

Adapting an Activity: Making It Your Own

How to use the Molecular Workbench authoring environment to modify an existing activity

Many Molecular Workbench activities can be easily altered by teachers and curriculum writers so that they fit the needs of particular classes. Some activities in our database, however, have been programmed to make them more effective. These cannot be changed.

1. Find an activity to modify and open it

Either A. Go to the Molecular Workbench Home Page->Library of Models/Activity Center and select one that interests you,



or

B. go to the Molit database

<http://molit.concord.org/database/browse/everything-list/>

And pick an activity marked "editable".



Browsing Everything

The following are all of the activities, from all categories and more. The models are not sequentially numbered; gaps in numbering are intentional. There are **153** activities total. Displaying activities **1** through **10**.

Activity List

- [A Comparison of Liquid and Gas States](#)
- [Activation Energy \[advanced\]](#)
- [Active Filters \(demo\)](#)
- [Air Filtration](#)
- [Amino Acids and Water: 20 Alanine Model](#)
- [Aquatic Solutions and Our Cells \(Five-day unit\)](#)
- [Atomic Mass and Melting Point](#)
- [Atomic Structure](#)
- [Attractive Forces and Phase Change: \(Atoms in Motion\)](#)
- [Biologica \(Entire module\)](#)



[View Complete List](#) | [View All](#) | **Previous 10 Activities** | [Next](#)

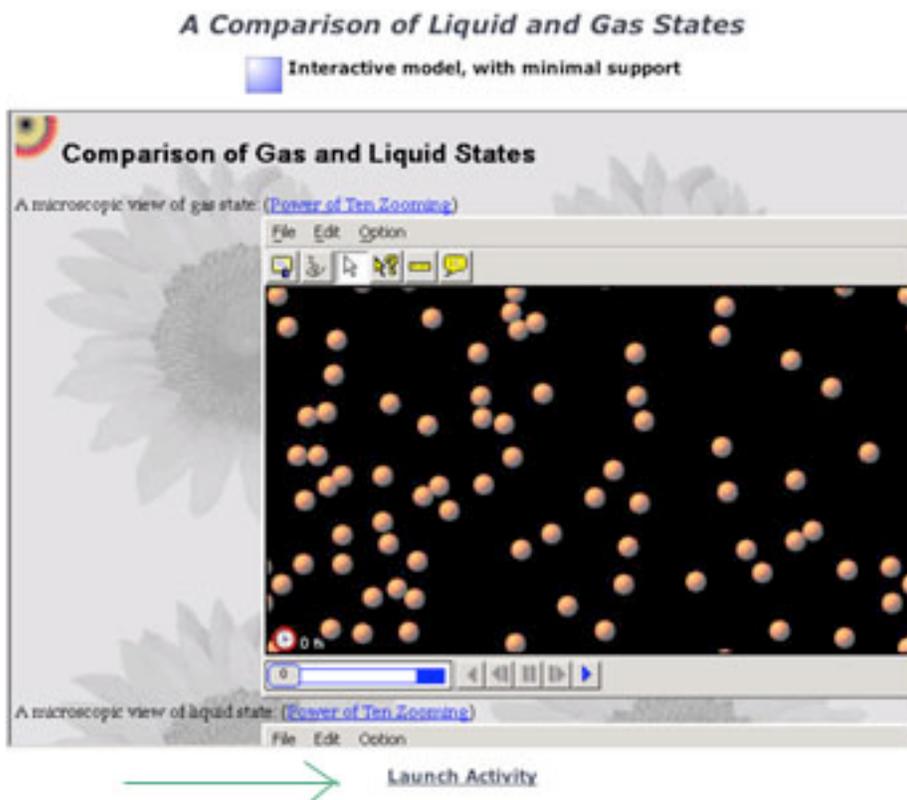
Editable activities will be marked at the top of the activity with an icon:



We suggest for the purpose of this lesson you use something as simple as A Comparison of Liquid and Gas States

<http://molit.concord.org/database/activities/201.html>

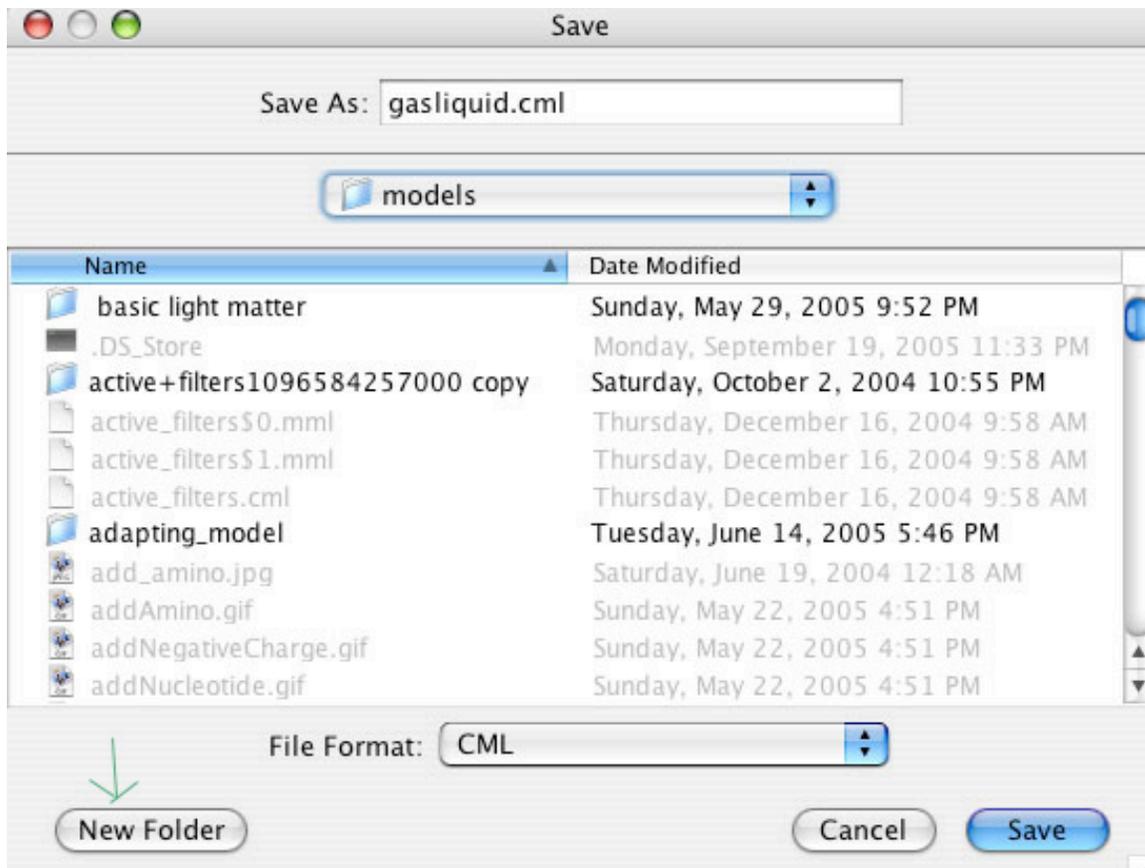
2. Open/launch the activity.



3. Save your own copy of the activity into a folder

Make a new folder for the activity in an easy-to-find place, and save the activity within it. Click the Save button in the menu bar. MW activities are made up of many files. The text and layout of each page is stored in a .cml file, and each model is stored in a .mml file.

More details: [User's Guide on Saving](#) (This will open the Molecular Workbench)



Switch to Editor mode

Once you have saved the activity, an Editor button will appear at the top left.



Click on the Editor button, on the left side of the tool bar. It will open. This button lets you toggle between editing and viewing activities. In editor mode, almost all activity components still work, but you can edit any item on the page.

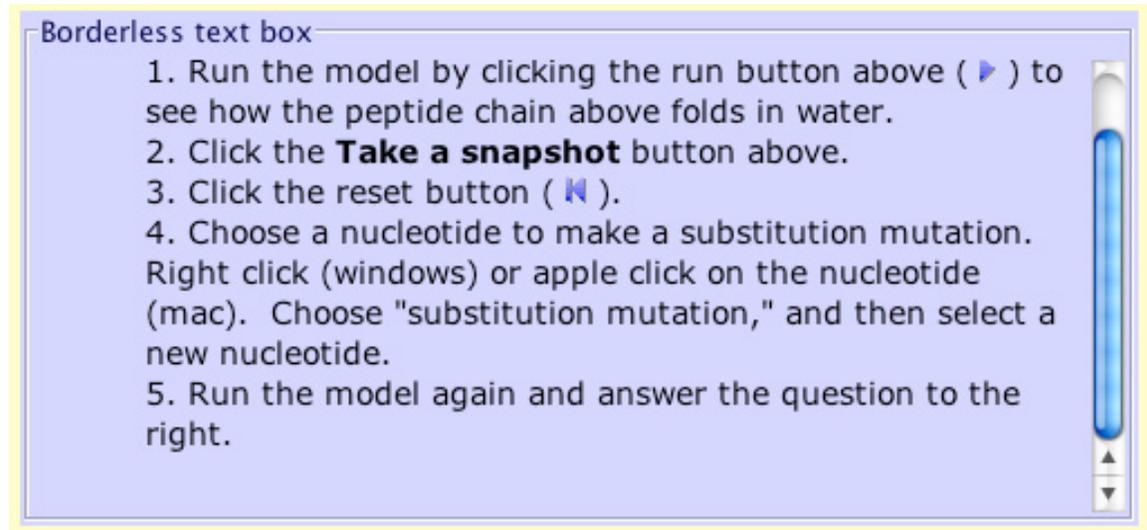
Edit the text

MW's editor is a bit like Microsoft Word. For example, you can select some text and delete it, then type in some new text. Easy! You can even undo if you make a mistake (*Edit*->*Undo*). Also, try out the text formatting options in the tool bar.

More details: [User's Guide on Editing Text](#)

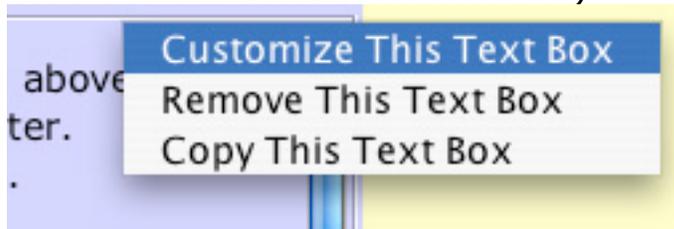
What if there is a textbox on the page?

Textboxes sometimes have lines around them but often the lines are invisible. The borders will show in Editor mode. If you want to remove the textbox, just place your cursor to the right of the textbox and press delete. Or double-click on the textbox and click the Remove This text Box. You might want to insert another textbox and customize it.



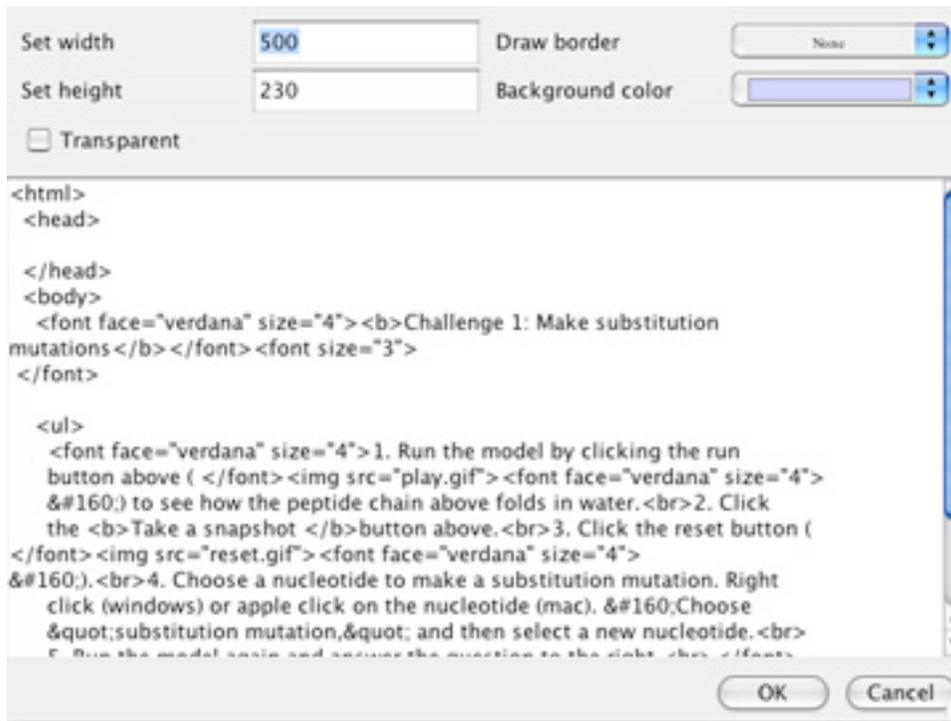
Customizing is tricky

Let's say you want to keep the textbox. You need to Right click (Windows) Apple-click (Mac) on the textbox and the choice of customizing will come up. Selecting that will allow you to enter your own text, as plain text or HTML (required if you want to format text WITHIN the textbox.)



What if there is a textbox with HTML code on the page?

You can erase the text in a textbox, including all the HTML code. You can make HTML in the textbox if you want, or you can simply change the text and leave the HTML code (when, for example, you like the font, images etc.) Just avoid changing a <tag>!



Can I add a different picture?

It is easy to delete pictures and insert your own.

Insert->Picture->From File

But positioning pictures is NOT easy.

The BEST way to do it right now is insert a text box, make sure your picture is in your folder, and write ``

You will always need the HTML header and footer:

```

<html>
<head>
</head>
<body>

</body>
</html>
  
```

Add a free response question

Suppose you want to ask students an additional question, after the one at the bottom of the page. Click to place the cursor where you want the question to appear, then go to (in the menu bar):

Insert->User Input Text Area

In the dialog box that pops up, you can type in your question (and format it using HTML, if you know how), and specify the size of the answer box.

Once the question is there, you can modify it by right-clicking (windows) or Apple-clicking (on mac) on it and selecting "customize this text area." You can modify other components in the same way.

More details: [User's Guide on Adding a Text Area](#)

Add a multiple choice question

Put the cursor where you'd like a multiple choice question, and go to:

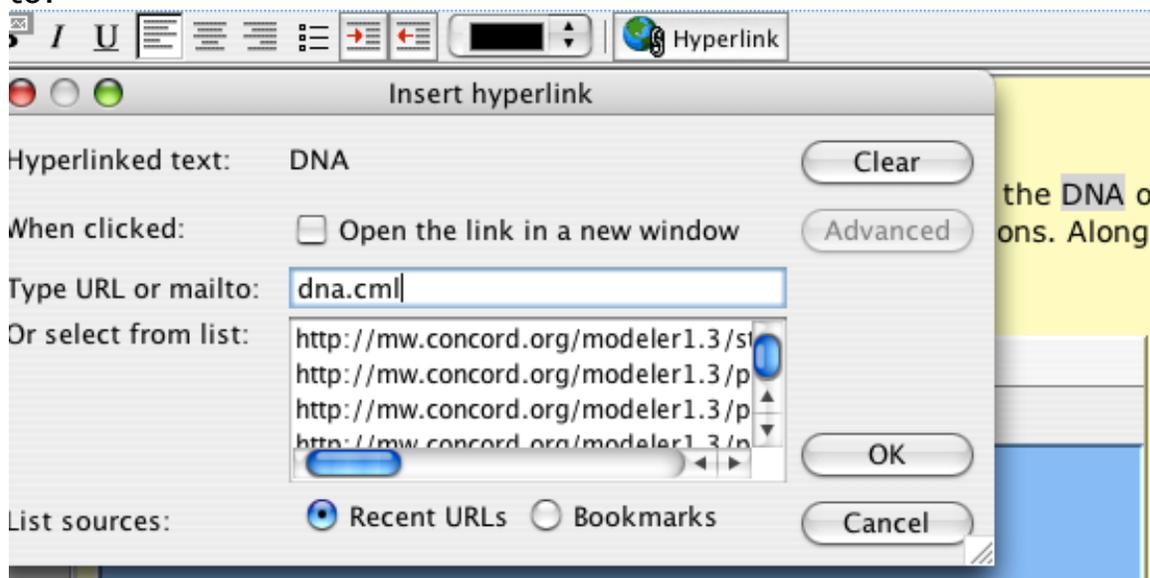
Insert->Multiple Choice

More details: [User's Guide on Adding a Multiple Choice](#)

Add Links

In MW you can hyperlink to another cml page (e.g. like [this](#)). You can make it open in a new window, or the current window (in which case you can come back by using the Back button on the toolbar). You can also link to a web page (which will launch a web browser, like [this](#)).

To create a link, simply (1) highlight some text, (2) select the Hyperlink tool in the toolbar, and set the filename or URL to link to.



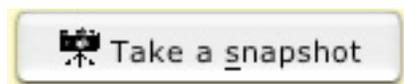
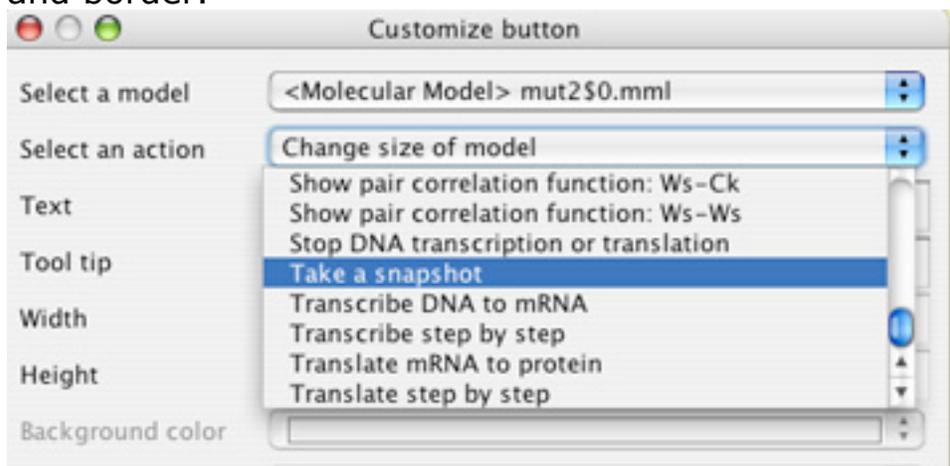
Note that [links](#) do not work while you are in editor mode.
More details: [User's Guide on Hyperlinks](#)

The Snapshot button

You can let students take a snapshot of a model (a picture of it at a particular time) by including a snapshot button. Go to:

Insert->Standard Controller for Model->Button

Next to select an action, choose "take a snapshot" (**way** at the bottom). You can customize the text on the button, and its color and border.



More details: [User's Guide on Snapshots](#)

Using reports

MW activity reports gather together all of the answers a student has typed in, as well as any snapshots they have taken. The report is a single .cml file that the student can edit, print, or submit to our database. To use a report in your activity, simply add a "create an activity report" button, by going to:

Insert->Activity Controller->Activity Button

Where it says "select an action," choose "create an activity report about this page in a new window." This will create a button that students can press at the end of the activity to generate their report. You can also create reports for multi-page activities, that gather the students responses across several .cml pages.

More details: [User's Guide on Creating a report](#)

Upload your page to a database

You can upload any .cml page you create to our database of user uploads. It's a convenient way to share your model or activity- any molecular workbench user can then access it! To upload, simply go to (while not in editor mode):

Collaboration->Upload current page

To view uploads, you just go to:

Collaboration->View Uploads

You can also get to them from
MW Home Page->User uploads

More Help

Check out the amazingly detailed, always up-to-date MW User's Guide by going to:

Help->Online User's Guide

Multi-page Activity Authoring Tips

Advanced users may want to create elaborate many-page activities like the ones we have created for our projects [Molecular Logic](#) and [Molecular Literacy](#). Here are a few tips on how to do this that aren't currently collected in one place in the user's guide:

- Store all files used for an activity in one folder. This allows you to automatically upload the whole thing by using *Collaboration->Upload Current Activity Folder*.
- Use relative path references, when creating links between .cml pages or using tags.
- Use a reasonable file naming scheme, such as appending sequential numbers to the name of the file for each activity page. This makes it much easier to link pages together and keep track of them.
- Use the multi-page report button, to gather together questions and snapshots across all pages of the activity.
- Use page titles (set them by going to *Edit->Title*)
- On each page, include a link to a table of contents page or some reference to location in the activity, such as "page 3 of 5."