


Educational Application of Word- Lesson handout for computer lab

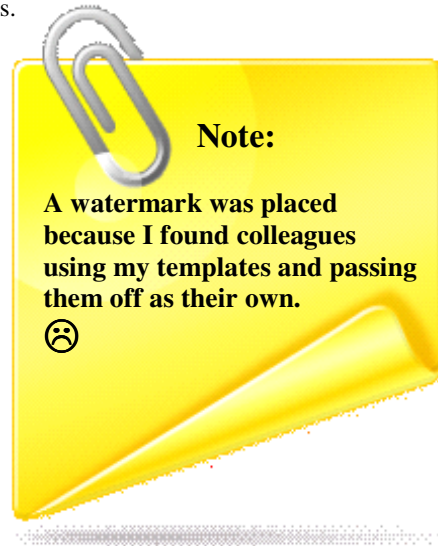
Educational Concern- Students having multiple levels of independence and experience on a website and computer program. When a group of students are put in a computer lab, it can be difficult to run a smooth lesson depending on the various levels of comfort in front of a computer. In order to ensure success for each student, providing a handout with screen shots and instructions can help students work at their own pace while allowing me to work more closely with just the students who struggle.

Scenario- I will be taking my students to the computer lab to work on graphing discoveries using virtual manipulatives. The website they will be visiting is www.nlvm.usu.edu. In order to fulfill the learning needs of the students I have two options:

1. Shout and lecture over a group of students focused on a computer in hopes they are auditory learners –OR-
2. Provide them with a template they can follow while they are in the lab so they can work independently.

I am going with option number two. I will provide my students with a handout containing visuals and instructions so they can move at their own pace. Students will also be given two post-its, one **yellow** and one **red**. A student will stick the **yellow** post-it up on the top of the monitor to communicate, “I am having trouble, but it is not an emergency.” This is a student who can potentially do something else while waiting for me to get to them. A student will stick a **red** post-it up on the monitor to communicate, “I am completely stuck and have no idea what I am doing. Need help NOW.” 

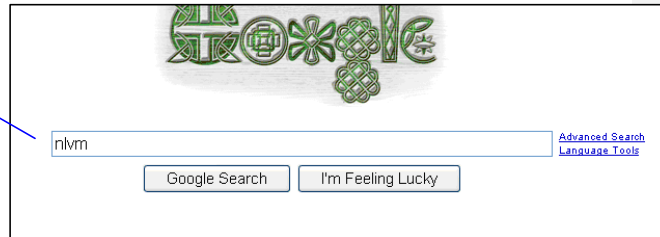
Providing these forms of communication allows me to control the noise level and focus on the students that need my assistance. The template encourages students to work both independently and ask their peers questions. It also gives them opportunities to use their referencing strategies. Handouts also work as communication tools by providing question prompts and showing rubrics.



Getting started– Follow the 5 steps below to get yourself started on your graphing discoveries!

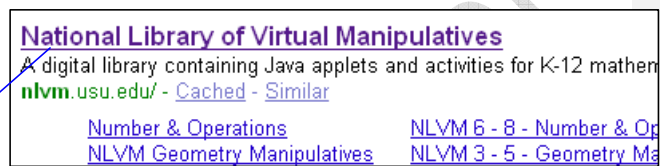
STEP 1

Go to Google.com
Type in NLVM
Hit search



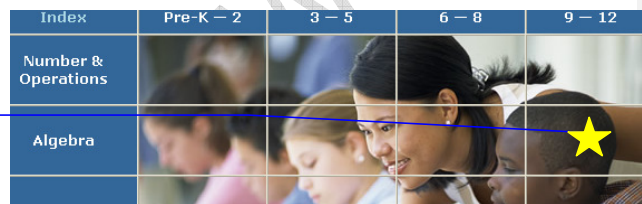
STEP 2

Click on the first option that looks like this picture.



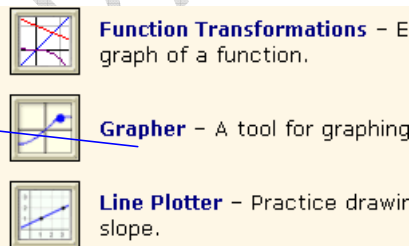
STEP 3

Choose the box for Algebra 9 – 12 (where my star is)



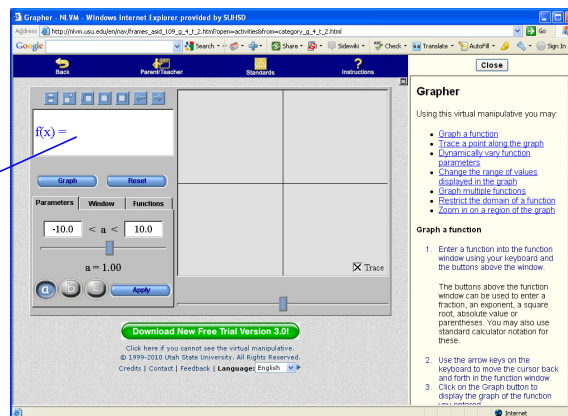
STEP 4

On the list of activities, click on the GRAPHER



STEP 5

In the space provided, make sure yours says $f(x) = ax^2 + bx + c$



Time to Make Your Graphing Discoveries

Use the table below to guide you through your inquiry.



	Directions	Visual	Answer these Questions
DISCOVERY # 1	Click on B and put it at 0. Click Apply. Click on C and put it at 0 Click Apply. Click on A. Scroll back and forth over positive and negative numbers.		What happens to the graph when: A is positive? A is negative?
DISCOVERY # 2	Click on A and put it at 1 Click Apply. Click on C and put it at 0 Click Apply. Click on B. Scroll back and forth over positive and negative numbers.		What happens to the graph when: B is positive? B is negative?
DISCOVERY # 3	Click on A and put it at 1 Click Apply. Click on B and put it at 0 Click Apply. Click on C. Scroll back and forth over positive and negative numbers.		What happens to the graph when: C is positive? C is negative?
DISCOVERY # 4	Click on A and choose any positive number. Click Apply Click on B and choose any negative number. Click Apply Click on C and choose any negative number		A = _____ B = _____ C = _____ Describe what your graph looks like.
DISCOVERY # 5	Choose any numbers you like for A, B, and C. (make sure they are different) Click Apply.		A = _____ B = _____ C = _____ Describe what your graph looks like.

Comment [JW1]: Students can also add a drawing of their graph.

Comment [JW2]: Students can also add a drawing of their graph.

Reflection of Learning

Answer the questions below in complete sentences.

1. How was this activity helpful for understanding graphs of quadratics?

2. Which parts of this activity were difficult to complete?

3. How was this handout helpful to your use of this website?

4. How can this handout be changed to make it more effective?

5. Please provide any other comments below.

NOW YOU ARE ALL FINISHED!

LOOK AT THE RUBRIC BELOW TO CHECK TO SEE HOW YOU WILL BE GRADED.

Rubric

	4	3	2	1
Completeness	All table and reflection questions are answered.	Most table and most reflection questions are answered.	Some table and most reflection questions are answered.	Few table and few reflection questions are answered.
Accuracy	All answers and descriptions in the table are correct.	Most answers and descriptions in the table are correct.	Some answers and descriptions in the table are correct.	Few answers and descriptions in the table are correct.
Procedures	All procedures were followed including use of post-its, using handout, and remaining on task and visiting only the required website.	Post-its used correctly, handout followed, mostly on task, visiting only required website.	Post-its mostly used correctly, handout followed, sometimes on task, visited other websites.	Post-its not used correctly, handout loosely followed, rarely on task, visited other websites.
Grade	<u>Total:</u> / 12 <u>Percent:</u> <u>Letter Grade:</u>			