

CREATE A GRAPH - IT'S EASY!

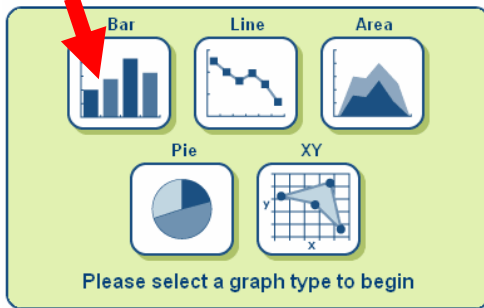
<http://nces.ed.gov/nceskids/createagraph>

Graphs and charts are great because they communicate information visually. Graphs are often used in newspapers, magazines and businesses around the world. Sometimes, information is difficult to understand and needs an illustration. A graph or chart helps impress people by getting your point across quickly and visually.

Kids' Zone's Create a Graph has five different graphs and charts for you to choose from. Use homework problems, things you have a special interest in, or use some of the numbers you find elsewhere on this site. Have fun!

Let's Start With a Bar Graph

1. Click THIS icon.



2. You'll see this:

Click these tabs to design, print and save your graph

See how the tabs *Design, Data, Labels, Preview,* and *Print/Save* will guide you? Creating graphs will be easy!

The **DESIGN** tab is gets you started – make your choices: **DIRECTION, SHAPE,** and **STYLE**

3. The click **DATA**.

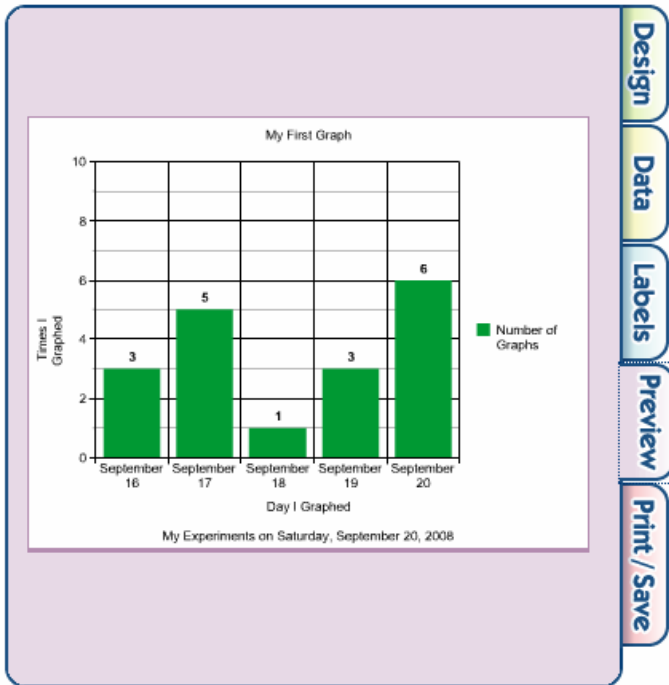
- Name your chart with a **Graph Title**, name your **X-axis** (horizontal) and your **Y-axis** (vertical). (see example box below for information)
- Then identify your **Source** (Example below).
- Use the **Data Set pull-down menus** to select how many **items** and **groups** you wish to use.
- Use the **Color pull-down menu** to select a color for your bars.
- Next, name each item by filling in **the Item Label box** and then that's items data point in the **Value box**.
- Lastly, enter the **Min-Value** (smallest number in you want indicated on graph) and **Max-Value** (largest number).
- The first time you enter information, the program automatically uses your data. If you go back and change your information, be sure to click the **UPDATE** button on the bottom of this dialog box.

| Item Label | Value |
|----------------------|-------|
| Item 1: September 16 | 3 |
| Item 2: September 17 | 5 |
| Item 3: September 18 | 1 |
| Item 4: September 19 | 3 |
| Item 5: September 20 | 6 |

NOTE: Complete text for:

- Source** is: *My Experiments on Saturday, September 20, 2008*
- Group Label** is: *Number of Graphs*

4. Let's see how what we have done so far looks.
Click on the **PREVIEW** tab.



This looks pretty good. Can you clearly see what days I experimented with Create a Graph and how many times I created graphs on each day?

In this case, I don't believe we need any more labels to make the information we are sharing easier to understand. I believe that adding more labels and text to this graph will make it harder to read.

Remember, when making graphs, the idea is to make information clear and easy to understand. When a graph becomes complex and hard to read, then it might be better to present the information in a different manner.

5. Click on the PRINT/SAVE tab.

Now Let's Try Another

You can begin by clicking **START A NEW GRAPH** from the **PRINT/SAVE** tab.

DESIGN TAB

- **Direction:** Horizontal
- **Shape:** Diamond Shape
- **Style:** YOUR CHOICE!

DATA TAB

- **Graph Title:** Federal Hamburger Audit Report
- **X-Axis Label:** Days of the Week
- **Y-Axis Label:** Number of Hamburgers YOUR NAME Ate During Week of September 7-13, 2008
- **Source:** Weekly Hamburger Log
- **Data Set:** 7 Items **Groups 1**
- **Group Label:** Daily Hamburger Consumption
- **Color:** YOUR CHOICE!

| | Item Label | Value |
|---|-----------------|-------|
| • | Item 1: Sept 7 | 12 |
| | Item 2: Sept 8 | 6 |
| | Item 3: Sept 9 | 4 |
| | Item 4: Sept 10 | 15 |
| | Item 5: Sept 11 | 2 |
| | Item 6: Sept 12 | 1 |
| | Item 7: Sept 13 | 7 |

- **Min-Val** (where our Y-Axis starts): 0
- **Max-Val** (where our Y Axis ends): 20

Tips & Tricks

- Be careful with **3-D graphs**. Many will find them hard to read – for clarity, probably best not to use.
- Choose Min-Value and Max-Value carefully. These determine the beginning and end of the y-axis and whether the numbers are whole harder-to-interpret decimals.
- Be careful with shapes. When 3-dimensional, the shape can make it hard to determine where the bar ends, misleading the reader.
- Be careful with groupings (we used 1 in the **Data tab** of these graphs). Instead of putting groups on 1 graph, it might be better to make a set of graphs.
- You can use the **Label tab** to select different fonts and text colors.
- Remember, some people do not see colors well – choose colors that everyone can read. Color printers will print different colors than you see on the screen.
- Don't use any more labels than needed. We did not use any in the **Label tab** in both of our examples.
- **EXPERIMENT** as you try different graphs and learn how to use this site. The **PREVIEW** tab lets you quickly see how you are doing.