

# Data Collection and Analysis

Students will use Microsoft Excel to produce results from data they have collected. Becoming familiar with the toolbars, data entry and manipulation of data will be some of the outcomes targeted. The students will take the data and formulate different graphs. The graphs will be compared to determine which best portrays the information they are trying to achieve and present it to the class.

In the classroom the teachers will discuss data collection and decide on questions they will investigate. The children will carry out the process and come to the lab with their results.

## ***Math outcomes***

### **Collect first-and second-hand data, assess and validate the collection process, and graph the data**

Select a sample or population and organize the collection of data

Manipulate data to create an interval graph/table for display purposes

Construct a bar graph and pictograph, using many-to-one correspondence, and justify the choice of intervals and correspondence used.

Discuss the process by which the data was collected

## ***ICT outcomes***

***Students will use organizational processes and tools to manage inquiry.***

2.1 design and follow a plan, including a schedule, to be used during an inquiry process, and make revisions to the plan, as necessary

2.2 organize information, using such tools as a database, spreadsheet or electronic webbing

2.3 reflect on and describe the processes involved in completing a project

***Students will use technology to investigate and/or solve problems.***

2.5 solve problems requiring the sorting, organizing, classifying and extending of data, using such tools as calculators, spreadsheets, databases or hypertext technology

***Students will demonstrate an understanding of the nature of technology.***

2.1 apply terminology appropriate to the technologies being used at this division level

2.2 identify and apply techniques and tools for communicating, storing, retrieving and selecting information

2.3 explain the advantages and limitations of using computers to store, organize, retrieve and select information

2.4 recognize the potential for human error when using technology

***Students will understand the role of technology as it applies to self, work and society.***

2.1 identify how technological developments influence one's life

2.2 identify the role technology plays in a variety of careers

2.3 examine the environmental issues related to the use of technology

***Students will demonstrate a moral and ethical approach to the use of technology.***

- 2.1 comply with the acceptable use policy of the school and school authority for Internet and networked services, including software licensing agreements
- 2.2 work collaboratively to share limited resources
- 2.3 use appropriate communication language and etiquette
- 2.4 document sources obtained electronically, such as web site addresses
- 2.5 respect the privacy and products of others
- 2.6 use electronic networks in an ethical manner
- 2.7 comply with copyright legislation

***Students will practise the concepts of ergonomics and safety when using technology***

- 2.1 demonstrate the application of ergonomics to promote personal health and well-being
- 2.2 identify and apply safety procedures required for the technology being used

***Students will demonstrate a basic understanding of the operating skills required in a variety of technologies.***

- 2.1 power up and power down various technologies and peripherals correctly
  - 2.2 use and organize files and directories
  - 2.3 use peripherals, including printers and scanners
  - 2.4 use appropriate keyboarding techniques for the alphabetic and punctuation keys
- 2.1 create and revise original text to communicate and demonstrate understanding of forms and techniques
  - 2.2 edit and format text to clarify and enhance meaning, using such word processing features as the thesaurus, find/change, text alignment, font size and font style

***Students will organize and manipulate data.***

- 2.1 enter and manipulate data by using such tools as spreadsheets or databases for a specific purpose
- 2.2 display data electronically through graphs and charts