

Technology Integration Lesson Plan

CONTENT AREA: Math

TOPIC: Graphing Jelly Beans

GRADE LEVEL: 2 **TIME TO COMPLETE:** 45 min in class,
45 min-1 hour in lab

TECHNOLOGY FOCUS/

APPLICATION TEKS: 1 A-C, 2A, 7 B, 10 A-C ,11 A

CONTENT AREA TEKS: Math 2.13 A, 2.11 A-C, Science 2.5 A-B

CONTENT OBJECTIVE(S):

1. Students predict number of each color of jelly bean.
2. Students sort and record data for each color of jelly bean.
3. Students enter data into an Excel spreadsheet.
4. Students create a graph in Excel.

RESOURCES/MATERIALS:

1. Jelly Beans in baggies for each student
2. Pencil and paper to record data
3. Computers with Excel (lab setting)
4. Optional Template file or directions for creating a double-bar graph

LESSON PROCEDURE:

1. Give students a baggie with a variety of colors of jelly beans. Don't eat the jelly beans!
2. Students estimate how many of each color of jelly bean is in the bag. Record estimates on paper.
3. Students sort the jelly beans by color. Record results on paper. (the number of each color)
4. Open the Excel template and enter the data into the spreadsheet table. Or, you may wish to have your students create their own graphs in Excel following the directions linked below.
5. Students analyze the graph and record observations.
6. Students create questions that can be answered with the graph information to share with the class.
7. After the lesson, students may eat the jelly beans!

TYPE(S) OF ASSESSMENT: Completed Graphs in lab plus data information


CREATED BY: Adapted with permission from a lesson by Kathy Adkins, Forsyth County, GA

Spreadsheet Preparation

1. Go to Start, programs, and click Microsoft Excel.
2. In cell A1, type the word color. Press Tab.
3. In cell B1, type the word Prediction.
4. In cell C1, type the word Actual.
5. In cell A2, type the word purple. Press Enter.
6. In cell A3, type the word red. Press Enter.

7. In cell A4, type the word yellow. Press Enter.
8. In cell A5, type the word orange. Press Enter.
9. In cell A6, type the word green. Press Enter.
10. In cell A7, type the word pink. Press Enter.
11. In cell A8, type the word black. Press Enter.
12. In cell A9, type the word Total. Press Enter.


Counting and Recording Data

1. Without opening the bag of jelly beans, or counting them; predict the number that you think there is of each color and record the data in column B.
2. Open the jelly beans and sort them by color.
3. Count the purple ones and type the actual number of purple jelly beans in cell C2.
4. Count the red ones and type the number in cell C3.
5. Count the rest and record your results in column C.
6. Highlight cells B2 to C8. Go to the toolbar and click the AutoSum button.  The total number of jelly beans should appear in the two columns.

Formatting the Chart

1. Highlight cells in your chart A1 to C9. Right click on top of the chart.
2. Click Format Cells from the pop-up menu.
3. Click the Font tab and change to Arial 14.
4. Click the border tab and apply a border. (Click on Outside and Inside buttons.)

Applying the Chart Wizard

1. With your chart data still highlighted, go to the toolbar and click the chart wizard button. 
2. There are four steps. Click Next for Step 1.
3. Step 1 shows all the different graphs. The column graph is highlighted. We will use it.

4. Click Next to go to Step 2. We will stick to these default settings.
5. Click Next to go to Step 3. Under the title tab type in a title such as Colorful Jelly Beans.
6. Type in the word Color for the category of axis x.
7. Type in the word Number for the value of axis y.
8. Click Next to go to step four. Select the As New Sheet.
9. Click Finish.
10. Click on the Sheet 1 tab at the bottom to view your data.

Formatting the Graph

1. Double click on the bar that represents Prediction to highlight all of that color of bar.
2. Click on Fill Effects.
3. Click on the Pattern tab.
4. Choose a pattern with stripes and click okay.
5. Click okay again.
6. Double click on the bar that represents Actual to highlight all of that color of bar.
7. Repeat steps 2 and 3.
8. Choose a pattern with dots in it.
9. Click okay and then okay again.

Adding a Header or Footer

1. Click the magnifying glass to go to Print Preview.
2. Click Setup.
3. Go to the Header/Footer tab.
4. Click Custom Header and add a title. Ex: Colorful Candy
5. Click OK and then select Custom Footer.
6. Type your name for the footer and then click OK. Click close.
7. Save and print your graph.