Winter Birds 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 D2.2 make and test predictions about the likelihood that the mean and the mode(s) of a data set will be the same for data collected from different populations	See Topic 5 in the WRDSB Long Range Plans - Adapt the sample problems suggested to include birds - Identify the physical characteristics of birds (e.g., colour, size, shape, beak, etc.) using frequency tables - Use the graphs generated by @outdoor_ed on Twitter or check in with the WRDSB Outdoor Education site to analyse the Winter Bird data the Outdoor Education Specialists will be curating If students are identifying birds and collecting data, there are lots of possibilities here. The outdoor education staff will be providing links to the data submitted by all participants, as well as various graphs of the data. - consider using hula hoops as a Venn Diagram organizer - if teaching virtually, ask students to help you sort the birds - estimation or guess and check opportunities for children helps them to understand the term ‘reasonableness’ when answering - students could sort different species of birds by using the bird identification key, create patterns, build graphs, determine the mean and modes of numbers of birds found by species
Language	Reading - read and demonstrate an understanding of a variety of literary, **graphic, and informational texts**, using a range of strategies to construct meaning;	- pairing the exploration of Winter Birds with graphics and words (such as the pre-made Winter Bird resources found on the WRDSB Outdoor Education website) with real life experiences, helps students to read information in context and grasp the ideas that are communicated through text/graphic

	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;	- 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 bird or by **using different adjectives** to describe the bird'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 Winter Birds are found
Social Studies	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	- create provocations for students to consider the land use in your school's municipality - how does this impact the bird population in this area? Are any birds forced to relocate?
Science	1.1 assess ways in which plants are important to humans and other living things, taking different points of view into consideration (e.g., the point of view of home builders, gardeners, nursery owners, vegetarians), and suggest ways in which humans can protect plants	- consider birds as pollinators and the link between birds and plants - when does pollination happen? How does this impact plants? - are there any known Winter Birds in your school's geographic community that are pollinators? Why or why not?