PROBLEM-BASED LEARNING
Scenario 1 - Data Collection

Gina would like the Level 3 ESOL students to collect, organize, graph, analyze and present data about the students in our program. The information that would be useful to her is:

- age
- country of birth
- languages spoken (besides English)
- current city
- length of time in the US
- number of kids in public school
- transportation to school
- number of students who work outside the home
  - job titles
  - number that work full-time or part-time

In order to complete this project, Level 3 students will work with a partner and follow these steps:

1. Collect data - create interview questions; interview all students; record all answers
2. Organize data - put answers to each question in one area; organize data into groups
3. Graph data - enter data into Google Sheets; create a graph with data
4. Analyze data - calculate percentages; compare groups; decide what it might mean; type 1 paragraph in Google Docs
5. Present data - join graph and paragraph; add to website (Jessica); present to the class
Vocabulary – Analyzing a graph or chart

**Verbs**
to analyze
to calculate
to increase
to decrease

**Nouns**
bar graph
line graph
pie chart
data
percent (number)
percentages (amount)
average
half of

**Adjectives (quantifiers)**
many
a few (count)
a little (non-count)
some

**Superlatives**
highest
lowest
most
fewest (count)
least (non-count)

**Comparatives**
more than
fewer than (count)
less that (non-count)
GOOGLE SHEETS – Entering Data and Creating a Chart

1) Sign in to gmail.com

2) Click on the waffle, then find and click on Sheets

3) Click Blank to start a new sheet

4) Click on Untitled Spreadsheet to rename the document

5) In the A,1 box, type your first category or group name.

6) Continue to the right typing all of your group names.

7) In the A, 2 box, type the value of your first group.

8) Continue to the right typing all of your values.

9) Highlight all of your information.

10) Click on Insert Chart.

11) Google Sheets Chart Editor gives you some ideas of graphs or charts to use.

12) Choose 1. (You can also click on Chart Types to see more options.)

13) Click on the Customization Tab.

14) Type a Title for your chart. (You can change the size and the font color here.)

15) If you have selected a pie chart, next to Slice, choose Value, NOT Percent.

16) Scroll down. Next to Series, you can change the colors of columns or slices if you want.

17) When you are finished click Insert.

18) Share your document with your teacher. Click Share (top right).

My email: jcardin@nsicap.org
By Ana and Miralba

This pie chart shows where NSCAP students live. Most of students live in Peabody. 35% of students live in Salem. The lowest percent of students live in Danvers, Beverly and Chelsea. 9% of students live in Lynn. Fewer students live in Salem than Peabody. Most of students live in Peabody because NSCAP is located in Peabody.

For more examples:
nscalesol.weebly.com/data-collection-2016.html
### Question(s)-
#### Names of Presenters-
**Directions:** Using a checkmark √, give the team 0, 1, 2 or 3 points for each criteria.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Points = 0</th>
<th>Points = 1</th>
<th>Points = 2</th>
<th>Points = 3</th>
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</thead>
<tbody>
<tr>
<td>Presenters’ graph was easy to understand.</td>
<td></td>
<td></td>
<td></td>
<td></td>
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<tr>
<td>Presenters used phrases such as more...than, most, and fewest.</td>
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<tr>
<td>Presenters used percents in their presentations.</td>
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<tr>
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<tr>
<td>Presenters made good eye contact with the audience.</td>
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