British Columbia, Canada Science Standards

Grade 6: Earth Force hits all 3 Core Competencies: Communication, Thinking, Personal and Social

Relevant Curricular Competencies:
Questioning and predicting
• Demonstrate a sustained curiosity about a scientific topic or problem of personal interest
• Make observations in familiar or unfamiliar contexts
• Identify questions to answer or problems to solve through scientific inquiry
• Make predictions about the findings of their inquiry

Planning and conducting
• With support, plan appropriate investigations to answer their questions or solve problems they have identified
• Choose appropriate data to collect to answer their questions
• Observe, measure, and record data, using appropriate tools, including digital technologies
• Use equipment and materials safely, identifying potential risks

Processing and analyzing data and information
• Experience and interpret the local environment
• Identify First Peoples perspectives and knowledge as sources of information
• Construct and use a variety of methods, including tables, graphs, and digital technologies, as appropriate, to represent patterns or relationships in data
• Identify patterns and connections in data
• Compare data with predictions and develop explanations for results
• Demonstrate an openness to new ideas and consideration of alternatives

Evaluating
• Evaluate whether their investigations were fair tests
• Identify possible sources of error
• Suggest improvements to their investigation methods
• Identify some of the assumptions in secondary sources
• Demonstrate an understanding and appreciation of evidence
• Identify some of the social, ethical, and environmental implications of the findings from their own and others’ investigations

Applying and innovating
• Contribute to care for self, others, and community through personal or collaborative approaches
• Co-operatively design projects
• Transfer and apply learning to new situations
• Generate and introduce new or refined ideas when problem solving

Communicating
• Communicate ideas, explanations, and processes in a variety of ways
• Express and reflect on personal, shared, or others’ experiences of place
Grade 7: Earth Force hits all 3 Core Competencies: Communication, Thinking, Personal and Social

Relevant Curricular Competencies:
Questioning and predicting
- Demonstrate a sustained intellectual curiosity about a scientific topic or problem of personal interest
- Make observations aimed at identifying their own questions about the natural world
- Identify a question to answer or a problem to solve through scientific inquiry
- Formulate alternative “If...then...” hypotheses based on their questions
- Make predictions about the findings of their inquiry

Planning and conducting
- Collaboratively plan a range of investigation types, including field work and experiments, to answer their questions or solve problems they have identified
- Observe, measure, and record data (qualitative and quantitative), using equipment, including digital technologies, with accuracy and precision
- Use appropriate SI units and perform simple unit conversions
- Ensure that safety and ethical 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
- Construct and use a range of methods to represent patterns or relationships in data, including tables, graphs, keys, models, and digital technologies as appropriate
- Seek patterns and connections in data from their own investigations and secondary sources
- Use scientific understandings to identify relationships and draw conclusions

Evaluating
- Identify possible sources of error and suggest improvements to their investigation methods
- Demonstrate an awareness of assumptions and bias in their own work and secondary sources
- Demonstrate an understanding and appreciation of evidence (qualitative and quantitative)
- Exercise a healthy, informed skepticism and use scientific knowledge and findings from their own investigations to evaluate claims in secondary sources
- Consider social, ethical, and environmental implications of the findings from their own and others’ investigations

Applying and innovating
• Contribute to care for self, others, community, and world through personal or collaborative approaches
• Co-operatively design projects
• Transfer and apply learning to new situations
• Generate and introduce new or refined ideas when problem solving

Communicating
• Communicate ideas, findings, and solutions to problems, using scientific language, representations, and digital technologies as appropriate
• Express and reflect on a variety of experiences and perspectives of place
Grade 8: Earth Force hits all 3 Core Competencies: Communication, Thinking, Personal and Social

Relevant Curricular Competencies:
Questioning and predicting
• Demonstrate a sustained intellectual curiosity about a scientific topic or problem of personal interest
• Make observations aimed at identifying their own questions about the natural world
• Identify a question to answer or a problem to solve through scientific inquiry
• Formulate alternative “If…then...” hypotheses based on their questions
• Make predictions about the findings of their inquiry

Planning and conducting
• Collaboratively plan a range of investigation types, including field work and experiments, to answer their questions or solve problems they have identified
• Observe, measure, and record data (qualitative and quantitative), using equipment, including digital technologies, with accuracy and precision
• Use appropriate SI units and perform simple unit conversions
• Ensure that safety and ethical 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
• Construct and use a range of methods to represent patterns or relationships in data, including tables, graphs, keys, models, and digital technologies as appropriate
• Seek patterns and connections in data from their own investigations and secondary sources
• Use scientific understandings to identify relationships and draw conclusions

Evaluating
• Identify possible sources of error and suggest improvements to their investigation methods
• Demonstrate an awareness of assumptions and bias in their own work and secondary sources
• Demonstrate an understanding and appreciation of evidence (qualitative and quantitative)
• Exercise a healthy, informed skepticism and use scientific knowledge and findings from their own investigations to evaluate claims in secondary sources
• Consider social, ethical, and environmental implications of the findings from their own and others’ investigations

Applying and innovating
• Contribute to care for self, others, community, and world through personal or collaborative approaches
• Co-operatively design projects
• Transfer and apply learning to new situations
• Generate and introduce new or refined ideas when problem solving

Communicating
• Communicate ideas, findings, and solutions to problems, using scientific language, representations, and digital technologies as appropriate
• Express and reflect on a variety of experiences and perspectives of place