I. We will draw picture graphs and bar graphs to represent data by at least 4 categories.

Which is the most popular superpower?

- Flight
- Super Speed
- Super Strength
- Invincibility

Title: Most Popular Superpower

2. We will use appropriate tools when generating line plots.

Measurement tools and data collection:

Data: What we want to learn... Inquiry: What do we want to learn...

Axis:

- X-axis: Number of Students
- Y-axis: Most Popular Superpower

Bar Graphs:

- Flight
- Super Speed
- Super Strength
- Invincibility

What is the most popular superpower?
**UNIT PLANNING TOOL**

**Planning Focus:** Addition and Subtraction with word problems  
**Module(s)/Unit(s):** Stepping Stones Modules 6 & 9 Data

**CCSSM:**

**2.MD.D.10:** Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems using information presented in a bar graph.

**2.MD.D.9:** Generate measurement data by measuring lengths of several objects to the nearest whole unit, or by making repeated measurements of the same object. Show the measurements by making a line plot, where the horizontal scale is marked off in whole-number units.

**Mathematical practices being emphasized:**

- Use appropriate tools strategically. (#5)
- Attend to precision. (#6)

**Essential Questions**

How do we use a survey to collect data?
Why is it important to be able to organize and graph data?
How does a line plot help me share my data?
How can we use a picture graph, bar graph, chart, or table to organize data and answer questions?

**Key Concepts**

- Draw picture graphs and bar graphs that represent a data set with up to four categories
- Solve simple put-together, take-apart, and compare problems using the data presented in graph
- Generate measurement data
- Show measurements in a line plot

**Pre Assessment**

Write the number 7. Show me how to write 7 with tally marks.

How many students voted for strawberry?

How many more students voted for cherry than vanilla?

How many chocolate and vanilla votes are there altogether?
Connections (Real World Applications)

Students use the gathering of data on a daily basis. Watch for examples of real problems that can be highlighted.

- How many more boys than girls are here today?
- How many more students like math more than science?
- Where do we want to go on a field trip?
- Record your scores from your pre and post test in your data journal. (student progress)
- How did we do on our last I-ready or I-station test?
- Any survey
- Value or cost of items

Language Functions/Structures

Functions: Explain. Analyze, Interpret, Compare.

Structures:
How many more _________ than _________?
How much more _________ than _________?
The graph tells us _________.
How many fewer _________ than _________.
How many _________ and _________ are there altogether?
The _________ and _________ have the same amount as _________.

Vocabulary

<table>
<thead>
<tr>
<th>survey</th>
<th>bar graph</th>
<th>line plot</th>
<th>data</th>
</tr>
</thead>
<tbody>
<tr>
<td>tally marks</td>
<td>horizontal</td>
<td>picture graph</td>
<td>key</td>
</tr>
<tr>
<td>scale</td>
<td>vertical</td>
<td>categories</td>
<td>altogether</td>
</tr>
<tr>
<td>more than</td>
<td>fewer than</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Focus and Motivation

Brain Pop Jr. — Tally Charts and Bar Graphs
Pictographs

Chants — Data Here, There (DLenM chant bank)

Literature — Lemonade for Sale by Stuart J. Murphy
Follow an Ice-cream Cone Around the World by Neale S. Godfrey
Talley O-Malley by Stuart J. Murphy

Activity — Any type of surveys conducted by students and the creation of graphs (real objects or pictures)