ENGAGING SCIENCE • BC K–7 SCIENCE

Vancouver Aquarium – The Human Body: Nose to Toes

The Human Body: Nose to Toes complements the Kindergarten to Grade 7 Science curriculum in British Columbia. Prescribed learning outcomes (PLOs) from the Processes of Science (PSS), Life Science (LS), Physical Science (PS) and Earth and Space Science (ESS) curriculum organizers are matched below with the major activities presented in this Playbook and the associated Engaging Science hands-on workshop.

To support cross-curricular teaching, links to Math and Language Arts curriculum areas are also included.

PSS = Processes of Science
LS = Life Science

WO = **What Organ Is This**
BD = **Body Demos**
AR = **Animal Heart Rates**
FS = **Fun Stuff**
TS = **Tough to Swallow**
CO = **Is It Contagious**
TT = **Trash or Treasure**
AA = **The Air Around Us**

	LEARNING OUTCOMES	WO	BD	AR	FS	TS	CO	TT	AA
	Kindergarten								
PSS	Use the five senses to make observations	●	●	●	●	●	●	●	●
PSS	Share with others information obtained by observing	●	●	●	●	●	●	●	●
	Grade 1								
PSS	Communicate their observations, experiences, and thinking in a variety of ways	●	●	●	●	●	●	●	●
PSS	Classify objects, events, and organisms	●	●	●	●	●	●	●	●
LS	Classify living and non-living things						●		
	Grade 2								
PSS	Use their senses to interpret observations	●	●	●	●	●	●	●	●
PSS	Infer the probable outcome of an event or behaviour based on observations	●	●	●	●	●	●	●	●
	Grade 3								
PSS	Ask questions that foster investigations and explorations relevant to the content	●	●	●	●	●	●	●	●
PSS	Measure objects and events		●	●	●		●		
	Grade 4								
PSS	Make predictions, supported by reasons and relevant to the content		●	●	●	●	●	●	●
PSS	Use data from investigations to recognize patterns and relationships and reach conclusions		●	●	●	●	●	●	
LS	Determine how personal choices and actions have environmental consequences						●	●	●
	Grade 5								
LS	Describe the basic structure and functions of the human respiratory, digestive, circulatory, skeletal, muscular, and nervous systems	●	●	●	●	●	●		
LS	Explain how the different body systems are interconnected	●	●	●	●	●	●		

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	Grade 6								
LS	Demonstrate the appropriate use of tools to examine living things that cannot be seen with the naked eye						•		
LS	Distinguish between life forms as single or multi-celled organisms and belonging to one of five kingdoms: Plantae, Animalia, Monera, Protista, Fungi						•		
	Grade 7								
PSS	Create models that help to explain scientific concepts and hypotheses	•	•			•	•		
LS	Assess survival needs and interactions between organisms and the environment						•		
LS	Assess the requirements for sustaining healthy local ecosystems						•	•	•
LS	Evaluate human impacts on local ecosystems						•	•	•

ENGAGING SCIENCE • BC K–7 MATH

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NC = Number Concepts
NO = Number Operations
SS = Shape and Space (3D Objects and 2D Shapes)
SP = Statistics and Probability (Data Analysis)
SSm = Shape and Space (Measurement)
SSt = Shape and Space (Transformations)

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	Grades K–1								
SSm	Classify, describe and arrange objects using comparative language to compare length, size, area, weight and volume		●	●	●				
SSm	Select an appropriate non-standard unit to estimate, measure, record, compare, order objects and containers		●	●	●				
SS	Identify and describe specific two-dimensional shapes such as circles, squares, triangles or rectangles				●				
SSt	Identify and fit pieces of puzzles or shapes that go together (part to whole relationships)	●	●		●	●	●	●	●
SP	Collect first-hand information by counting objects, conducting surveys, measuring and performing simple experiments		●	●	●	●	●		●
	Grades 2–3								
SSm	Estimate, measure, record, compare and order objects and containers using non-standard and standard units		●	●	●		●		
SSm	Make connections among manipulatives, diagrams, spoken terms and written symbols	●	●	●	●	●	●	●	●
SP	Use a variety of methods to collect and record data, including measuring devices, printed resources and tallies		●	●	●		●		
SP	Sort and organize data by one or more attributes and by using graphic organizers such as lists and charts		●	●	●				
	Grade 4								
SSm	Estimate, measure, record, compare and order objects by length, height, perimeter and circumference using standard units (mm, cm, m, km)		●	●	●				
	Grade 5								
SSm	Recognize and explain the meaning of length, width, height, depth, thickness, perimeter and circumference		●	●	●				
SP	Identify a question to generate appropriate data and predict results				●	●	●		
SP	Use a variety of methods to collect and record data		●	●	●				

ENGAGING SCIENCE • BC K–7 LANGUAGE ARTS

Vancouver Aquarium – The Human Body: Nose to Toes

CR = Comprehend and Respond (Comprehension)
CIIc = Communicate Ideas and Information (Composing and Creating)
CIIp = Communicate Ideas and Information (Presenting and Valuing)

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	Grades K–1								
CR	Create simple charts, webs, or illustrations as a way of organizing information	●	●	●	●			●	
CIIc	Identify connections between ideas and information and their own experiences	●	●	●	●	●	●	●	●
CIIp	Demonstrate a willingness to participate in a variety of sharing activities that include the use of pictures, charts, storytelling, songs, lists, menus, and storybooks	●	●	●	●	●	●	●	●
	Grades 2–3								
CR	Predict, retell, and sequence events and ideas from selections they have read, heard, or viewed	●	●	●	●	●	●	●	●
CIIc	Sort, organize, and represent specific information	●	●	●	●	●	●	●	●
CIIp	Demonstrate a willingness to participate in a variety of shared activities that include reading and listening to stories and poems, dramatic play, and presenting their own work	●	●		●		●	●	
CIIp	Create a variety of personal communications, including charts, journals, lists, illustrations and stories	●		●	●		●	●	
	Grade 4								
CR	Organize information or ideas they have read, heard, or viewed in the form of simple charts, webs, or illustrations	●	●	●	●	●	●	●	●
CR	Identify the main information given in illustrations, maps, or charts	●	●	●	●	●	●	●	
CIIp	Create and present a variety of personal communications, including written and oral poems, stories, explanations, informal oral reports and dramas, personal letters, and illustrated charts or posters	●	●	●	●	●	●	●	●
	Grade 5								
CR	Use a variety of written and graphic forms, including charts, webs, and maps, to organize details and information	●		●	●	●	●	●	
CR	Describe information contained in simple and direct illustrations, maps, charts, or other graphic representations	●	●	●	●	●	●	●	●
CIIp	Create a variety of personal and informational communications, including written and oral stories, poems, or lyrics; explanations and descriptions; informal oral reports and dramatics; and brief factual reports	●	●	●	●	●	●	●	●

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	Grades 6								
CR	Organize details and information they have read, heard, or viewed using a variety of written and graphic forms, including charts, webs, and maps	•	•	•	•	•	•	•	•
CR	Describe information provided in simple and direct illustrations, maps, charts, or other graphic representations	•	•	•	•	•	•	•	•
CIIp	Create various personal and transactional communications, including real and invented narratives, poems or lyrics, summaries or retellings, descriptions, letters, informal oral presentations, charts, and posters	•	•	•	•	•	•	•	•
	Grade 7								
CR	Use information they have read, heard, or viewed in a variety of written or graphic forms, including written notes and charts	•	•	•	•	•	•	•	•
CR	Interpret details in simple and direct illustrations, maps, charts, and other graphic representations	•	•	•	•	•	•	•	•
CIIp	Create a variety of personal and informational communications, including fiction and non-fiction; written summaries, instructions and reports; oral and visual presentations; oral and written opinions; poems; or lyrics	•	•	•	•	•	•	•	•