

# ENGAGING SCIENCE • BC K–7 SCIENCE

## Vancouver Aquarium – Survivor: Outgrow, Outrun, Outlive

*Survivor: Outgrow, Outrun, Outlive* 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

AL = Is It Alive?  
AC = That Animal Can Do That?  
BU = Build an Animal  
SH = Smells Like Home  
SW = Staying Warm With Blubber  
CD = Creeps of the Deep  
CU = Clean U That Mess  
WS = I Will Survive

LEARNING OUTCOMES		AL	AC	BU	SH	SW	CD	CU	WS
<b>Kindergarten</b>									
PSS	Use the five senses to make observations	•	•	•	•	•	•	•	
PSS	Share with others information obtained by observing	•	•	•	•	•	•	•	
LS	Describe features of local plants and animals	•	•	•	•	•	•		
LS	Compare common animals		•	•	•	•	•		
<b>Grade 1</b>									
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	•	•	•	•	•	•	•	•
LS	Describe the basic needs of local plants and animals	•	•	•	•	•	•		
LS	Describe how the basic needs of plants and animals are met in their environment		•	•	•	•	•		
<b>Grade 2</b>									
PSS	Use their senses to interpret observations	•	•	•	•	•	•	•	
PSS	Infer the probable outcome of an event or behaviour based on observations	•	•	•	•	•	•	•	
LS	Classify familiar animals according to similarities and differences in appearance, behaviour, and life cycles		•	•	•	•	•		
LS	Describe some changes that affect animals		•	•	•	•	•		
LS	Describe ways in which animals are important to other living things and the environment		•	•	•	•	•	•	

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<b>Grade 3</b>									
PSS	Ask questions that foster investigations and explorations relevant to the content	•	•	•	•	•	•	•	•
PSS	Measure objects and events					•		•	
LS	Compare familiar plants according to similarities and differences in appearance and life cycles			•					
LS	Describe ways in which plants are important to other living things and the environment			•					
<b>Grade 4</b>									
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	Compare the structures and behaviours of local animals and plants in different habitats and communities		•	•	•	•	•		
LS	Determine how personal choices and actions have environmental consequences							•	
<b>Grade 5</b>									
PSS	Identify variables that can be changed in an experiment							•	
PSS	Evaluate the fairness of a given experiment							•	
PSS	Describe the steps in designing an experiment							•	
<b>Grade 6</b>									
PSS	Manipulate and control a number of variables in an experiment							•	
LS	Analyse how different organisms adapt to their environments		•	•	•	•	•		
LS	Distinguish between life forms as single or multi-celled organisms and belonging to one of five kingdoms: Plantae, Animalia, Monera, Protista, Fungi		•	•	•	•	•		



# ENGAGING SCIENCE • BC K–7 MATH

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NC = Number Concepts  
 SP = Statistics and Probability (Data Analysis)  
 SPc = Statistics and Probability (Chance and Uncertainty)  
 SS = Shape and Space (3D Objects and 2D Shapes)  
 SSm = Shape and Space (Measurement)  
 SSt = Shape and Space (Transformations)

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LEARNING OUTCOMES		AL	AC	BU	SH	SW	CD	CU	WS
<b>Grades K–1</b>									
SSm	Classify, describe and arrange objects using comparative language to compare length, size, area, weight and volume	•	•	•					
SS	Explore, identify and classify 3D objects in the environment according to their properties			•	•	•		•	
SSt	ST 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	•	•	•	•	•	•	•	•
SP	Construct a pictograph using one-to-one correspondence								•
<b>Grades 2–3</b>									
SSm	Make connections among manipulatives, diagrams, spoken terms and written symbols								•
SS	Compare, contrast, sort and classify two-dimensional shapes and three-dimensional objects using two or more attributes			•					
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								•
<b>Grade 4</b>									
SP	Select an appropriate sample or population and organize the collection of data	•		•	•		•		
<b>Grade 5</b>									
SP	Identify a question to generate appropriate data and predict results	•	•	•	•	•	•	•	•
SP	Use a variety of methods to collect and record data	•	•						
<b>Grade 7</b>									
NO	Explain and demonstrate the use of proportion in solving problems		•	•	•	•		•	



# ENGAGING SCIENCE • BC K–7 LANGUAGE ARTS

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

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<b>Grade 6</b>									
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	•	•	•	•		•	•	•
<b>Grade 7</b>									
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	•	•	•	•		•	•	•