K – 5 Instructional Technology Lessons

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Each grade level's list of skills builds on those mastered in previous grades.

Here are some general guidelines when managing all levels of students in a Computer Lab, or in a classroom using laptops from a mobile cart:

Provide expectations for academic goals and behavior before walking over to Lab. Ensure students' hands are clean. When arriving at Lab, students are to be lined up quietly. Have students enter in groups, 5 or so at a time, depending on how workstations are arranged (generally in rows). Remind students not to touch computers until instructed to do so. Once all students are seated, with their hands in their laps, reinforce expectations for behavior, and explain why these rules are important to follow. Explain that students are going to be using activities in reading, writing, math, and other subjects during the year. Remind students that you will need to have them stop working at times, either to learn something new, deal with a problem that came up, to share a discovery, or to stop because it is time to go. The most effective way to have students stop and give you their attention is the have students put their hands on their head (model this, and repeat). You might want to remind students that an earthquake (or drill), or fire (or drill) could occur while they are in the Lab using computers, and explain (or demonstrate) how to respond appropriately in that instance. Most schools have a standard method of stopping work when an announcement is made over the PA system, which you may want to remind students of as well.

Note: The lessons described here are modeled using the Apple Macintosh OSX 10.4.x or higher interface, though most lessons can be easily modified for use with PCs running Windows.

For students using laptops, it is especially important for them to learn to use the trackpad using only one hand (the student's dominant hand), using only the thumb and index finger. Learning to do this correctly from day one is akin, though not life threatening, to a teenager learning to drive using the right foot to control both the gas pedal and brake. As adults, we know it is not possible to drive well having one foot on the gas and the other on the brake.

Third Grade

Review all of the skills and projects listed in the K-2 sections above with students before beginning new lessons that follow…

Overview of Grade 3 skills and projects:

1. **Competently uses Microsoft Word™**
2. **Masters capitalizing, punctuation, indenting, centering**
3. **Makes attempt at spell checking writing**
4. **Understand the anatomy of a finder window, be able to use the features of the window to organize, locate items**
5. **Uses basic formatting tools and palettes**
6. **Uses quotation marks in dialog**
7. **Performs basic copy/paste within application, and between applications; i.e.: image or text from web to Word, KidPix to Word**
8. **Writes a Friendly Letter with proper formatting**
9. **Creates a 4-6 slide PowerPoint™ adding at least one image**
10. **Saves to a specified folder or location independently**
11. **Imports pictures**
12. **Uses standard keyboard shortcuts (⌘-S = Save, ⌘-P = Print, etc…)**
13. **Understands and follow rules of Internet Safety**
14. **Types 10-20 wpm with 85% + accuracy**

Grade 3 - Lesson 9, 10, 11

Creates a 4-6 slide PowerPoint™ adding at least one image; saves to a specified folder or location; imports pictures

The previous (2nd Grade) PowerPoint lesson only required the student to work from a preset template with text boxes ready to be typed into. This lesson will require the student to build the PowerPoint presentation from scratch. It is imperative that teachers prepare students by making their draft slides by hand in advance of this lesson, (see model). This lesson/project may take two, or even three visits.
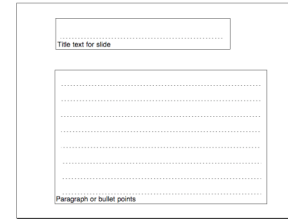
1. With their draft slides at the ready, have students open PowerPoint™ . Choose **New → PowerPoint Presentation → Open**.

2. Show students that there are preset boxes for them to type in, but that they are not going to use them. Model for students how to remove them, and then have students do it. The procedure is this: click on the edge of a box, notice the texture of the frame change, and then press the delete key. Repeat process for second box, and for any slides that contain them.

3. Creating a text box from scratch is easy to do. Choose **Insert → Text Box**. Without clicking the mouse, move the arrow over the blank slide to the location where you want the upper-left corner of the box to reside. Click and drag diagonally downward to the right. The text box will only maintain the length, but not the depth. When typing in the text box, continue typing and the text will be wrapped to the next line automatically. Multiple paragraphs can be typed in one text box, but a good rule of thumb in
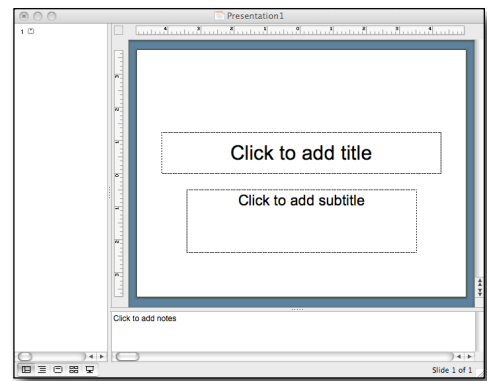
PowerPoint is not to use more than 5 sentences on any one slide. Additional text can always be put on the following slide.

4. Changing the appearance of text should be limited at this grade level, but it can be done. Click on the edge of a text box, and then use the Formatting Palette or Toolbar to change it. All the text in the box changes at once. Alternatively, you can select text with the insertion point as is done in a Word™ document, but that takes longer, and some text could be missed.

5. Repeat the process of creating text boxes and typing text into them on each slide.

6. Model for students that when a new slide is needed, the student can use the **Insert** menu → **New Slide**. If the New Slide dialog box appears, the student can click on the Blank Slide choice to avoid having to delete unwanted text boxes. (If the New Slide dialog box does not appear, it has been deselected in the Preferences. Follow this procedure: **PowerPoint** menu → **Preferences** → **View** → **New Slide Dialog** check box).

7. Once students have all begun work on their second slide and are working independently, ask the students to stop and save their work. Most students to this point have only saved work in Word, and only with assistance. Let students know that the saving process in every application is similar.

8. The save dialog box on a new Mac can have one of two appearances: simplified view or normal (see images on next page). The simplified view was designed (for a typical adult consumer) so that all saved work would end up in a Documents folder. We want students to begin to understand the organization of a computer's files, and how the user of the computer can customize the saving of documents to a specific location of his or her choice.
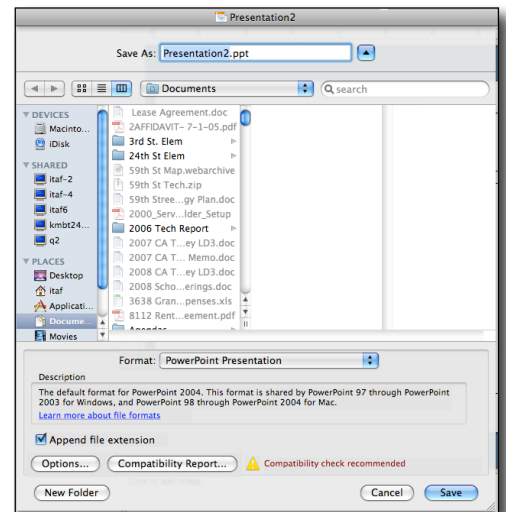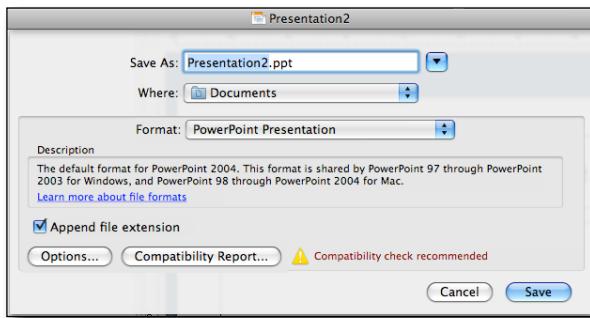
9. Direct students to click on the small downward facing arrow to expand the save dialog box, if necessary. Depending on the saving scheme that is set up at your school, your directions may vary. Here's an example (this may or may not be set up at your school):

    a. **"Click on the word Desktop in the blue navigation bar on the left (you may have to scroll to see it). Look for a folder named 'Student Saved Work'. Click on it, and then click the Open button. Now you see the names of teachers. Find the name of your teacher. Double-click on it. Look for your name, and then double-click on it.**

    b. **Look at the name of the document suggested by PowerPoint. Select the text in the name, except for the suffix (.ppt). Replace this text with the following "Steven-Animals.ppt"**

10. Resume work on the PowerPoint presentation. Stop students about 10 minutes later to show them how to change the background color of each slide. By this time, students should have 3 or 4 slides completed. The following instructions apply to PowerPoint in Office 2004. The instructions for Office 2008 differ slightly.

11. Show students how to change the slide background. Pull down the **Format** menu → **Slide Background…**


12. The ellipses indicate that the user will have an opportunity to
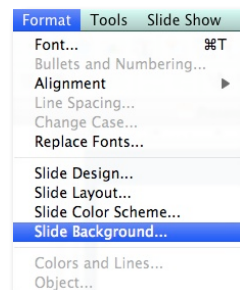
make choices here. The student can either choose one of the suggested colors, or choose **More colors…** This is a good opportunity to show students how the color palette in the Mac OS system integrates with an application like PowerPoint. Students can elect to apply the color to all slides (which is normally a good idea), but here you may want to instruct students to use a distinct color on each slide so they can see the change as the slides transition from one to another.
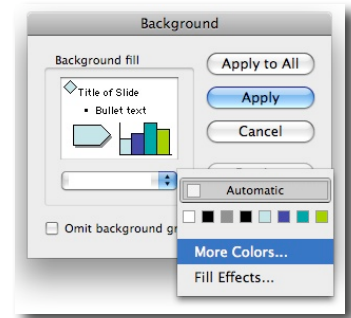
13. Give students a chance to make these background changes, and let them know that they can continue to apply them to additional slides they make in this presentation.
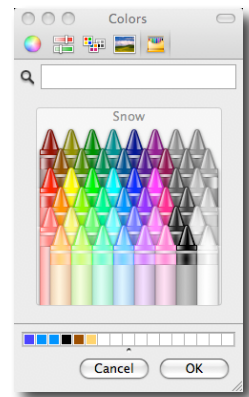
14. Ask students to stop working, and watch you demonstrate how to do slide transitions. Pull down the **Slide Show** menu to **Slide Transitions…** Once in the Slide Transition dialog box, show students how to choose a transition type, whether or no they want sound, and if they want to require the user to click to advance the slide, or have the show advance after a preset number of seconds.
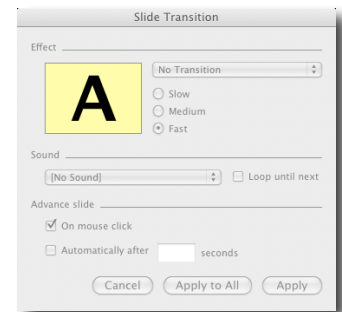
15. Remind students to save their work periodically, and at the end of their work session. Once the majority of students have completed their writing on each slide, provide a step-by-step demo of how to obtain an image from the Internet that can be used in the presentation. For the purposes of this demo, students can all get and use the same image, and then delete it if not wanted. Make sure all students have saved their work before beginning this process.

16. Direct all students to navigate to the second slide in their presentation. One way to do this is to go to the **Slide Sorter** in the lower left corner of the screen

(see image of the tiled rectangles), or in the **View** menu → **Slide Sorter**. When students see the **thumbnails** on the screen, they can double-click on the second slide.
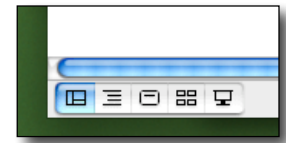
17. Once on the second slide, have students resize their PowerPoint window down somewhat in order to also be able to see the browser window as they open FireFox or Safari. **Open FireFox** or **Safari.** Type in **www.google.com/images.** In the search field, have students type in a word such as **"plowing"**. Have students spend a few moments browsing the images. Bring students' attention together, and then have them click on the image you designate. The image chosen will appear in the top panel of the web browser window.
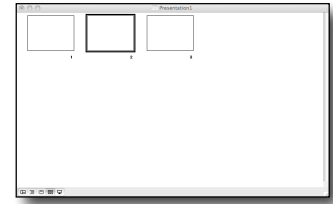
18. Click on the thumbnail of the image at the top of the window. The image will appear by itself in its own window. The next step is to move the image to the desktop of the computer. (This is necessary because some images won't simply copy/paste from their web pages to another application.) Dragging the image to the desktop will convert the image to a **.jpg** image that can then be dragged onto a PowerPoint slide (or a Word document, or other program).
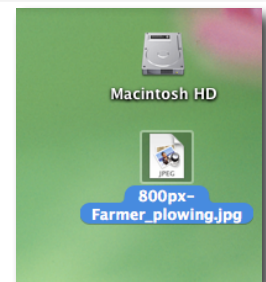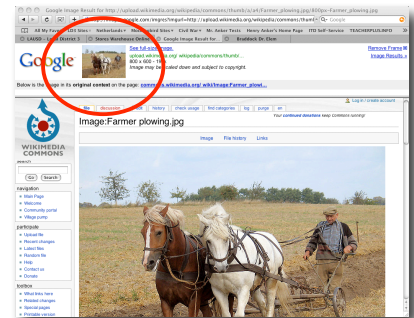
19. Make sure the PowerPoint window is in view. Drag the image file from the desktop onto the PowerPoint slide. (You should see a small **"+"** sign next to the arrow indicating that the image will be added to the PowerPoint document.)

20. Once the image is on the slide, you can resize it or move it.
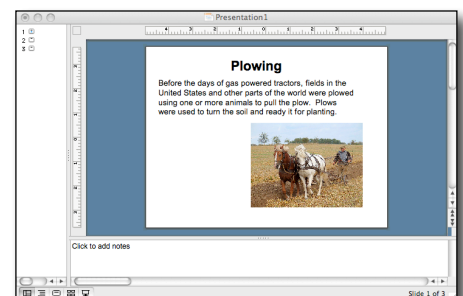
21. Save the presentation.

22. Students should be given the opportunity to share their presentations with the class as part of their assignment. Tips on giving effective presentations should be shared with students beforehand, along with the chance to practice in class and at home. Here are some tips for presenting:

   a. Presenters should have note cards in hand

   b. Presenters should not read text on slides verbatim to their audience, but rather share additional information

   c. Presenters should make frequent eye contact with their audience, speak in an audible voice, changing inflection, and take questions

   d. Presenters should rehearse many times before presenting