



# Quick Start Guide

a brief introduction  
to the eNLVM



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# Introduction

The eNLVM (Enhanced National Library of Virtual Manipulatives) is a website containing interactive online math lessons that can be freely used and adapted. The online lessons utilize interactive software from the National Library of Virtual Manipulatives (NLVM) and other websites.

The eNLVM website provides tools teachers can use to view work that students have done while working online. This *Quick Start Guide* is designed to give you a brief, hands-on introduction to using the eNLVM. It covers the following topics:

- Using the eNLVM as a student
- Registering to use the eNLVM as a teacher
- Setting up materials to use with your class
- Viewing student answers
- Customizing lessons and activities
- Creating lessons and activities

## Using This Guide

This *Quick Start Guide* contains instructions to help you get started using eNLVM.

The instructions in this guide are general and do not apply to specific classes and situations. However, for instructional purposes some specific examples for you to follow have been included.

Detailed information in this guide is written in the text at the left, like this.

Specific examples and instructions for the activities in this guide are written in gray boxes, like this.

# Using the eNLVM as a Student

Follow the instructions in this section to see and use the eNLVM site as a student would.

1. Open the eNLVM home page in a web browser (<http://enlvm.usu.edu/>).

Go to  
<http://enlvm.usu.edu/>.



Java and JavaScript should be enabled in the browser. If necessary, go to <http://java.sun.com/> to download Java.

2. Choose a school from the drop-down list on the left side of the eNLVM home page.

Choose the school named *Workshop*.

(If no one from your school has set up classes in the eNLVM, your school will not yet be listed.)

3. Choose your class from the list of available classes at your school. (Your class will not appear until you, the instructor, have registered and set up a class.)

Choose the class named *Math 5* or *Geometry*.

4. You will see a login screen. Click on a student number or login name from the list on the left side of the screen.

Choose the student named *<guest>*.

Students are typically identified by number (Student 1, Student 2, etc.) rather than name to preserve confidentiality. To track progress, teachers assign students numbers.

5. Enter a password. If this is the first time students are logging in, they must set and confirm their passwords on this screen. Teachers may reset passwords. No password is needed for guest access.

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6. Click *Login*.

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7. You should see an outline of the class you logged into. Click on a lesson to begin an activity.

Click on a lesson.

8. You will see a screen that may contain activities, instructions, and/or questions. Complete the activities as specified in the instructions. Continue working through the lesson outline.

Follow the instructions and complete the activities.

# Registering as a Teacher

Follow the steps in this section to register as a teacher to use the eNLVM. Registration allows you to organize online materials for your class and track your students' work.

1. Open the eNLVM home page in a web browser (<http://enlvm.usu.edu/>).
2. Click on the *Register* link at the bottom right of the screen.
3. Choose the school where you teach.

If your school is not listed, click *Add a School* and specify the name of your school.

4. Enter your information in the fields provided and click *Register*.

An email will be sent to the address you provided to remind you of your login information.

5. You will see a page confirming your registration.

The confirmation page includes a link to a page describing the structure of eNLVM resources. Please follow the link and take a minute to read the information page.

A default class will have been created for you. The default class has 40 students.

Students can now access your class from the eNLVM home page when they choose your school.

Go to  
<http://enlvm.usu.edu/>.

Choose or add your  
school.



Enter your information  
and click *Register*.

Follow a link on the  
confirmation page to read  
about the structure of  
eNLVM resources.



# Setting Up Your Class

1. Open the eNLVM home page in a web browser (<http://enlvm.usu.edu/>). Login as a teacher.
2. You will see that a new class with your name has been set up for you. You can choose to delete this class, take it offline, edit it, or preview it as a student.

Login as a teacher to <http://enlvm.usu.edu/>.

-  Click the X icon to delete the class.
-  Click the circle icon to take the class offline or put it back online. When the icon is green, your class is online. When it is red, your class is offline.

Take your class offline to keep it available to you for editing but to keep students from accessing it. When you put the class back online, students will be able to access it again.

-  Click the pencil icon to edit your class.
-  Click the magnifying glass icon to preview your class or view it as a student would see it.

3. To add more classes, click the *Create a New Class* button.

## Browsing Available Resources

1. While logged in, click the link to the eNLVM Home page.
2. On the Home page, click *Browse Available Resources*.
3. You will see a list of the types of resources you can browse.

Go to the eNLVM Home page.



The screenshot shows the eNLVM website interface. At the top, there is a navigation bar with the eNLVM logo, Utah State University logo, and a sun icon. Below the navigation bar, the text "interactive online math lessons" is displayed. The main content area is titled "Home > Browse Available Resources" and features three columns of resource categories:

- Browse By Course:** Includes a thumbnail of a book and the text "Browse eModules (learning units) indexed by course".
- Browse NLVM Activities:** Includes a thumbnail of two people and the text "Browse and customize activities from the National Library of Virtual Manipulatives".
- Browse By School:** Includes a thumbnail of a school building and the text "Browse lessons created by other teachers".

- *Browse By Course* lets you browse eModules indexed according to course level. eModules are online units that target specific objectives and include lesson plans, learning activities, and quizzes.
  - *Browse NLVM Activities* lets you browse virtual manipulatives and activities in the NLVM.
  - *Browse By School* lets you browse lessons created by other teachers and published for general use.
4. If you click *Browse By Course*, you will see a list of courses. Choose a course you teach.
  5. You will see a list of online lessons (eModules) appropriate for your course. Click on an eModule to view its outline. To begin previewing the eModule, click on one of the blue lesson links.



Click *Browse By Course*; then select *Math 7*.

Select the “Geometric Transformations” eModule and click the *Introduction* lesson under “Rotations.” Click through several activities and then click the *Go Back* button to return to the eModule outline.

6. If you decide to use all or part of the eModule in your class, go back to the eModule outline and select the checkboxes of the lessons you wish to use. Then click the *Use Selected Lessons* button.
7. Click on the class you want to copy the eModule to or click *Create a New Class for the Lessons*.

The selected lessons will be copied into the class you select. You can then customize or extend them to suit the needs of your class.

Click the *Use Selected Lessons* button.

Select the default class that was created for you upon registration.

# Viewing Student Answers

Teachers can view work their students have completed using the eNLVM. Similar to paper-based materials, teachers may not want to view everything every student does, but may choose to spot check specific items, including assessments. Follow the instructions below to view students' work.

1. Open the eNLVM home page in a web browser (<http://enlvm.usu.edu/>).
2. On the right side of the eNLVM home page, login by entering the email address and password you used when you registered with the eNLVM.
3. You will see a list of your classes. Click on a class.
4. You will see an outline of the lessons in the class. Make sure the eNLVM is in *Grade* mode by clicking the *Grade* link at the top right of the page, and then click on the table icon next to a lesson to view a summary table of student answers.

Mr. Smith's Class [View](#) | [Grade](#) | [Edit](#)

Each row in the table contains the answers for a given student. The student's number is shown in the first column. The columns containing blue links represent pages in the lesson. The columns following contain the students' answers entered on that page.

5. Go to the row for any given student and click on one of the blue page links to see a student's answers in the context of the page. You can also access this view by clicking on lesson in the class outline when you are viewing the class in *Grade* mode.
  - a. On pages that contain entry boxes or other response controls, student answers are displayed, with the student's number, in place of those controls. Answers that match the key are shown in green.
  - b. If the page contains an activity that asks students to submit work done in an applet, the students' work is displayed.
6. Use the *Activity* drop-down list and the *Previous* and *Next* buttons to move between pages. Use the *Student* drop-down list to view the answers for all students or for one particular student, and use the < and > buttons to move between students.
7. Click the *Go Back* button to return to the class outline.

Logout and then login again with the email: *quick.start@enlvm.usu.edu* and the password *teacher*.

Choose *Mr. Smith's Class*.

Click the *Grade* link in the top right-hand corner, then click the table icon next to the section named *Subtracting Integers*.

Click on the blue link to page 3 in the third row to view student 1's answers to question 3 in context of the activity.

Select "All" from the *Student* drop-down list (at the top of the page) to view a list of all student answers to the question.

# Customizing Lessons and Activities

Content in the eNLVM can be customized to meet the needs of your class. To customize content:

1. Login to the eNLVM as a teacher.
2. Select the class to customize.
3. Switch the eNLVM to *Edit* mode by clicking the *Edit* link in the top-right corner of the screen.

Login as a teacher to <http://enlvm.usu.edu/>.





Select the class created for you at registration.

Probability and Relative Frequency

View | Grade | Edit

Switch the eNLVM to *Edit* mode by clicking the *Edit* link.

4. In edit mode, each lesson within the class outline will appear with a row of icons next to it. You can delete, take offline, reposition, or preview a lesson by clicking the appropriate icon:

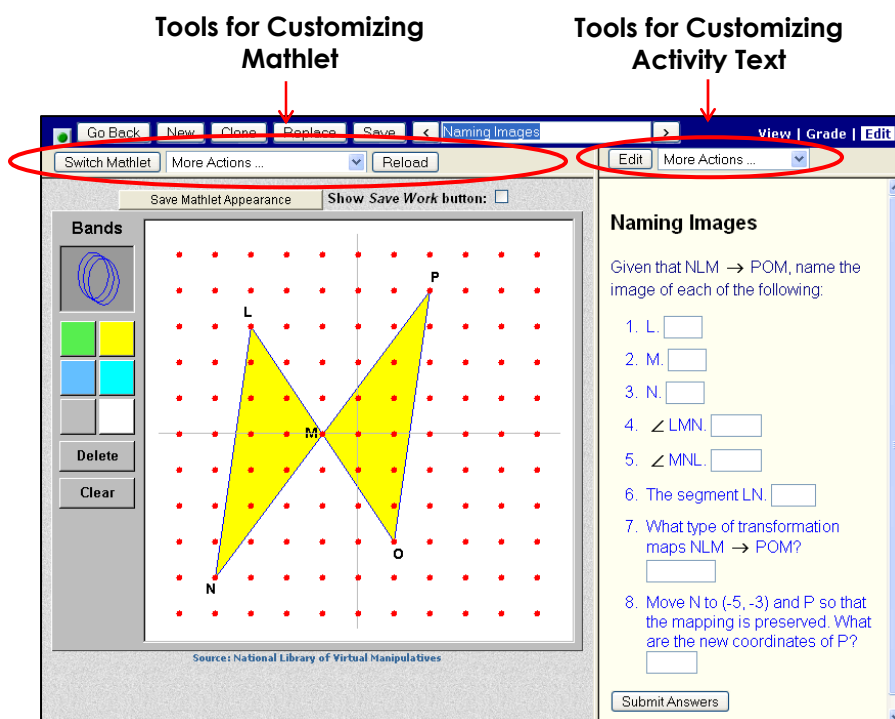
-  Click the X icon to delete the lesson from the class.
-  Click the circle icon to take the lesson offline. When a lesson is offline, students cannot see or access it, but you can. To put the lesson back online, click the circle icon again. A green circle indicates the lesson is online, while a red circle indicates it is offline.
-  To change the organization of lessons within the class outline, click the arrow icons.
-  Click the magnifying glass icon to preview the lesson as a student would see it.

5. Click on one of the lesson titles to view and edit the lesson. You will see the list of activities contained in the lesson.
6. To view and edit an activity, click the activity title. You will see the activity as a student would see it, except that you will have access to tools for customizing the activity.

Select the *Practice* lesson under “Mappings” (part of the “Geometric Transformations” eModule you added previously).

Select the *Naming Images* Activity.

7. As shown in the figure, the toolbars appearing above an activity may be used to customize the activity text or the mathlet used in the activity.



8. Click the *Edit* button above the text frame to customize the activity text. This will activate a text editor, which allows you to type, delete, and format text directly within the text frame, much as you would using a word processor.
9. Click the *Save* button to save your changes. It is a good idea to save your work frequently, especially before you move from one activity to another.
10. At any time you may view the activity as a student would see it. Simply click the *View* link in the top-right corner of the screen.


You may also switch to *Grade* mode by clicking the *Grade* link, or switch back to *Edit* mode by clicking the *Edit* link. You will be prompted to save changes if you haven't already whenever you leave *Edit* mode.

Click the *Edit* button above the text frame, place the cursor anywhere in the text frame, and type eNLVM.

Save your changes, then click the *View* link in the top-right corner of the screen to see the activity as a student would see it.

# Creating Lessons and Activities

In addition to customizing existing lessons and activities, you can create new ones.

1. Login to the eNLVM as a teacher.
2. Select the class you wish to add a lesson to.
3. Switch to *Edit* mode by clicking the *Edit* link at the top-right corner of the screen.
4. Click the *Add Lesson* button.
5. In the popup window that appears, provide a name for the lesson and specify where in the class outline you want it to go. Remember that you can reposition the lesson after it has been added using the arrow icons (  ).
6. Click the *Add* button. The lesson will be added to the class outline.
7. To begin adding activities to the lesson, click on the lesson title. Once you are within the lesson, click the *Add Activity* button.
8. Click on the type of activity you wish to create. Your options are *Mathlet Only*, *Mathlet and Text*, and *Text Only*.

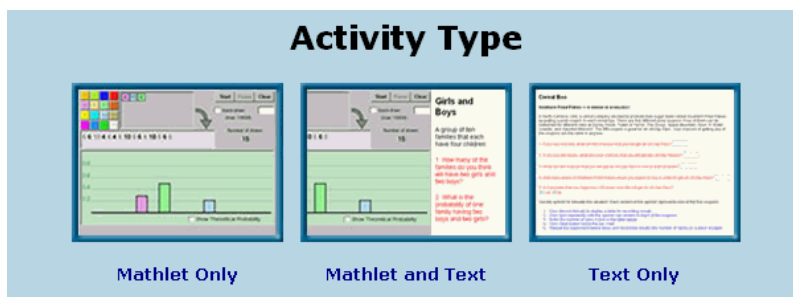
Login as a teacher to <http://enlvm.usu.edu/> and select the class created for you at registration.

Click the *Edit* link at the top-right corner of the screen.

Click the *Add Lesson* button and name the new lesson “Practice.” Position it after the last lesson in the class outline.

Click on the lesson title, then click *Add Activity*.

Select the *Mathlet and Text* activity type.

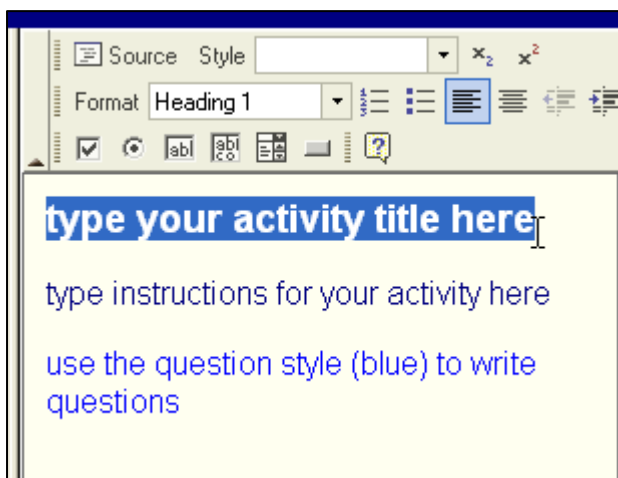


9. A *Mathlet and Text* activity is divided into two frames. The frame on the left is for the mathlet and the frame on the right is for the text.

In the mathlet frame, select a mathlet from the NLVM or enter the URL of an external resource to link to. You will see a list of websites that provide interactive math resources. Be sure to read the screen text regarding permissions before you link to any external resource.

Click the *National Library of Virtual Manipulatives* link and select the “Bar Chart” mathlet from the list.

10. In the text frame, click *Use an online editor* to begin adding and formatting text for the activity. This will activate the eNLVM text editor.
11. Highlight the “type your activity title here” text and type a new title for the activity.



Click the *Edit* button above the text frame. Highlight the activity title and type *Practice Activity*.


12. Type instructions for the activity in place of the dark blue text, followed by questions in place of the light blue text.


As you type, you may use the “Style” and “Format” drop-down menus to apply special formatting (such as bold or italic text, headings, etc.).

Highlight the dark blue text and type whatever comes to mind. Type a question in place of the light blue text.

13. Add a response control for collecting student answers by clicking one of the response-control icons in the text-editor toolbar. A dialogue box will appear. Provide the information requested and click *OK*.



Place the cursor below the blue question text and click the “Text Field” response-control icon () . Type “Practice” in the “Display Name” field; then click “OK.”

14. Add a *Submit Answers* button by clicking the button icon () . Make sure “Submit Answers” appears in the “Button Label” field of the dialogue box, then click *OK*.

Click the button icon and add a *Submit Answers* button.

15. Type a name for the activity in the field at the top of the screen.



16. When you have finished designing the activity, click the *Save* button to save your work.

# Creating an Answer Key

As a teacher, you can modify or create an answer key for any lesson or activity in the eNLVM.

1. Once you have finished designing or editing an activity, save your changes and then switch the eNLVM to *Grade* mode by clicking the *Grade* link in the top-right corner of the screen.
2. Go to the “Student” drop-down menu and select “Key.”
3. Enter the correct response (or revise the existing response) in each of the response controls (a.k.a. fields, radio buttons, checkboxes, etc.) of the activity.
4. When you have finished entering correct responses, click the *Submit Answers* button. The correct answers will be saved in the answer key, and you will be able to view them whenever you view the activity in *Grade* mode or view the student answer table.

The screenshot shows the eNLVM interface in 'Grade' mode. At the top, there are navigation buttons: 'Previous', 'Next', 'Student: Key', and 'View | Grade | Edit'. The 'Student' dropdown menu is highlighted with a red circle. Below the navigation bar, the activity title 'Reflection' is displayed. The question is 'What do the two scenarios just presented have in common?'. The answer field contains the text 'They both have to do with unpredictable events and the chances that they will occur.' Below the answer field is a 'Submit Answer' button.

5. Repeat this process for each of the activities in the lesson.

Login as a teacher to <http://enlvm.usu.edu/> and select the class created for you at registration

Login as a teacher to <http://enlvm.usu.edu/> and select the class created for you at registration

Select the *Practice* lesson under “Translations” (part of the “Geometric Transformations” eModule you added previously).

Make sure the eNLVM is in grade mode.

Select “Key” from the “Student” drop-down menu.

In the second response control (under explain), replace the current answer with an answer of your own.

Click the *Submit Answers* button.