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*)

• 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)