Monster Trees Curricular Connections - Grade 3

Subject Area	Curriculum Connections	Notes
Mathematics	D1.1 sort sets of data about people or things according to two and three attributes, using tables and logic diagrams, including Venn, Carroll, and tree diagrams, as appropriate D1.2 collect data through observations, experiments, and interviews to answer questions of interest that focus on qualitative and quantitative data, and organize the data using frequency tables D1.3 display sets of data, using many-to-one correspondence, in pictographs and bar graphs with proper sources, titles, and labels, and appropriate scales D1.4 determine the mean and identify the mode(s), if any, for various data sets involving whole numbers, and explain what each of these measures indicates about the data D1.5 analyse different sets of data presented in various ways, including in frequency tables and in graphs with different scales, by asking and answering questions about the data and drawing conclusions, then make convincing arguments and informed decisions E2.1 use appropriate units of length to estimate, measure, and compare the perimeters of polygons and curved shapes, and construct polygons with a given perimeter E2.2 explain the relationships between millimetres, centimetres, metres, and kilometres as metric units of length, and use benchmarks for these units to estimate lengths E2.5 use various units of different sizes to measure the same attribute of a given item, and demonstrate that	If students are measuring many trees to determine the largest of various species, lots of charts and graphs can be generated. If students are measuring trees and collecting data, there are lots of possibilities here. Just the concept of using a measuring tape to measure the distance around a tree would get at the idea of "measurable attributes." - same as conceptualizing how a string could be stretched around something and then straightened out to be measured. - consider using hula hoops as a Venn Diagram organizer - if teaching virtually, ask students to help you sort the leaves or objects while determining logical relations among objects - estimation or guess and check opportunities for children helps them to understand the term 'reasonableness' when answering - students could sort different species of leaves by using the WRDSB Monster Tree resources, create patterns, build graphs, determine the mean and mode(s), using found objects at the base of the tree - when measuring with specific units consider: • Do students realize units need to be the same size and why? • Do they choose appropriate units?

	even though using different-sized units produces a different count, the size of the attribute remains the same	
Language	Reading - read and demonstrate an understanding of a variety of literary, **graphic, and informational texts**, using a range of strategies to construct meaning; Writing - generate, gather, and organize ideas and information to write for an intended purpose and audience; - draft and revise their writing, using a variety of informational, literary, and graphic forms and stylistic elements appropriate for the purpose and audience; - use editing, proofreading, and publishing skills and strategies, and knowledge of language conventions, to correct errors, refine expression, and present their work effectively;	- pairing the exploration of Monster Trees with graphics and words (such as the pre-made WRDSB Monster Tree resources) with real life experiences, helps students to read information in context and grasp the ideas that are communicated through text/graphic - to become good writers, students need frequent opportunities to write for various purposes and audiences such as writing observations by **drawing and labeling a picture** of a tree or by **using different adjectives** to describe the tree's characteristics to a peer, teacher, or family member - linking science and/social studies to media literacy could allow students the opportunity to demonstrate their knowledge about the natural environment by creating media texts like **creating a PSA** (poster, infographic, news clip, iMovie, etc.) drawing conclusions about the land use and where the Monster Trees are found
Social Studies	B1.1 describe some major connections between features of the natural environment of a region and the type of land use and/or the type of community that is established in that region B2.5 evaluate evidence and draw conclusions about some of the short- and long-term effects on the environment of different types of land use in municipal regions of Ontario and about key measures to reduce the negative impact of that use	The largest trees are also the most valuable, and so it's difficult to find trees that have made it to their full life-span.
Science	1.1 assess ways in which plants are important to humans and other living things, taking different points of view into consideration	- identify and discuss the parts of a plant (tree) and identify describe the soils found at the base of the Monster Trees

	1.2 assess the impact of different human activities on plants, and list personal actions they can engage in to minimize harmful effects and enhance good effects	- have students determine which type(s) of soil (e.g., sandy soil, clay soil, loam) will best sustain the life of the Monster Trees
	2.1 follow established safety procedures during science and technology investigations	
	2.2 observe and compare the parts of a variety of Plants	
	2.6 use appropriate science and technology vocabulary, including stem, leaf, root, pistil, stamen, flower, adaptation, and germination, in oral and written communication	
	3.1 describe the basic needs of plants, including air, water, light, warmth, and space	
	3.2 identify the major parts of plants, including root, stem, flower, stamen, pistil, leaf, seed, and fruit, and describe how each contributes to the plant's survival within the plant's environment	
	3.3 describe the changes that different plants undergo in their life cycles	
	3.4 describe how most plants get energy to live directly from the sun	
	3.5 describe ways in which humans from various cultures, including Aboriginal people, use plants for food, shelter, medicine, and clothing	