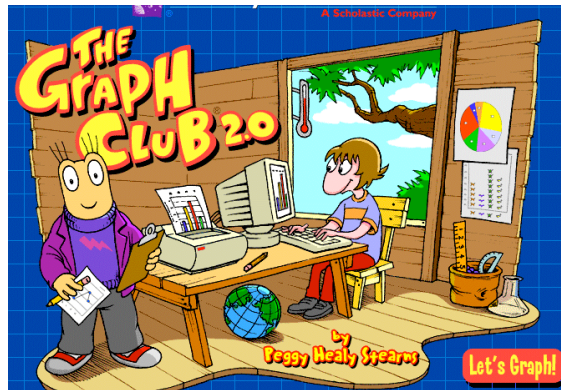


THE GRAPH CLUB

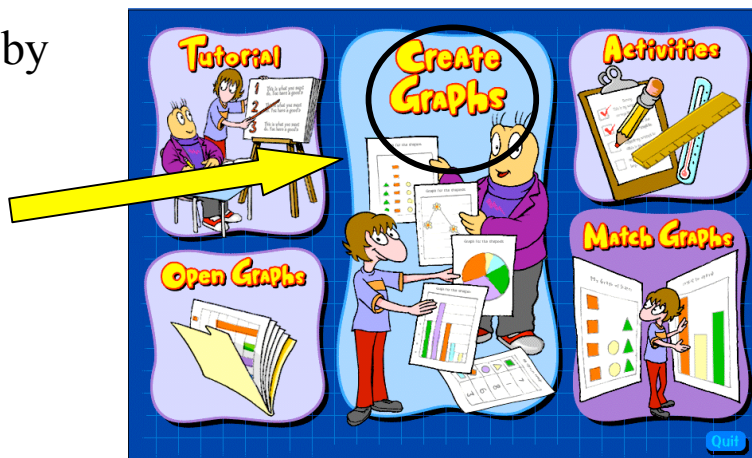


(This sample lesson activity is based on Foss Science Pebbles, Sand and Silt Math extension A, Pg. 30. This could be done with a class, and included in the My School portion of this project.)

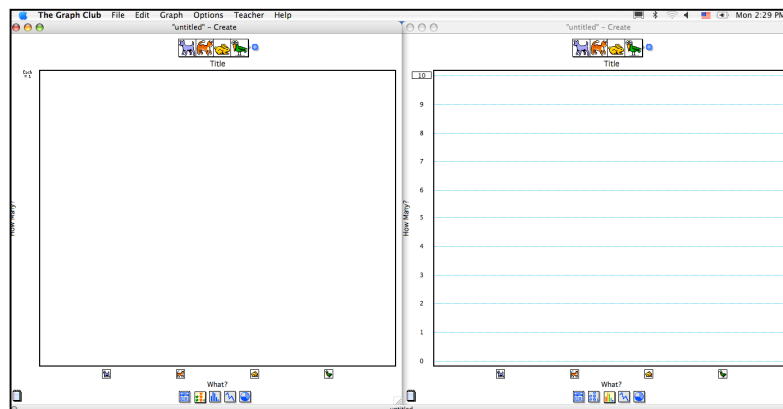
The Graph Club software is full of opportunities for students to graph. By selecting the proper activity, students can either create their own graphs, or choose from a variety of activities in the program.

We will start by selecting

**Create
Graphs**

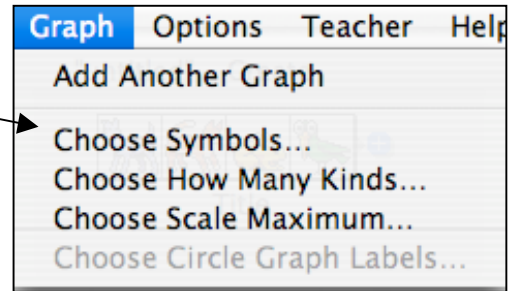


Your graph will open like this. It may have one or two graphs visible when opened. Symbols, labels and values can all be changed to make a custom graph.



Changing Pictures and Labels:

Select Choose Symbols under the Graph Menu,



or click on the **+** at the end of the symbol pictures at the top of the graph to open the symbols library.

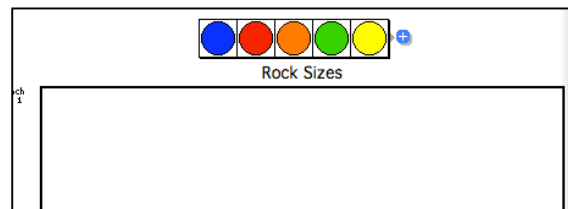


Navigate through tabs to locate pictures that fit your graph. If you don't find what you want, you can always use colors for your symbols. I will choose 5 colors for rock size symbols.

Click on symbol and drag up to replace sample at top. Move arrow to desired number of symbols for your graph. **Click and drag blue, red, orange, green and yellow.** Click **OK** when done.



The top of your graph should now look like this:



To change the labels at the bottom of the graph we will click on each colored dot.

Type LG Pebbles in text box, make sure the dot for text box is selected and click OK.

Repeat for each dot. Change:

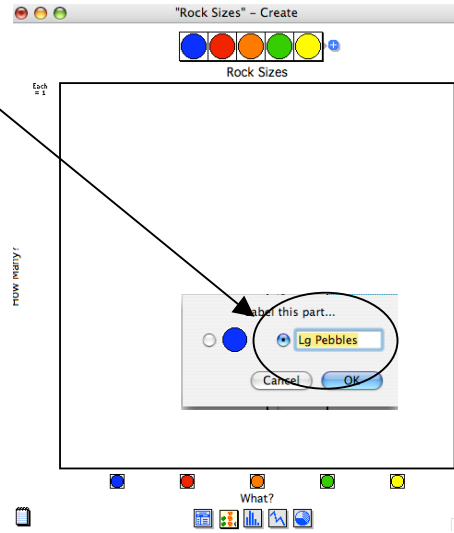
Red to Sm Pebble

Orange to Lg. Gravel

Green to Sm. Gravel

Yellow to Dust

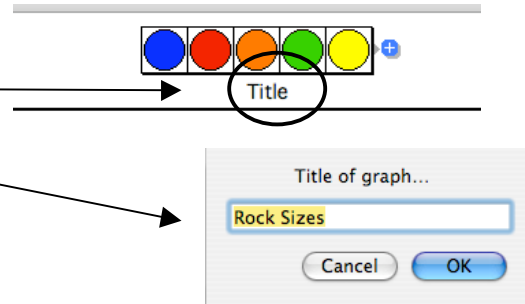
Be sure and click OK each time.



Finally, let's name our graph.

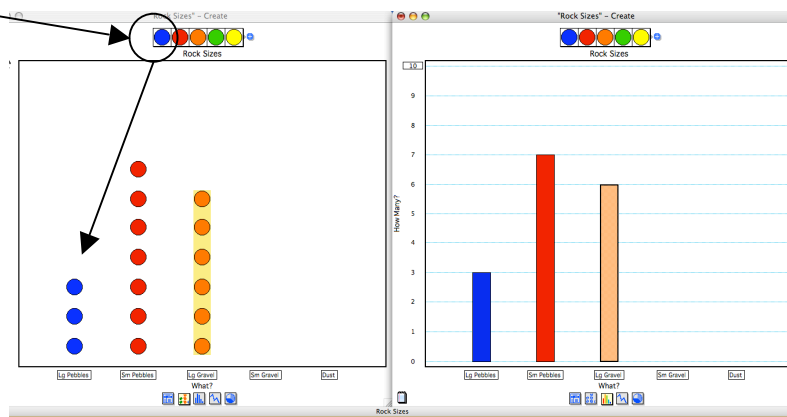
Click on the work Title.

Change name to Rock Sizes and click ok.



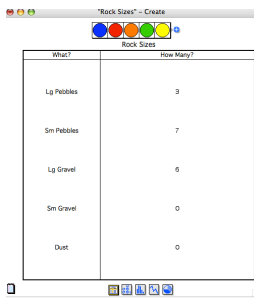
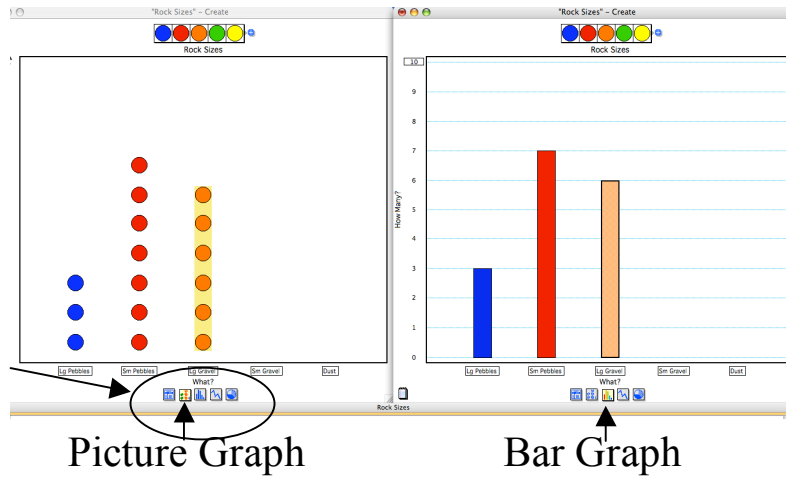
Now, we're ready to graph!

Click on a colored dot across the top. Drag it to the graph, placing it in the column you would like it in. You can click again on the bar (you will see a hand) and drag up to the amount desired.

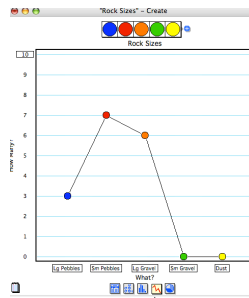


Looking at graphs in different ways

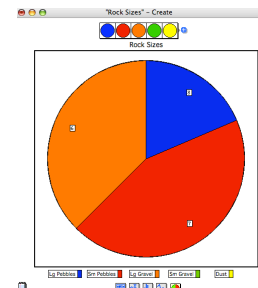
Now that you have entered in the data for your graph, you can use the icons at the bottom to see different vies of your information. Click on each icon to see the different graph.



Data Graph



Line Graph

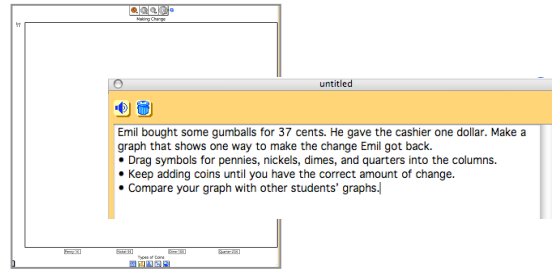
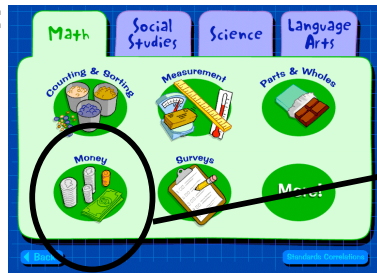


Circle Graph

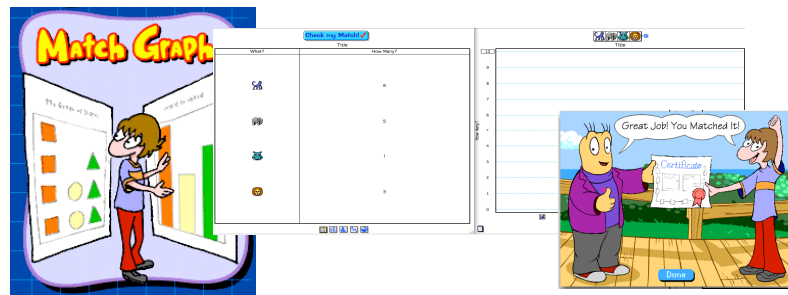
What else can The Graph Club do?

The activities section is filled with several pre-designed activities. You will find activities for several subjects, and categories within those subjects. These activities include student's activities and a graph set up for completion.

Example:



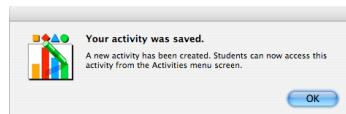
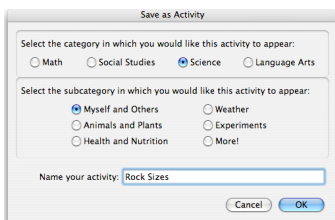
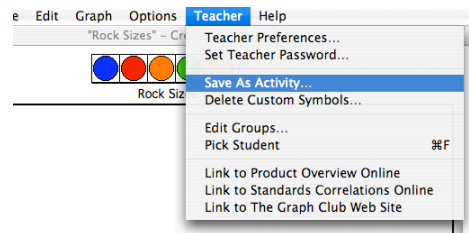
The **Match Graph** allows students to make a matching graph based on the graph style presented. They are rewarded at the end for accurate matches.



Save as Activity

Graphs can be pre-designed and then saved as an activity for future use. Under the Teacher Menu, select Save as Activity.

Select the category you would like it saved in, name the file and click OK. Your activity is now saved!



Math EALRs

1. The student understands and applies the concepts and procedures of mathematics.

- 1.1. Understand and apply concepts and procedures from number sense.
- 1.2. Understand and apply concepts and procedures from measurement.
- 1.3. Understand and apply concepts and procedures from geometric sense.
- 1.4. Understand and apply concepts and procedures from probability and statistics.
- 1.5. Understand and apply concepts and procedures from algebraic sense.

2. The student uses mathematics to define and solve problems.

- 2.1. Understand problems.
- 2.2. Apply strategies to construct solutions.

3. The student uses mathematical reasoning.

- 3.1. Analyze information.
- 3.2. Make predictions, inferences, conjectures, and draw conclusions.
- 3.3. Verify results.

4. The student communicates knowledge and understanding in both everyday and mathematical language.

- 4.1. Gather information.
- 4.2. Organize, represent, and share information.

5. The student understands how mathematical ideas connect within mathematics, to other subject areas, and to real-life situations.

- 5.1. Relate concepts and procedures within mathematics.
- 5.2. Relate mathematical concepts and procedures to other disciplines.
- 5.3. Relate mathematical concepts and procedures to real-world situations.

Technology Standards

Washington's Grade Level Expectations (GLEs) and Their Relationship to Educational Technology

Reading GLE 2.2.2 - Understand features of printed text and electronic sources.

Identify and use icons.

Science GLE 2.1.4 - Modeling: Understand how to use simple models to represent objects, events, systems, and processes.

Investigate phenomena using a simple physical or computer model or simulation.

Science GLE 2.1.5 - Communicating: Understand how to report investigations and explanations of objects, events, systems, and processes.

Summarize an investigation by describing explanations and conclusions in written, mathematical, oral, and information technology presentation formats.

Science GLE 2.2.2 - Limitations of Science and Technology: Understand that scientific facts are measurements and observations of phenomena in the natural world that are repeatable and/or verified by expert scientists.

Describe how new scientific facts are established every day (e.g., find examples of new facts in current media).

Communications GLE 3.1.1 - Understands how to plan for effective oral communication and presentation.

Selects material from a variety of resources (e.g., from a magazine, a video, or the Internet).

Uses notes or other memory aids to structure presentation (e.g., prepared outline, graphic organizers).

Uses planning tools (graphic organizers, notes, drawings) to organize information in a logical sequence using transitions (e.g., chronological order).

Communications GLE 3.2.1 - Understands how to use available relevant media and resources to convey a message or enhance oral presentations.

Uses visual aids with teacher guidance. (e.g., illustrations, photos, bar graphs, line plots, tables, charts and maps).

Uses presentation technology with teacher guidance (e.g., presentation software, digital and video cameras)

Uses reliable online sources with teacher guidance (e.g., Internet, encyclopedias).

Math GLE 1.4.5 - Understand representations of data from line plots and pictographs.

Use technology to create pictographs.

Math GLE 2.2.2 - Apply mathematical tools to solve the problem.

Use appropriate tools to solve problems (e.g., paper and pencil, calculator, or physical models, play money).