InsightMath Texas

Discovering Data

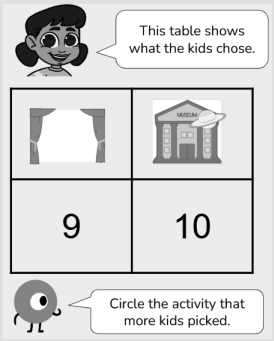
Family Guide | Grade K | Unit 8

Your student is exploring how asking questions and using data to critically answer those questions help to make sense of the world.

Key Math Ideas

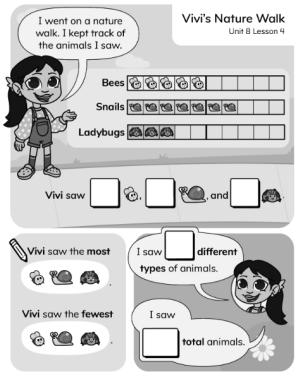
Students explore sorting, organizing, and labeling collections so that they can understand and tell others about their data. They find their own ways to display and label a collection and then create and interpret "real-object graphs," picture graphs, and tables. They answer questions about how many in each category, which category has more/fewer or most/fewest, and how many altogether.

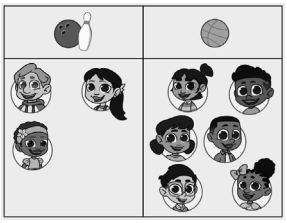
As the unit progresses, students vote for their preferences and discuss how data in a table or graph can be used to guide decision making. Examples from the unit include deciding what type of food to bring to a party based on people's votes and deciding what treats to make for a bake sale based on what sold well at the previous bake sale.

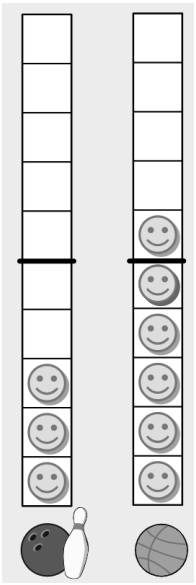


→ In the first part of the unit, your student will learn to

- sort data into categories based on a single attribute (such as size, color, or type of animal);
- create real-object graphs with up to three categories;
- answer questions about which category has more/most or fewer/fewest and how many total objects there are.







→ In the last part of the unit, your student will learn to

- collect data by voting;
- use voting data to determine the best way to make a decision;
- make predictions about data and compare predictions to the results displayed in tables or picture graphs.

Helpful Hint

Students often focus on the individual data points and need additional support to see the "big picture" of what the data is telling them. For example, your student might be able to tell you that more students like apples than bananas but may not realize we can use that information to make a grocery list with a plan to buy more apples than bananas. After interpreting a graph, work with your student to think about how they could use the data to make a decision.

Tips for Supporting Your Student at Home

Questions to Ask Your Student

→ In the first half of the unit:

- What categories did you make? Why?
- Which category has more/ fewer? How do you know?
- How many in all?
- Is there another way we could sort these things into categories?
- What do the labels tell us?

→ In the second half of the unit:

- What questions could we ask people to get more information?
- What does this graph tell us?
- How could we use the data to make a decision?

If...	Try...
your student is struggling to answer "which has more?" questions . . .	asking them which number comes later when they are counting out loud or drawing lines to compare how far each category extends in the graph.

Student Strengths Spotlight

We take time to think. Students take their time to notice all of the information that a graph displays, such as which category has the most or fewest and how

We learn from our mistakes. Students learn that when making predictions, it is important to be able to justify a prediction, but it is also okay to be wrong and update thinking as more information becomes available.

Try This Together!

- **Toy Data.** Sort toys or other home objects into categories and have your student label their categories and interpret their data, answering questions about which category has the most and fewest, what that tells them, and how many they have in all.
- **Sorting Groceries.** Have your student unpack the family grocery order and decide how to best categorize items (cleaning supplies, fridge foods, etc.).
- **Family Votes.** Have your student collect data to help your family make decisions about activities, the grocery list, or dinner. For example, your student could survey your family asking which of two snacks should go on the grocery list or which playground to visit.
- **Data Walk.** Go for a walk outside and collect some objects, like interesting rocks or leaves. Have your student sort and organize their objects using categories (size, color, type, etc.), then display the information with a real-object graph, picture graph, or data table