Cluster 1: Reproduction

S1-1 Describe the function and structure of the male and female reproductive systems.

S1-2 Investigate the role of hormones in reproduction.

S1-3 Investigate the mechanisms of reproduction—modes of asexual reproduction, the development of embryos, and the development of sexual embryos.

S1-4 Investigate the processes of cell division, fertilization, and embryo development.

Cluster 2: Atoms and Elements

S1-1 Describe the structure of atoms and the relationship between the number of protons, neutrons, and electrons.

S1-2 Identify the properties of atoms and the periodic table.

S1-3 Investigate the nature of matter and the role of atoms in chemical reactions.

Cluster 3: Nature of Electricity

S1-1 Investigate the nature of electric charge and the conservation of electric charge.

S1-2 Investigate the nature of electric current and the conservation of electric energy.

S1-3 Investigate the nature of electric potential and the conservation of electric potential energy.

Cluster 4: Exploring the Universe

S1-1 Investigate the nature of the universe and the evolution of the universe.

S1-2 Investigate the nature of the universe and the evolution of the universe.

S1-3 Investigate the nature of the universe and the evolution of the universe.

S1-4 Investigate the nature of the universe and the evolution of the universe.

S1-5 Investigate the nature of the universe and the evolution of the universe.

S1-6 Investigate the nature of the universe and the evolution of the universe.

S1-7 Investigate the nature of the universe and the evolution of the universe.

S1-8 Investigate the nature of the universe and the evolution of the universe.

S1-9 Investigate the nature of the universe and the evolution of the universe.
S1-0-1a Propose questions that could be addressed. GLO: C2 (ELA: S1: 3.1.1)
S1-0-2a Select and integrate information obtained from a variety of sources.
Include: print, electronic, specialists, other resource people. GLO: C2, C4, C5, C8
TFS: 1.3.2, 4.3.4
(ELA: S1: 3.1, 3.2, 3.3; Math: S1-B-1, 2)
S1-0-2b Evaluate the reliability, bias, and usefulness of information.
GLO: C2, C4, C5, C8
TFS: 2.2.2, 4.3.4
(ELA: S1: 3.2, 3.3, 3.3)
S1-0-6b Identify and suggest explanations for discrepancies in data.
GLO: C2
S1-0-2c Identify STSE issues and initiate research related to an STSE issue.
Include: labelled diagrams, graphs, multimedia.
GLO: C2, C4, C5
TFS: 2.2.1, 4.3.4
(ELA: S1: 3.2, 3.3, 3.3)
S1-0-2d Review effects of past decisions and various perspectives related to an STSE issue.
Examples: environmental, public, environmentalists’, and First Nations’ positions on hydroelectric development; religious, cultural, and medical views on a genetic screening...
GLO: C1, C2
TFS: 1.3.2, 4.3.4
(ELA: S1: 3.2, 3.3)
S1-0-9b Express interest in a broad scope of science- and technology-related fields and issues. GLO: B4
S1-0-9c Demonstrate confidence in their ability to carry out investigations in science and to address STSE issues. GLO: C2, C4, C5
S1-0-8c Describe examples of how scientific knowledge has evolved in light of new evidence, and the role of technology in this evolution. GLO: A2, A5
S1-0-8g Discuss social and environmental effects of past scientific and technological endeavours.
Include: major shifts in scientific world views, unintended consequences. GLO: B1
S1-0-3a State a testable hypothesis or prediction based on background information.
GLO: C1, C2
S1-0-4b Demonstrate work habits that ensure personal safety, the safety of others, as well as consideration for the environment.
Include: knowledge and use of relevant safety precautions, WHMIS regulations, emergency equipment.
GLO: B3, B5, C1, C2
S1-0-4c Interpret relevant WHMIS regulations.
Include: symbols, labels, Material Safety Data Sheets (MSDS).
GLO: C1, C2
S1-0-4d Use various methods for anticipating the impacts of different options, including cost-benefit analysis, full stakeholder input, environmental assessment, societal impacts, and ethical, cultural, and political perspectives.
GLO: C4, C5, C6
S1-0-4f Assume the responsibilities of various roles within a group and evaluate which roles are most appropriate for given tasks.
GLO: C2, C4, C7
(ELA: S1: 5.1.3, 5.2.2)
S1-0-4e Work cooperatively with group members to carry out a plan, and troubleshoot problems as they arise.
GLO: C2, C4, C7
(ELA: S1: 5.1.3, 5.2.2)
S1-0-9f Demonstrate personal involvement and be proactive with respect to STSE issues. GLO: B5, C4
S1-0-7e Reflect on prior knowledge and experiences to develop new understanding.
GLO: C2, C4, C7
(ELA: S1: 4.2.1)
S1-0-7d Reflect on process used to arrive at or to implement an STSE decision, and suggest improvements.
GLO: C4, C5
(ELA: S1: 5.2.4)
S1-0-7c Implement an STSE decision and evaluate its effects.
Examples: test run, partial implementation, simulation, debate...
GLO: C1, C2
S1-0-7b Select an appropriate STSE option and determine a course of action to implement an STSE decision.
GLO: B5, C4
S1-0-7a Draw a conclusion that explains the results of an investigation.
Include: cause and effect relationships, alternative explanations, supporting or rejecting the hypothesis or prediction.
GLO: C3, C5, C8
(ELA: S1: 3.3.4)
S1-0-6e Adjust STSE options as required once their potential effects become evident.
GLO: C3, C4, C5, C8
S1-0-6a Adjust STSE options as required once their effects become evident. GLO: C3, C4, C5
S1-0-4d Use various methods for troubleshooting problems as they arise.
GLO: C2, C4, C7
(ELA: S1: 5.1.3, 5.2.2)

GLO: C2, C3, C4, C5

Science Inquiry

STSE Issues

Scientific Inquiry

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