Travel Survey

Companion Text: I Lost My Sock, by Lin Jakary & Ryan Olson
Subject Area & Grade Level: Mathematics, 4th Grade

Objectives

After this lesson, students will be able to:

- Conduct a survey of travel preferences among classmates
- Organize data into groups and represent them graphically
- Identify elements that make graphs easy or difficult to interpret

Activity

Read the story through once without stopping. Ask students to point out where the boy imagined that his sock had traveled (the Cays, China, & Rome). Ask them to think about why the sock might have wanted to travel to these places; what does someone gain by traveling?

Assist students in collecting information from each other and recording it in an organized way. Students may create their own question, but it should be something about travel. For example, students might ask each other which other countries they would most like to visit, what the coolest place they have already been is, or what types of activities they enjoy while traveling. One system that works well is to create one survey by having each student type his or her question into a single document. Then, print off the survey for all students to take, and copy the results for all students. You could also allocate time for students to collect information from each other orally in small, rotating groups. For oral data collection, you might print off a class list for each student, have each student write their own question at the top, and then fill in each of their classmates' answers over the course of a day, a few minutes here and there.

Once each student has a set of data to work with, tell students that it's their job to present their data graphically any way they'd like. For example, they might use a column chart, a pie chart, or a world map with location markers. Suggest that they make clear use of colors or patterns to differentiate their data.

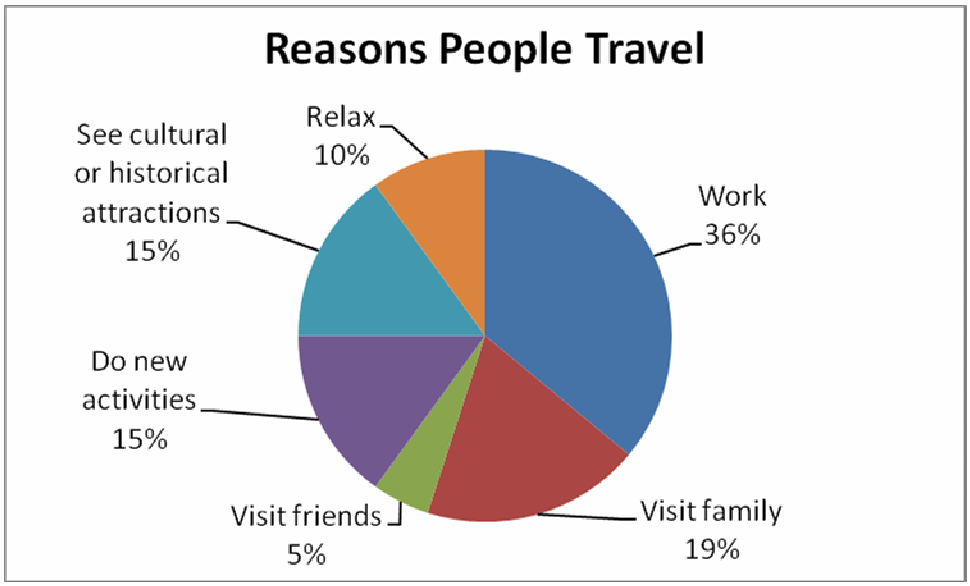
Reflection

Have students present their graphical representations to the class, and guide students through respectfully critiquing each other's work. Ask: "Is it easy to understand what this graph/picture is trying to show?", "What could be changed about this graph/picture to make it easier to understand?", "How is color or pattern used?", or "Are there other ways you can think of to show the same information?" Point out good spacing, font size, use of color or pattern, and choice of chart type as students present.

Lastly, use the attached worksheet to reinforce chart interpretation.

Why Do People Travel?

Use the chart below to answer the following questions:



What are the advantages of using a pie chart to show this information?

What can you say by looking at this chart about the percentage of people who travel to visit other people compared to the percentage who travel to see or do new things?

If this chart shows the responses of 200 people, how many people travel primarily to relax? How many people travel primarily for work?

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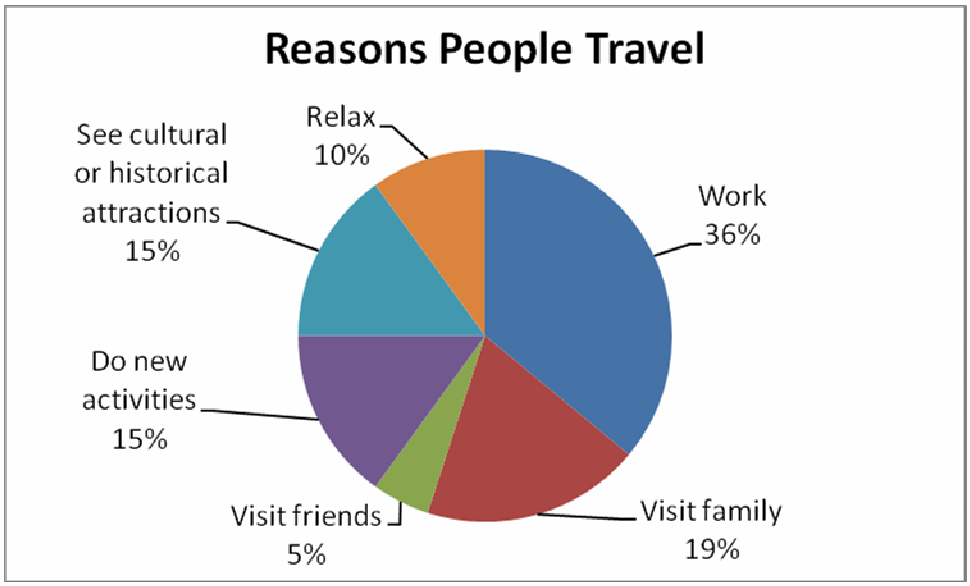

What are the advantages of using a pie chart to show this information?

Pie charts make it easy to compare data categories with each other, and also to see quickly which categories are largest and smallest. They only work with percentages that add up to 100, and when there are not very small categories. They can add depth of understanding by using color (i.e. using a pink wedge for girls and a blue wedge for boys in a pie chart showing a gender comparison).

What can you say by looking at this chart about the percentage of people who travel to visit other people compared to the percentage who travel to see or do new things?

Travel to visit others= 5% + 19%= 24%; Travel to see attractions or do new things=15%+15%=30%. Therefore, slightly more people travel for personal enrichment rather that strictly to visit friends or relatives.

If this chart shows the responses of 200 people, how many people travel primarily to relax? How many people travel primarily for work?

Relax: 10% of 200= 20 people. Work: 36% of 200=72 people.