Subject #7: Math

Project #71: Beginning Graphs in Excel. In this math-Excel lesson, students conduct a random survey, collect data, and create a bar graph of results. Use a template with the topics at the bottom as pictures and numbers along the side as values. Students use the paint bucket to fill in cells much as they did to find the hidden picture in Project 12. This is a great introduction to Excel as well as a collaboration with classroom exploration of math concepts.

Higher-order thinking skills	Technology-specific:	Subject Area/ Learning-specific	Standard: NETS-S
See patterns, interpret facts	*Excel basics, filling cells, adding graphics*	*Math, graphs, charts, problem solving*	*3.b, 4.c*

Grade level: K-2
Prior knowledge: Introduction to Excel, Project 12
Time required: 45 minutes
Software required: Excel
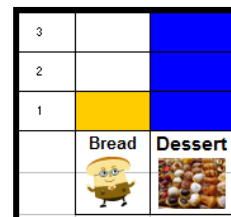Vocabulary: cell, fill, paint bucket, template, survey, data, drop-down arrow

Lesson Description

- Excel is a spreadsheet program used to record/manipulate data and display data (i.e., as graphs, charts, tables, timelines, etc.).
- This project is inquiry-based, student-centered whose user-friendliness helps young learners transition from graphing with manipulatives to graphing in the abstract.

Computer Activity

- Before lab time, students collect class data on a question, i.e., what food groups do students eat. Do this as an exploration of real-world problems and bring the results to computer lab.
- Open Excel. Have parents available to assist young learners open the 'Food Group' template on each computer. Task second graders with opening it themselves from a file folder or an icon on the desktop.
- Take a quick tour of the template. Show students the numbers on the left, the foods at the bottom that correspond with their choices, and the cells above each food type.

- Show students paint bucket fill tool and drop-down arrow beside it. This is where they can select a color. Students will fill in the number of boxes that compare with the data collected using a color of their choice.

- As teacher, you can fill data in on an overhead or a SmartBoard. Ask students what the correct number is, what the correct column is, and fill the data in with your paint bucket. Student can match your work or do it without assistance.
- Make sure students add their names before they print.

Extensions

- Have each student complete their own graph from their own data rather than group data.

Troubleshooting Tips

- *My color is always yellow (use the drop-down arrow by the paint bucket to change colors).*

How Many of Each Food Group?

Food Group	Count
Bread	1
Dessert	3
Fruit	6
Vege's	2
Meat	10
Fish	5
Cereal	8