Task-based Activity Cover Sheet

Task Title: Interpret a pie graph to identify election results

Learner Name:
Date Started: **Date Completed:**   **Successful Completion:** Yes___ No___
Goal Path: Employment ✓ Apprenticeship___ Secondary School ✓ Post Secondary ✓ Independence___
Task Description: Identify the results of the election by examining the pie graph

Competency:	**Task Group(s):**
C: Understand and Use Numbers	C4: Manage Data
A: Find and Use Information	A2: Interpret documents

Level Indicators:
C4.2:   Make low-level inferences to organize, make summary calculations and represent data
A2.2:   Interpret simple documents to locate and connect information
Performance Descriptors: see chart or click here
Skill Building Activities: see last page or click here
Materials Required: • Pen or pencil   • Calculator   • Paper
ESKARGO: C4.2:   • recognizes patterns and begins to identify trends in data (e.g. population, crime, demographic, inventory, injury)   • interprets rates (e.g. crime rates) and ratios (e.g. shots-on-net to goals)   A2.2   • Uses knowledge of vocabulary and sight words related to specific forms, tables, graphs, maps and flow charts to obtain meaning   • Uses pictures and illustrations to gather information about the text   • Uses layout to locate information   • Uses a variety of strategies to decode and determine the meaning of unfamiliar words

- Scans to locate specific information
- Skims to understand purpose and use of document
- Identifies basic parts of a form, table, simple graph and chart
- Uses understanding of kinds of forms, kinds of tables, kinds of graphs, kinds of maps and kinds of charts to help identify purpose
- Uses various conventions of forms, tables, simple graphs, maps and flow charts to obtain meaning; i.e., layout, rows and columns, titles, headings and sub-headings, types of graphs, x and y-axis, legends, symbols and icons to comprehend and interpret data
- Makes connections between elements and parts of documents
- Identifies purpose and use of specific forms, tables, simple graphs
- Interprets data from graphs (e.g., bar graphs, pictographs, and circle graphs)
- Identifies timing of events
- Makes low-level inferences
- Recognizes that graphs, tables and charts can present data with objectivity of with bias graphs
- Begins to evaluate information

Attitudes:

Practitioner,

We encourage you to talk with the learner about attitudes required to complete this task set. The context of the task has to be considered when identifying attitudes. With your learner, please check one of the following:

□ Attitude is not important   □ Attitude is somewhat important   □ Attitude is very important

Task Title: Interpret Pie Graph to identify election results

Learner Information and Tasks:

Election results are easily interpreted when presented in a pie chart/graph because the political parties can be quickly compared to one another. The results of the election are communicated as statistics.

Look at the "2011 Ontario Election Results from Elections Ontario" and the "2014 Ontario Election Results from Elections Ontario".

Task 1:   For each pie graph, rank the results from largest to smallest.

2011 Election Results   2014 Election Results

1.   1.

2.   2.

3.   3.

Task 2:   Calculate the difference in percentage from 2011 to 2014 for each party and indicate if it was an increase or decrease.
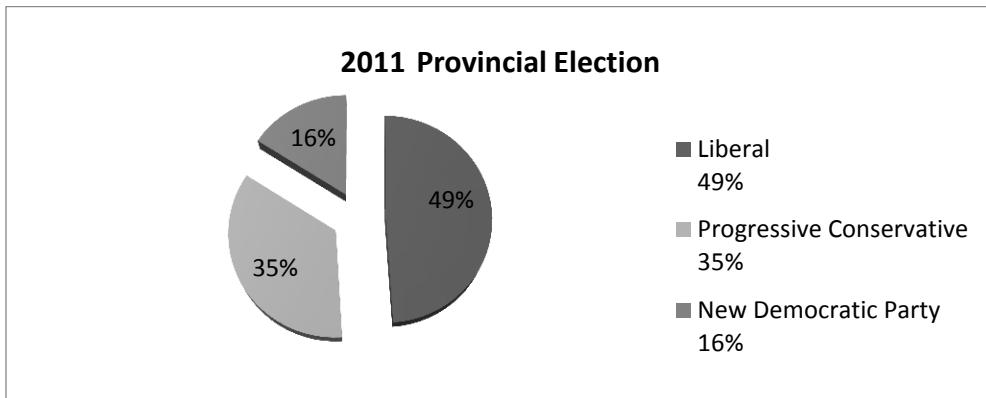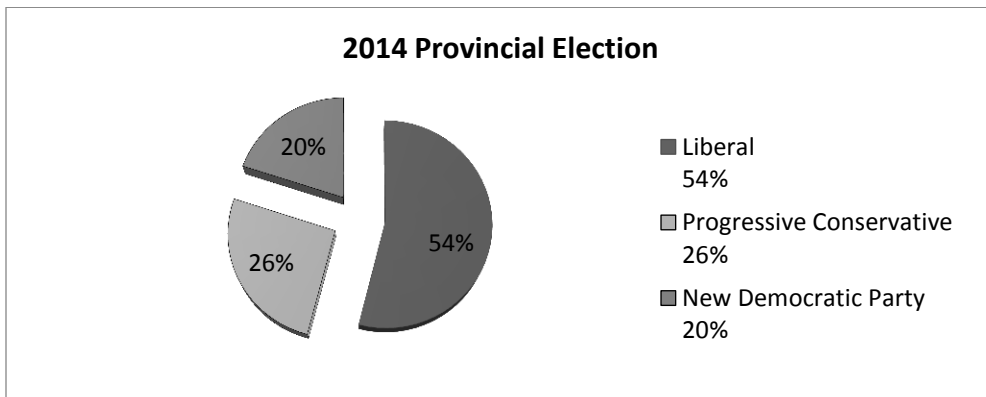
Difference in Election Results
from 2011 to 2014

LIB

NDP

PC

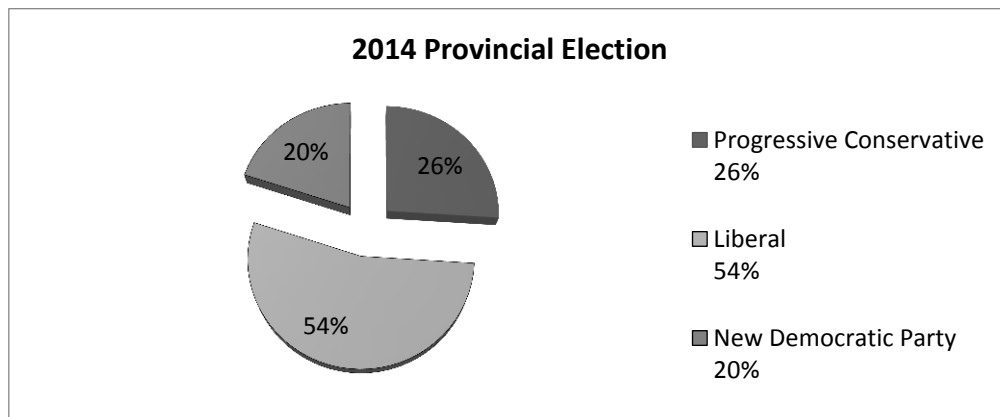## 2011 Ontario Election Results from Elections Ontario

2011 Provincial Election

- ■ Liberal
  49%
- ■ Progressive Conservative
  35%
- ■ New Democratic Party
  16%

2014 Ontario Election Results from Elections Ontario

2014 Provincial Election

- ■ Liberal
  54%
- ■ Progressive Conservative
  26%
- ■ New Democratic Party
  20%

Many people in Toronto were questioned prior to the election and asked their opinion by Global TV, Toronto (www.globaltv.com).

Look at the results of the "Global TV Poll 2014 Provincial Election" and the "2014 Provincial Election".

Global TV Poll 2014 Provincial Election

- Progressive Conservative 38%
- Liberal 45%
- New Democratic Party 17%

2014 Provincial Election

- Progressive Conservative 26%
- Liberal 54%
- New Democratic Party 20%
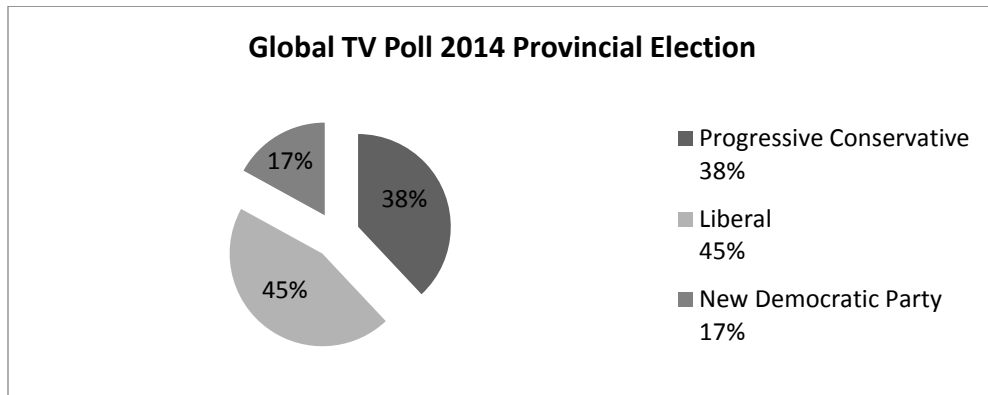
Task 3:   Calculate the difference in results between the two graphs.

Task 4:   Which party or parties had better results in the Election than indicated by the Global TV Poll ?

Task Title: Interpret Pie Chart of Election

Answer Key

Task 1:   Answer:

2011 Election Results   2014 Election Results

1. 49% LIB   1. 54% LIB

2. 35% PC   2. 26% PC

3. 16% NDP   3. 20% NDP

Task 2:   Answer:

LIB difference: increase by 5%

NDP difference: increase by 4%

PC difference: decrease by 9%

Task 3:   Learners will calculate the difference in percentage, describe the segments to be larger or smaller

LIB   difference of 9%   PC difference of 12%   NDP difference of 3%

Task 4:   Liberals and NDP

Task Title: Interpret Pie Chart

	Performance Descriptors	Needs Work	Completes task with support from practitioner	Completes task independently
C4.2	• Calculates using numbers expressed as whole numbers, fractions, decimals, percentages and integers			
	• recognizes patterns and begins to identify trends in data (e.g. population, crime, demographic, inventory, injury)			
	• interprets rates (e.g. crime rates) and ratios (e.g. shots-on-net to goals)			
A2.2	• locates information in simple graphs and maps			
	• makes low-level inferences			
	• begins to identify sources and evaluate information			

This task: was successfully completed___   needs to be tried again___

Learner Comments

_____   _____

Instructor (print)   **Learner Signature**

Skill Building Activities

Links to online resources:

- http://www.skillsyouneed.com/num/graphs-charts.html - information on the types of charts and graphs there are, how to read and understand the data presented on charts and graphs
- http://cemc2.math.uwaterloo.ca/mathfrog/main.shtml - links for Grades 4,5 & 6 math activity sheets including information on graphing – reading and interpreting, completing and creating different circle and pie graphs
- https://www.mathsisfun.com/data/pie-charts.html - examples of pie graphs, how to compile your own data and make one, some practise exercises included
- https://www.youtube.com/watch?v=4JqH55rLGKY – a 3 minute video by the Khan Academy on how to read pie graphs

LearningHUB online courses available:

- **Reading & Writing, Independent Study (Assigned by practitioner after assessment)**:
    - Reading Level 1, Assignment 3 (Reference and Technical Material 1);
    - Reading Level 2, Assignment 3 (Letters and Reports 2);
    - Reading Level 3 Assignment (Reading Strategies 3+ Reading Reports 3);
    - Document Use Level 1, Assignment 2 (Data Collection and Reading Graphical Data 1);
    - Document Use Level 2, Assignment 2 (Computing Graphical Data 2);
    - Document Use Level 3, Assignment 1 (Forms 3 + Complex Charts and Graphs 3), Assignment 2 (Charting and Graphing 3), Assignment 3 (Constructing Charts and Graphs 3), and Assignment 4 (Control Charts 3).

- **Math, Independent Study (Assigned by practitioner after assessment):**
    - PLATO 303 Data Analysis

- **Live Classes (SABA)**
    - Understanding Algebraic Graphing
    - Percentages A
    - Percentages B

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*To Access LearningHUB Course Catalogue:
http://www.learninghub.ca/Files/PDF-files/HUBcoursecatalogue,%20December%2023,%202014%20revision.pdf