Create A Bar Graph II
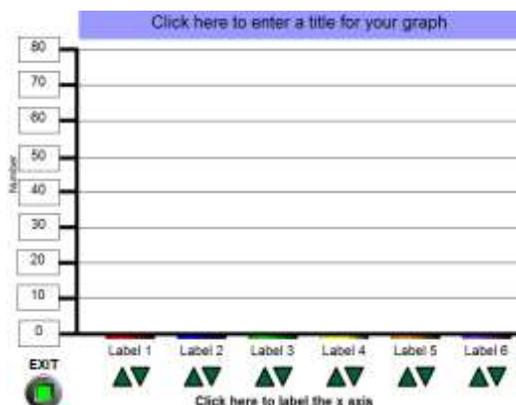## *Instructions and Example Questions*

Instructions

Use the up and down arrows to create bars.

Click the numbers and words to change the scale, labels, and title.

Uses

Option A: One of the attached data sets can be displayed on a split screen with the bar graph creator or can be copied and handed out to each student. Students can work as a class with an interactive whiteboard to create the graph.

Option B: Students can share a computer and collaborate in small groups to create the graph.

Option C: Students can work on computers independently to create the graph.

Have all groups/individuals use the same data set or have different groups work with different data sets. Have groups/individuals using the same data set compare their graphs when they are finished.

Graphs can be printed and handed in by using your browser's print feature or by using a screen capture.

Example Questions (used with every data set)

Create a bar graph to match this data set.

Construct a bar graph that could represent the same set of data.

Example Data Sets

This tally chart shows the number of rocks six students collected for science class.

Rocks Collected

Student	Number of Rocks
Amy	|||
Jeremy	||
Scott	||||
Emily	⊬⊢⊢
Marco	⊬⊢⊢ ||
Shana	⊬⊢⊢ ||||

This tally chart shows the number of cans six students collected for the food drive.

Cans Collected

Student	Number of Cans
Juan	||
Makenna	|||
April	||||
Rick	⊬⊢⊢ ⊬⊢⊢ ||
Monique	⊬⊢⊢ ⊬⊢⊢ |||
Alexis	⊬⊢⊢ ||||

Alex surveyed 40 students about their favorite genre of book. This circle graph represents the results of the survey.

Favorite Genres

Fantasy

Science Fiction

Nonfiction

Historical Fiction

Realistic Fiction
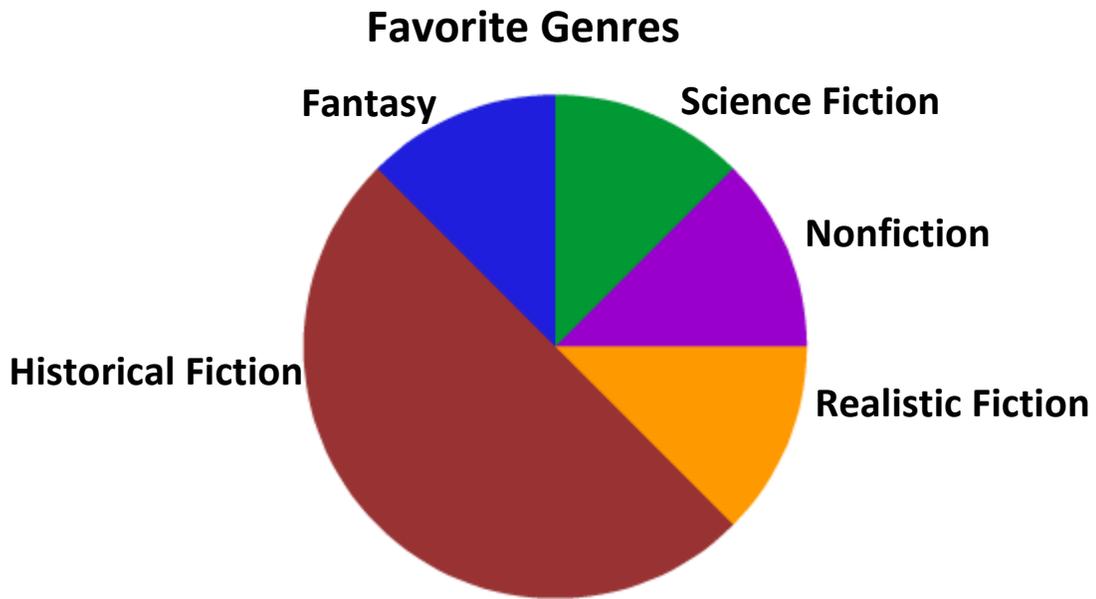
Jackie surveyed 30 students about their favorite school subject. This circle graph represents the results of the survey.
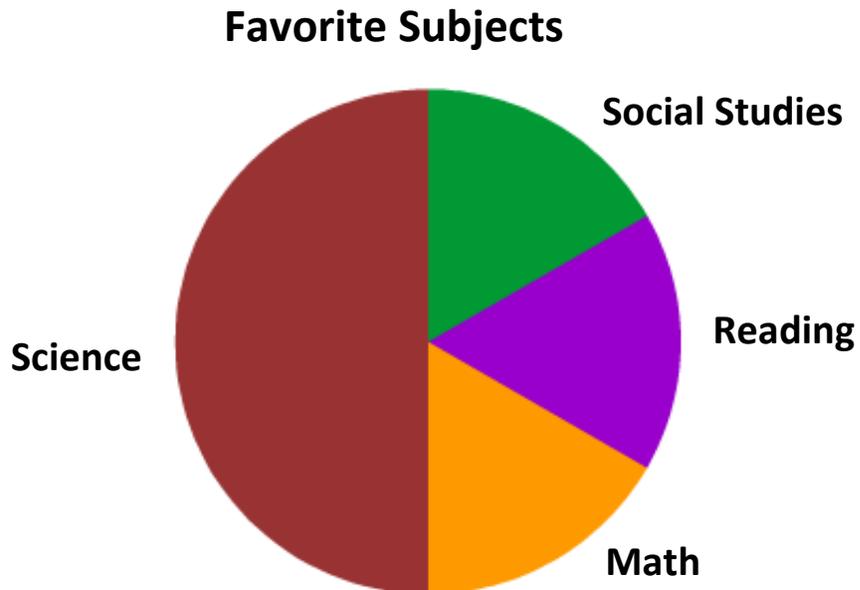
Favorite Subjects

Social Studies

Reading

Science

Math

Discussion Questions

1. How did you determine each graph's scale and interval?
2. What additional information would allow you to write more specific titles?
3. How could you make the y axis label more specific?
4. What additional information would allow you to make the x axis label more specific?
5. Discuss how this interactive appears to show part of each bar below 0 but that the bar really begins at zero.
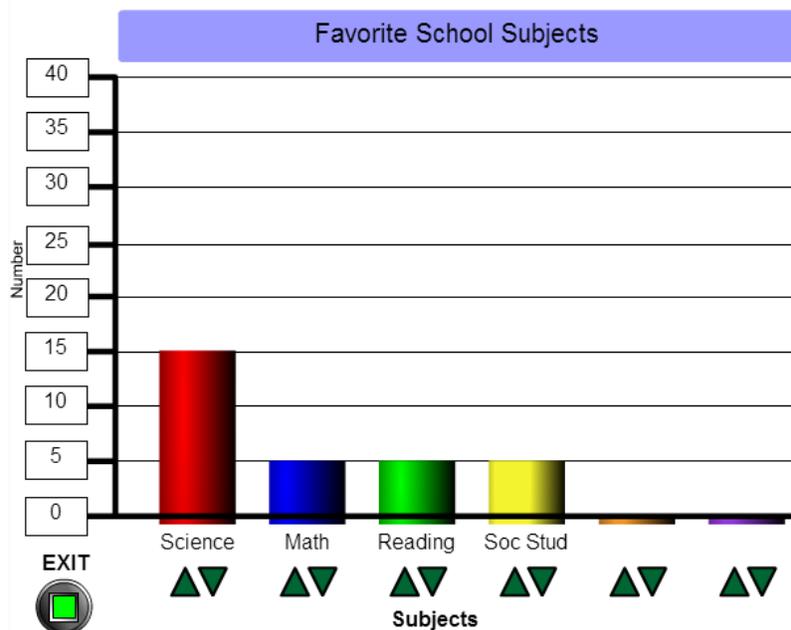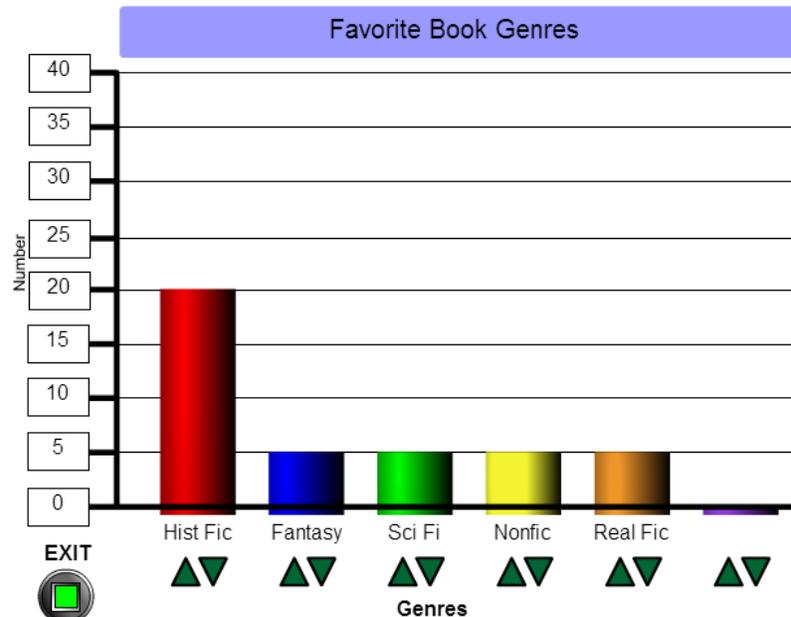
Answer Key for Example Tally Chart Data Sets
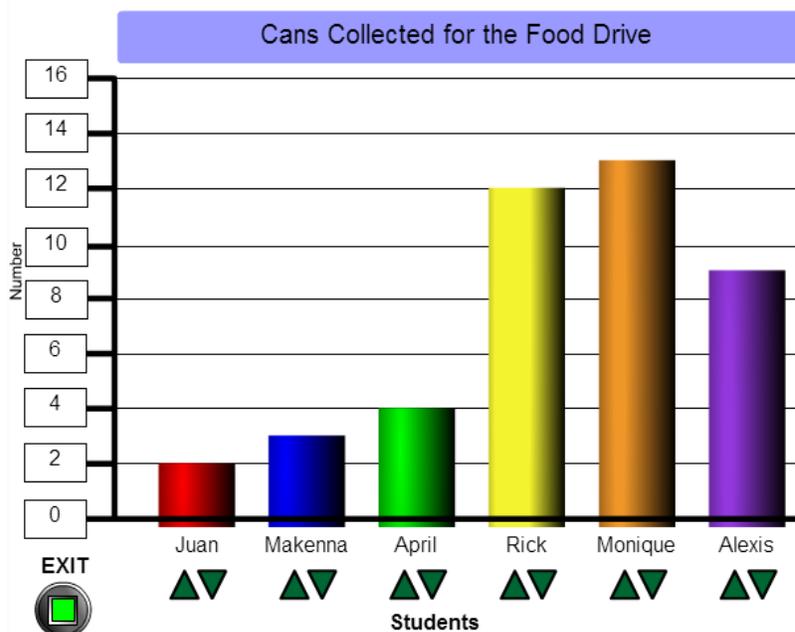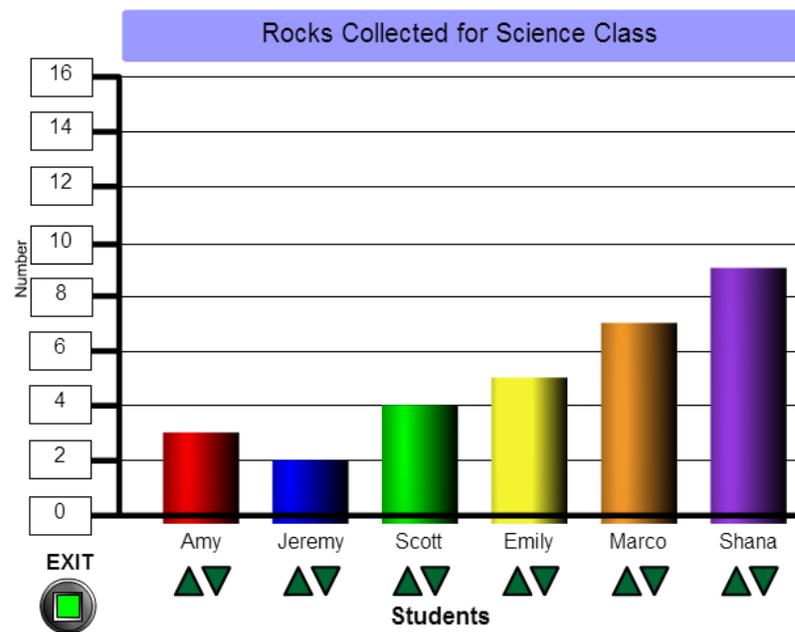
Discussion Questions

1. How did you determine each graph's scale and interval?
2. What additional information would allow you to write more specific titles?
3. How could you make the y axis label more specific?
4. What additional information would allow you to make the x axis label more specific?
5. Discuss how this interactive appears to show part of each bar below 0 but that the bar really begins at zero.
6. Discuss how making the bars the same colors as the pie chart sections would make it easier to compare graphs, and discuss how making the text smaller would allow the full name of each bar to be included.

Answer Key for Example Pie Chart Data Sets

Favorite Book Genres
Number / Genres
Hist Fic, Fantasy, Sci Fi, Nonfic, Real Fic

Favorite School Subjects
Number / Subjects
Science, Math, Reading, Soc Stud

Common Core Standards Addressed

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[1] using information presented in a bar graph.

CCSS.Math.Content.3.MD.B.3 Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs. *For example, draw a bar graph in which each square in the bar graph might represent 5 pets*.

Virginia Standards of Learning Addressed

2.17   The student will use data from experiments to construct picture graphs, pictographs, and bar graphs.

3.17   The student will
       b) construct a line plot, a picture graph, or a bar graph to represent the data;

4.14   The student will collect, organize, display, and interpret data from a variety of graphs.