructing evidence-based arguments and using appropriate scientific language, conventions, and representations		✓	✓
					Express and reflect on a variety of experiences, perspectives, and worldviews through place			✓