

4D Theatre: Big Picture Conservation Learning Outcomes

These programs support the Prescribed Learning Outcomes of the B.C. Ministry of Education's new Integrated Resource Packages (IRPs) and the Aquarium's conservation mission.

Kindergarten

- Plants and animals have observable features (*Science: Big Ideas*)
- Demonstrate curiosity and a sense of wonder about the world (*Science: Curricular Competencies*)
- Observe objects and events in familiar contexts (*Science: Curricular Competencies*)
- Basic needs of plants and animals (*Science: Content*)

Grade 1

- Living things have features and behaviours that help them survive (*Science: Big Ideas*)
- Demonstrate curiosity and a sense of wonder about the world (*Science: Curricular Competencies*)
- Observe objects and events in familiar contexts (*Science: Curricular Competencies*)
- Consider some consequences of their actions on the environment (*Science: Curricular Competencies*)
- Structural features of living things in the local environment (*Science: Concepts and Content*)
- Behavioural adaptations of animals in their area (*Science: Concepts and Content*)

Grade 2

- Living things have life cycles adapted to their environment (*Science: Big Ideas*)
- Demonstrate curiosity and a sense of wonder about the world (*Science: Curricular Competencies*)
- Observe objects and events in familiar contexts (*Science: Curricular Competencies*)
- Consider some consequences of their actions on the environment (*Science: Curricular Competencies*)
- Local actions have global consequences, and global actions have local consequences (*Social Studies: Big Ideas*)

Grade 3

- Classification organizes diverse organisms into groups based on their characteristics (*Science: Big Ideas*)
- Demonstrate curiosity about the natural world (*Science: Curricular Competencies*)
- Observe objects and events in familiar contexts (*Science: Curricular Competencies*)

- Identify some simple implications of their and others' actions on the environment (*Science: Curricular Competencies*)
- Make a value judgment about an event, decision, or action in their lives (ethical judgment) (*Social Studies: Curricular Competencies*)

Grade 4

- All living things sense and respond to their environment (*Science: Big Ideas*)
- Demonstrate curiosity about the natural world (*Science: Curricular Competencies*)
- Observe objects and events in familiar contexts (*Science: Curricular Competencies*)
- Identify some simple environmental implications of their and others' actions (*Science: Curricular Competencies*)

Grade 5

- Multi-cellular organisms have organ systems that enable them to survive and reproduce (*Science: Big Ideas*)
- Make observations in familiar or unfamiliar contexts (*Science: Curricular Competencies*)
- Demonstrate an openness to new ideas and consideration of alternatives (*Science: Curricular Competencies*)
- Express and reflect on personal, shared, or others' experiences of place (*Science: Curricular Competencies*)
- The nature of sustainable practices around BC's living and non-living resources (*Science: Curricular Competencies*)
- To care for self, others, and community through personal or collaborative approaches (*Science: Curricular Competencies*)

Grade 6

- Multicellular organisms rely on internal systems to survive and interact with their environment (*Science: Big Ideas*)
- Make observations in familiar or unfamiliar contexts (*Science: Curricular Competencies*)
- Demonstrate an openness to new ideas and consideration of alternatives (*Science: Curricular Competencies*)
- Express and reflect on personal, shared, or others' experiences of place (*Science: Curricular Competencies*)
- Contribute to care for self, others, and community through personal or collaborative approaches (*Science: Curricular Competencies*)

Grade 7

- Demonstrate a sustained intellectual curiosity about a scientific topic or problem of personal interest (*Science: Curricular Competencies*)
- Use scientific understandings to identify relationships and draw conclusions (*Science: Curricular Competencies*)
- Express and reflect on a variety of experiences and perspectives of place (*Science: Curricular Competencies*)
- Consider social, ethical, and environmental implications of the findings from their own and others' investigations (*Science: Curricular Competencies*)
- Survival needs of organisms (*Science: Content*)

Grade 8

- Demonstrate a sustained intellectual curiosity about a scientific topic or problem of personal interest (*Science: Curricular Competencies*)
- Express and reflect on a variety of experiences and perspectives of place (*Science: Curricular Competencies*)
- Consider social, ethical, and environmental implications of the findings from their own and others' investigations (*Science: Curricular Competencies*)
- Contribute to care for self, others, and community through personal or collaborative approaches (*Science: Curricular Competencies*)
- Characteristics of life (*Science: Content*)

Grade 9

- The biosphere, geosphere, hydrosphere, and atmosphere are interconnected, as matter cycles and energy flows through them (*Science: Big Ideas*)
- Demonstrate a sustained intellectual curiosity about a scientific topic or problem of personal interest (*Science: Curricular Competencies*)
- Consider social, ethical, and environmental implications of the findings from their own and others' investigations (*Science: Curricular Competencies*)
- Connect scientific explorations to careers in science (*Science: Curricular Competencies*)
- Contribute to care for self, others, and community through personal or collaborative approaches (*Science: Curricular Competencies*)
- matter cycles within biotic and abiotic components of ecosystems (*Science: Content*)

Grade 10

- Demonstrate a sustained intellectual curiosity about a scientific topic or problem of personal interest (*Science: Curricular Competencies*)

- Make observations aimed at identifying their own questions, including increasingly abstract ones, about the natural world (*Science: Curricular Competencies*)
- Use knowledge of scientific concepts to draw conclusions that are consistent with evidence (*Science: Curricular Competencies*)
- Contribute to care for self, others, community, and world through individual or collaborative approaches (*Science: Curricular Competencies*)
- Contribute to finding solutions to problems at a local and/or global level through inquiry (*Science: Curricular Competencies*)
- Express and reflect on a variety of experiences, perspectives, and worldviews through place (*Science: Curricular Competencies*)

Grade 11

- Living things are interdependent (*Biology: Big Ideas*)
- Demonstrate a sustained intellectual curiosity about a scientific topic or problem of personal interest (*Biology: Curricular Competencies*)
- Make observations aimed at identifying their own questions, including increasingly abstract ones, about the natural world (*Biology: Curricular Competencies*)
- Contribute to care for self, others, community, and world through individual or collaborative approaches (*Biology: Curricular Competencies*)
- The survival of all living things on earth is dependent on biodiversity (*Environmental Science: Big Ideas*)
- Analyze Cause-and-effect relationships (*Environmental Science: Curricular Competencies*)
- Analyze the impact of human activity on ecosystems, and assess the effectiveness of selected initiatives related to environmental sustainability (*Environmental Science: Curricular Competencies*)
- Analyze how our thinking, choices, and behaviours affect ecosystems, now and in the future (*Environmental Science: Curricular Competencies*)
- Infer the effects of natural phenomena and human activities that either contribute to or challenge an ecologically sustainable environment (*Environmental Science: Curricular Competencies*)
- Analyze how our thinking choices, and behaviours affect ecosystems, now and in the future (*Environmental Science: Curricular Competencies*)
- Reflect on their personal beliefs to accommodate new knowledge and perspectives, and effectively communicate this understanding to others (*Environmental Science: Curricular Competencies*)

- Healthy and sustainable ecosystems; ecosystems functions and services; humans as agents of change on systems (*Environmental Science: Content*)

Grade 12

- Demonstrate a sustained intellectual curiosity about a scientific topic or problem of personal interest (Biology: Curricular Competencies)
- Contribute to care for self, others, community, and world through individual or collaborative approaches (*Science: Curricular Competencies*)
- Healthy systems are interconnected, resilient, and adaptive (*Environmental Science: Big Ideas*)
- Healthy and sustainable global systems support life (*Environmental Science: Big Ideas*)
- Everyone has the ability to develop sustainable practices that impact a system, a community, and themselves (*Environmental Science: Big Ideas*)
- Examine how our connection to the environment is influenced by personal experiences and cultural understandings (*Environmental Science: Curricular Competencies*)
- Recognize hidden dimensions of a system to understand natural phenomena through patterns and interrelationships not seen on the surface (*Environmental Science: Curricular Competencies*)
- Assess the impacts of a local, regional, or global issue (*Environmental Science: Curricular Competencies*)
- Infer the effects of natural phenomena and human activities that either contribute to or challenge an ecologically sustainable environment (*Environmental Science: Curricular Competencies*)
- Create an action plan that addresses a specific environmental issue (*Environmental Science: Curricular Competencies*)
- Interconnectedness of global systems; energy; water; land; climate (*Environmental Science: Content*)
- Human and other influences on natural systems: evidence of change and sustainability; issues; long-term trends and future scenarios; environmental ethics and responsibility (*Environmental Science: Content*)
- Leadership, innovation, and action for sustainable systems and communities: personal, local or global choices and actions; sustainable practices communities; environmental and sustainable technologies; careers (*Environmental Science: Content*)