

<b>CA – 6 Graphing Data</b>	<b>Communication Arts Embedded Credit</b>
<b>Arcadia Valley Career and Technology Center</b>	<b>Last Update: September 2004</b>
<b>Honors Grade – No Distinction</b>	<b>Passing Grade – No Distinction</b>

**OBJECTIVE: Student will accurately represent data by graphical form and provide a written explanation of the data and its interpretation.**

**Introduction:**

Representing data in graphical form is vital to ‘seeing the big picture’. Numbers and bits of information are often meaningless until they are placed in a graphical representation. Today’s marketing and quality control data is often represented in graphical form to allow more consumers to see the advantage of a particular product over another similar product. Graduates of the Arcadia Valley Career and Technology Center will be able to represent data in graphical representations.

Students are required to complete a graphical representation using raw data prior to graduation from their vocational program. The following lesson utilizes a United States Government Website to create a graphical representation that will successfully complete the requirements for the Embedded Credit in the area of Communication Arts.

Students may also utilize their own resources for making a graphical representation. The important components of a student’s project are:

1. Finding/Creating Raw Data
2. Creating a Graph with a Professional Appearance
3. Providing an Accurate Representation of the Data
4. Providing an Appropriate Written Summary of the Data and What the Graph Represents

The first step in completing the graphical representation is to obtain raw data from a source relevant to what you are trying to communicate. After the raw data is collected the student needs to input the data into a graph format. There are four main types of graphs: Bar Graph; Pie Graph; Line Graph; and an Area Graph.

Each of the graph types is included for you to show the class. An example of the necessary work to complete this assignment is also included for you to review with the class. An easy way to create a graph for this assignment is included for you to share with the students.

### **Step-By-Step Instructions for Completing Graph Using a Government Website:**

1. Logon at a computer.
2. Type the following address in the computer: <http://nces.ed.gov/ncekids/graphing>
3. Select a graph type for your data.
4. Select “Click Here to Create a \_\_\_\_\_”.
5. Read through all of the instructions.
6. Give the graph a title.
7. Enter the data for plotting.
8. Make sure that you have selected one of the two largest sizes for your graph.
9. Make sure that you select “JPEG” for your graphical representation.
10. Select “Create Your Graph”
11. Print a Copy of the Graph IMMEDIATELY. If you go back all of the data will have to be entered a second time.
12. Write a summary of your graph and turn both the summary and your graph into your instructor.

Your Name  
Your Class  
Date

Graphing Data  
Comm. Arts Credit

The graph I prepared represents the information I obtained when surveying 100 students in the vocational school about the enthusiasm that they have for completing the possible Communication Arts Embedded Credit now offered by the Arcadia Valley Career and Technology Center. On Thursday, September 23, 2004, I was permitted to survey 100 students of the Arcadia Valley Career and Technology Center about whether they were sure that they wanted to complete the 'new' Communication Arts Embedded Credit.

During the morning and afternoon breaks I surveyed 100 different students giving them the following question:

*“Using the following scale how would you rate your feelings about completing the ‘new’ Communication Arts Embedded Credit.*

*Very Sure I Will*

*Somewhat Sure I Will*

*Sure I Will*

*Somewhat Unsure I Will*

*Very Unsure I Will”*

Of the 100 students surveyed, 56 said they were 'very sure' they would complete the credit (or 56%); 21 said they were 'somewhat sure' they would complete the credit (or 21%); 18 said they were 'sure' they would complete the credit (or 18%); 3 said they were 'somewhat unsure' they would

complete the credit (or 3%); and 2 students said they were 'very unsure' they would complete the credit (or 2%).

I would conclude from this survey that students are generally in favor of the new program and they see many benefits for individual students regarding this program. The information, however, is only based on a single question and should be cautiously viewed. Too often a bigger conclusion is drawn from a minimal amount of information.

The students selected were randomly chosen from those students who spend time in the hallways during the morning and afternoon breaks. About 60% of the respondents were spoken to in the morning and 40% were spoken to in the afternoon. It was not determined whether students were in their Junior or Senior year and/or whether they were from each of the vocational classes taught in the Arcadia Valley Career and Technology Center facility. I cautiously recommend the conclusion that the data shows that Arcadia Valley Career and Technology Center students welcome the 'new' opportunity available for obtaining an elective credit in Communication Arts from their vocational classes.