

WHALES WORKSHOP - ACTIVITY SPECIFIC CURRICULAR LINKS: BRITISH COLUMBIA

Course / Grade	B.C. Curriculum Type	B.C. Curriculum Link	Program Link	Pre-1. Whales Pre-Lesson & Mind Map	Main-1. Whales: Ocean Guardians Presentation	Activity 1. Whale Identification	Activity 2. Whale Songs	Activity 3. Whale Pump Board Game	Post-1. Reflection, Call to Action & Post-Mind Map
Science 8	Big Idea	Life processes are performed at the cellular level.	Characteristics of life, whale anatomy, adaptations, life cycles, species identification	x	x	x	x		x
	Content	Characteristics of life	Cetacean characteristics, anatomy, adaptations, species identification	x	x	x	x		x
		Photosynthesis and cellular respiration	Whale pump, nutrient cycling, phytoplankton productivity		x			x	x
Social Studies 8	Content	Changes in population and living standards, including environmental impact through resource and land usage	Commercial whaling, vessel traffic, unsustainable fishing, pollution, climate change	x	x			x	x
		Exploration, expansion, and colonization in the Americas	Indigenous whaling practices, commercial whaling history, human-whale relationships	x	x				x
Science 9	Big Idea	The biosphere, geosphere, hydrosphere, and atmosphere are interconnected as matter cycles and energy flows through them.	Whale pump, nutrient cycling, ecosystem services, ocean food webs	x	x			x	x
	Content	Matter cycles within biotic and abiotic components of ecosystems	Whale pump activity, nutrient cycling, ocean food webs		x			x	x
		Sustainability of systems	Ecosystem services, carbon capture, biodiversity support		x	x			x
		First Peoples knowledge of interconnectedness and sustainability	Intergenerational knowledge, Indigenous stewardship principles, connections to whales and ecosystems	x	x				x

		Perspectives different groups have on the use of natural resources	Conservation perspectives, Indigenous knowledge, human impacts on whales	x	x			x	x
Science 10	Big Idea	DNA is the basis for the diversity of living things.	Whale diversity, toothed vs. baleen whales, feeding adaptations	x	x	x			x
	Content	Mechanisms for the diversity of life	Toothed vs. baleen whales, whale diversity, feeding adaptations	x	x	x			x
	Big Idea	Energy is conserved, and its transformation can affect living things and the environment.	Whale pump, whale fall, toothed vs baleen whales		x		x		x
	Content	Local and global impacts of energy transformations from technologies	Vessel traffic, fishing technologies, human impacts on whale migration		x		x		x
	Big Idea	Chemical processes require energy change as atoms are rearranged.	Nutrient cycling, carbon storage, ocean productivity		x			x	x
	Content	Practical applications and implications of chemical processes	Nutrient cycling, carbon storage, ocean productivity		x			x	x
Social Studies 10	Content	Environmental, political, and economic policies	Whaling regulations, marine protected areas, High Seas Treaty, conservation advocacy		x				x
Career-Life Education 10	Content	Value of volunteerism for self and community	Community advocacy, Whale Report app, youth action opportunities	x	x			x	x
		Career-life development research	Whale researcher role-play, marine science careers, conservation careers	x	x	x	x	x	x
Earth Sciences 11	Big Idea	The transfer of energy through the atmosphere creates weather, and this transfer is affected by climate change.	Carbon capture, ocean-climate connections, whale ecosystem services		x			x	x

	Content	Influences of large bodies of water on local and global climates	Carbon capture, ocean-climate connections, whale ecosystem services		x			x	x
Environmental Science 11	Big Idea	Complex roles and relationships contribute to diversity of ecosystems.	Food webs, whale ecosystem services, species interactions	x	x	x	x	x	x
		Changing ecosystems are maintained by natural processes.	Whale migration, nutrient redistribution, ecosystem balance		x			x	x
		Human practices affect the sustainability of ecosystems.	Whaling, vessel strikes, entanglement, habitat degradation	x	x		x	x	x
		Humans can play a role in stewardship and restoration of ecosystems.	Stewardship principles, sustainable seafood, conservation actions	x	x			x	x
Social Studies 11	Big Idea	A society's laws and legal framework affect many aspects of people's daily lives.	Species protection laws, marine protected areas, conservation policy		x			x	
Career-Life Connections 11	Content	Self-assessment to achieve goals that advance preferred career-life futures	Whale researcher role-play, marine science careers, conservation careers	x	x	x	x	x	x
Environmental Science 12	Big Idea	Human actions affect the quality of water and its ability to sustain life.	Pollution, climate change, sustainable fishing	x	x			x	x
		Human activities cause changes in the global climate system.	Coastal development, shipping, fishing, pollution	x	x			x	x
		Sustainable land use is essential to meet the needs of a growing population.	Indigenous stewardship, sustainable choices, community action	x	x				x
		Living sustainably supports the well-being of self, community, and Earth.	Indigenous stewardship, sustainable choices, community action	x	x			x	x

Specialized Science 12	Big Idea	Biodiversity is dependent on complex interactions and processes between biotic and abiotic factors.	Whale ecosystem services, food webs, ocean productivity	x	x	x	x	x	x
		Climate change impacts biodiversity and ecosystem health.	Habitat degradation, changes to migration routes, ecosystem resilience	x	x		x	x	x
BC First Peoples 12	Content	Impact of historical exchanges of ideas, practices, and materials among local B.C. First Peoples and non-Indigenous peoples	Indigenous knowledge holders, intergenerational knowledge, contemporary conservation	x	x				x
Physical Geography 12	Big Idea	Natural processes have an impact on the landscape and human settlement.	Whale migration routes, ocean ecosystems, coastal communities		x			x	x
		Interactions between human activities and the atmosphere affect local and global weather and climate.	Carbon sequestration, climate change impacts, ocean-climate connections		x			x	x
Human Geography 12	Big Idea	Human activities alter landscapes in a variety of ways.	Coastal development, shipping, fishing, pollution	x	x			x	x
Career-Life Connections 12	Content	Self-assessment to achieve goals that advance preferred career-life futures	Whale researcher role-play, marine science careers, conservation careers	x	x	x	x	x	x