

4565: Computing Foundations for a Digital Age

Unit 4

Day 4 Lesson Plan: The Candy Data Challenge (Part 2)

Objective

Students will create visual representations of their data and use those visuals to interpret patterns and make predictions.

Word Bytes

- **Bar Chart** – A graph that uses bars to show quantities of different groups.
- **Pie Chart** – A circular graph divided into slices to show proportions.
- **Pattern Recognition** – Identifying trends or repeated behaviors in data.

Materials

- Completed Candy Data Collection Sheets (from Day 3)
- Devices with spreadsheet/charting tools (e.g., Google Sheets)
- Graph paper and colored pencils (for manual chart creation)
- Reflection Questions Sheet or class discussion prompts

Activities

Mini-Lesson: Choosing the Right Chart

Briefly review:

- When to use a **bar chart** (comparing categories like candy color)
- When to use a **pie chart** (showing proportions or parts of a whole)
- How charts can highlight patterns that tables might not

Hands-On Activity: Create Visuals

- Students input their candy data into a spreadsheet or draw by hand
- Create at least one bar chart and one pie chart
- Label all parts clearly (titles, axes, legends, colors)

Discussion: What Can We Learn?

- What does your chart show that your table didn't?
- Which candy color was the most/least common in the class overall?
- Are the proportions similar between groups?

Extension: Predict & Test

- Have students predict what they would expect in a second sample bag.
 - If supplies allow, test a new sample and compare results to predictions.
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Word Bytes Dictionary Update

Students add today's terms with examples:

- Bar Chart – A graph showing five red candies, three green, and two yellow.
- Pie Chart – A circle split into slices showing the percentage of each candy color.
- Pattern Recognition – Noticing that red candies are almost always the most common.