

Specific Learning Outcomes



Activities can be used in the progression shown or as stand-alone lessons. It is not necessary to use all the lessons or materials provided.

Note: Learning outcome connections listed in lessons are the closest match between the lesson content and the curriculum, but other connections can also be made as indicated in this chart.

Life Is a Gift—Correlation to Manitoba Grade 11 Biology Curriculum

	Lessons in <i>Life Is a Gift</i>	Organs and Tissues Available for Transplant	Liver Transplant	Giving the Breath of Life	Operation Heart Transplant	Kidney Dilemma	Organ Transplant Rejection	Organ Donation in Relation to Society
Unit 1: Wellness and Homeostasis	B11-1-03 Recognize how individual wellness choices affect others.	✓	✓		✓			
	B11-1-06 Identify life processes that individual cells, as well as complex organisms, need to manage.						✓	
	B11-1-07 Explain how cell membranes regulate movement of materials into and out of cells and recognize the importance of this regulation in managing life processes and maintaining homeostasis.						✓	
Unit 2: Digestion and Nutrition	B11-2-01 Identify major structures and functions of the human digestive system from a diagram, model, or specimen.	✓	✓					
	B11-2-07 Describe the homeostatic role of the liver with respect to the regulation of nutrient levels in the blood and nutrient storage.		✓					
	B11-2-011 Investigate and describe conditions/disorders that affect the digestive process.		✓					
	B11-2-12 Use the decision-making process to investigate an issue related to digestion and nutrition.		✓	✓				

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Unit 3: Transportation and Respiration	B11-3-01 Design and execute an experiment to investigate an aspect of the transportation or respiratory system.			✓				
	B11-3-02 Compare the characteristics of blood components in terms of appearance, origin, numbers, relative size, and function in the body.						✓	
	B11-3-03 Compare and contrast the characteristics of different blood groups.			✓				
	B11-3-04 Predict the physiological consequences of blood transfusions involving different blood groups.	✓		✓				
	B11-3-05 Describe the blood donation process and investigate related issues.	✓		✓				
	B11-3-08 Describe the cardiac cycle.					✓		
	B11-3-14 Identify major structures and functions of the human respiratory system from a diagram, model, or specimen.	✓		✓		✓		✓
	B11-3-15 Describe how breathing is controlled to help maintain homeostasis in the human body.				✓			
	B11-3-16 Investigate and describe conditions/disorders associated with transportation and/or respiration in the human body.				✓			

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Unit 4: Excretion and Waste Management	B11-4-02 Describe the roles of the major excretory structures in eliminating wastes and helping the body maintain homeostasis.					✓		
	B11-4-04 Identify structures of the human urinary system from a diagram, model, or specimen, and describe the function of each.	✓				✓		✓
	B11-4-05 Explain the processes of filtration, reabsorption, and secretion in the nephron.					✓		
	B11-4-07 Describe what types of information can be gained through urinalysis.	✓						✓
	B11-4-08 Investigate and describe issues related to kidney failure and treatment options available.	✓	✓				✓	
Unit 5: Protection and Control	B11-5-01 Describe the body's defence mechanisms for protection from foreign agents. Include: non-specific and specific defences		✓				✓	
	B11-5-02 Describe the body's response to allergens, vaccines, viruses/bacteria. Include: inflammatory response and immune response	✓		✓			✓	✓
	B11-5-04 Investigate issues related to the immune system and the protection of public health.	✓	✓	✓			✓	✓
	B11-6-03 Recognize the difficulties faced in defining "death" and identify some of the different definitions in use today.		✓			✓		✓
Unit 6: Wellness and Homeostatic Changes	B11-6-04 Identify and analyze social issues related to the process of dying.							✓
	B11-6-05 Describe how technology has allowed us to control our wellness, and describe the ethical dilemmas that use of technology can create.	✓			✓			✓

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Cluster 0 Biology: Skills and Attitudes	Demonstrating Understanding	B11-0-U1 Use appropriate strategies and skills to develop an understanding of biological concepts.	✓		✓	✓			
		B11-0-U2 Demonstrate an in-depth understanding of biological concepts.	✓	✓	✓	✓	✓	✓	
	Personal Perspectives/ Reflection	B11-0-P1 Demonstrate confidence in their ability to carry out investigations.			✓			✓	
		B11-0-P2 Demonstrate a willingness to reflect on personal wellness.			✓				
		B11-0-P3 Appreciate the impact of personal lifestyle choices on general health and make decisions that support a healthy lifestyle.			✓		✓		
Scientific Inquiry	B11-0-P4 Demonstrate an understanding of, and respect for, a diversity of cultural perspectives and approaches to maintaining health and treating illness.	✓		✓				✓	
	B11-0-S1 State a testable hypothesis or prediction based on background knowledge or on observed events.			✓					
	B11-0-S2 Plan an experiment to answer a specific scientific question. Include: materials, independent, dependent and controlled variables, methods, and safety considerations			✓					
	B11-0-S5 Demonstrate sensitivity toward, and respect for, living and non-living tissues, specimens, and organisms utilized for biological research.			✓				✓	

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Cluster 0 Biology: Skills and Attitudes	Scientific Inquiry (continued)	B11-0-S6 Make detailed observations and/or collect data; organize and display this information using an appropriate format. Include: biological drawings					✓		
		B11-0-S7 Evaluate the relevance, reliability, and adequacy of data and data collection methods. Include: discrepancies in data and sources of error		✓					
		B11-0-S8 Analyze data and/or observations in order to identify patterns or draw conclusions.		✓				✓	
	Decision Making	B11-0-D1 Identify and explore a current issue.	✓	✓			✓	✓	✓
		B11-0-D2 Evaluate implications of possible alternatives or positions related to an issue.	✓	✓			✓		✓
		B11-0-D3 Recognize that decisions reflect values and consider personal values and those of others when making a decision.	✓	✓			✓		✓
	B11-0-D4 Recommend an alternative or identify a position, and provide justification.		✓	✓		✓	✓		
	B11-0-D5 Propose a course of action related to an issue.			✓					
	B11-0-D6 Evaluate the process used by self or others to arrive at a decision.			✓					

Biology: Skills and Attitudes		Lessons in Life Is a Gift	Organs and Tissues Available for Transplant	Liver Transplant	Giving the Breath of Life	Operation Heart Transplant	Kidney Dilemma	Organ Transplant Rejection	Organ Donation in Relation to Society
Information Management and Communication	B11-0-11 Synthesize information obtained from a variety of sources. Include: print and electronic sources, resource people, personal observations	✓	✓				✓		✓
	B11-0-12 Evaluate the quality of sources of information, as well as the information itself.						✓		✓
	B11-0-13 Quote from or refer to sources as required, and reference sources according to accepted practice.						✓		
	B11-0-14 Communicate information in a variety of forms appropriate to the audience, purpose, and context.						✓		✓
Group Work	B11-0-G1 Collaborate with others to achieve group goals and responsibilities.	✓			✓		✓	✓	✓
	B11-0-G2 Elicit, clarify, and respond to questions, ideas, and diverse points of view in discussions.	✓			✓		✓		✓
	B11-0-G3 Evaluate individual and group processes used.				✓		✓		
Working in Science	B11-0-W1 Demonstrate a continuing, increasingly informed interest in biology and biology-related careers and issues.	✓						✓	✓
	B11-0-W2 Appreciate the contributions of scientists, including Canadians, to the field of human biology.	✓							✓

