Activity 2: Making Bar Graphs

Goals:
• Review components of a bar graph
• Practice reading bar graphs

Helps support Common Core State Standards related to graphing: CCSS.MATH.CONTENT.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.

Materials:
- Paper
- Pencils
- Graph Paper
- Computer(s) with Web access
- Sticky notes
- Masking tape

Prior Knowledge:
Students will need to know how to read and interpret bar graphs.

ELECTRIC WORDS
bar graph compare

PLUG IT IN
Navigate to Prankster Planet’s Reverse-A-Ball game from The Electric Company website pbskids.org/electriccompany/pranksterplanet. After avatar creation, click on the Spacecraft that will appear in the upper right hand corner. From the “Mission Movies” selection, choose the clip for Mission 2. This short clip will introduce the curricular concept that will be touched upon in the level, as players learn the next tricky obstacle that Marcus and Jessica must overcome in order to stop Francine from mixing up all the words on Earth.
Prior Knowledge (10 minutes)
Recall what you’ve learned about bar graphs:

• Ask students for ways they might use bar graphs in real life. Write their answers on the board and discuss why bar graphs are good for keeping track of, comparing, and analyzing information. Explain, “We are going to use bar graphs in a game.”

• Hide two types of objects around the room (such as paper clips and crayons).

• Give students two minutes to find and gather as many of these items as they can.

• Have students use graph paper to create bar graphs showing how many they found of each item. As students work, remind them of the different parts of a bar graph that must be labeled correctly including the title, the X-axis, and the Y-axis. If students need extra support, create a bar graph as a group on the board.

It’s Time to Visit Prankster Planet. (20 minutes)
Explain the mission: “Let’s help Marcus and Jessica on Prankster Planet. They have to stop Francine’s reverse-a-ball machine. In order to do that, we have to read Francine’s bar graphs.”

Log onto pbskids.org/electriccompany/pranksterplanet/ and play Reverse-A-Ball (mission 1) as a whole group, in pairs, or as individuals.

Assess the Learning

• To make sure that students are mastering the concept, have them create an Electric Company bar graph based on students’ responses to the question, “If you were stuck on Prankster Planet, who would you want to be stuck with: Marcus, Jessica, or Francine?”

• Ask students to vote, “Raise your hand if you’d want to be on Prankster Planet with Jessica. Raise your hand if you’d want to be with Marcus. Raise your hand if you’d want to be with Francine.”

• Finish by writing the results of your vote on the board. Ask a volunteer to suggest a title for these results.

• In pairs, have students create a bar graph that shows the results of the vote.

• Have students answer your questions about their graph together with their partners. For example, you might ask, “How many votes did each character receive?” “How many votes did Marcus and Francine receive together?”
AMP IT UP

You can extend the experience even further with the following activities that provide “real life” applications of the learning goals.

In Your Space

- Have students make a giant bar graph on the floor using sticky notes.
- Decide on something to vote on, such as favorite colors, animals, or foods. Use masking tape to mark the X-axis and Y-axis on the floor. Use construction paper to label each part of the graph.
- Give each student a sticky note.
- Have students vote by lining up behind their choice marked on the floor. Once everyone has lined up, have students place their sticky note on the floor to connect with the piece before and after theirs.
- Have everyone step back from the graph. Talk about which choice has the most votes (the choice with the longest line of sticky notes).

At Home

- Suggest that students use bar graphs to find out more about the people in their family.
- Challenge students to poll relatives and friends to find out people’s favorite animal, favorite sport, or favorite color. You can also suggest that they vote on a game they want to play.
- Encourage students to create a bar graph showing their results. Dedicate a corner in your space, or create a graph binder to showcase students’ work.

pbskids.org/electriccompany/pranksterplanet