

A How-to Guide to Your Digital Classroom

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HOW TO #1 Replacing a Bulb in an Overhead Projector *3M Model 1810*

Step 1

Ensure that the power is off.



- a. To begin replacing a bulb in your 3M overhead projector, ensure that the power switch is off.
- b. Then, disconnect the projector from the outlet providing power. Allow the projector time to cool (if previously running).
- c. Now you can safely begin.

Step 2

Opening the projector



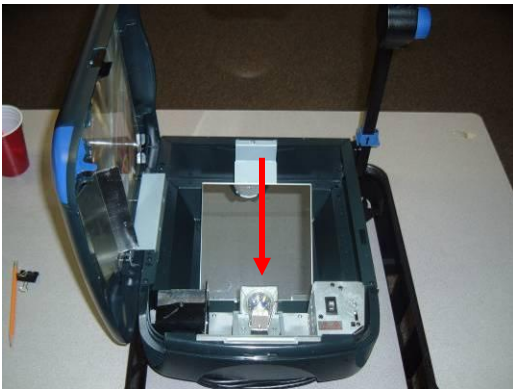
- a. Locate the latch. It is located on the side of the projector with the arm (note the location of the arrow).
- b. The surface of the projector will open like a book. The hinge is located on the side that is opposite of the arm.

Step 3 Releasing the latch



- a. Gently push the lever upward to release the latch.
- b. Simultaneously use your other hand to slowly open the cover.

Step 4 Locating the bulb



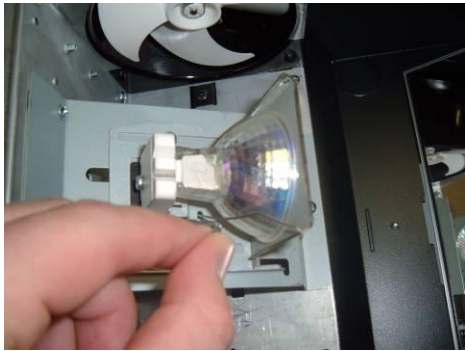
- a. **If the bulb is shattered or broken, do not remove pieces with your bare hands.**
- b. Before attempting to remove the bulb, examine the action of the release lever.

Step 5 Releasing and replacing the bulb



- a. Pulling the lever will safely eject the bulb in need of replacement.
- b. Before inserting the new lamp bulb, match the correct type to the previous bulb (ENX 82 volts, 360 watts)

Step 6
Inserting and testing the new bulb



- a. Carefully slide the new bulb into position.
- b. Set the lever to lock the bulb in place.
- c. When bulb appears to be securely in place, carefully close the projector. The latch will automatically lock the surface back into place.
- d. Plug the projector back into the outlet
- e. Press the blue button, and watch the projector turn on.

Please turn off the power, unplug the projector, and notify the media specialist if:

- it does not illuminate
or
- a strange sound/smell comes from the overhead projector

HOW TO #2 Replacing a Bulb in an LED Projector *BENQ MP622*

Step 1 Power down and disconnect



a. Press the power button twice to turn off the LED projector. Refer to the menu that is projected on the screen to verify this. The light on the button will turn orange when shutting down.

b. Do not be alarmed if the projector is making noise. The fan will run for over a minute after shutting down to keep the device cool.

c. After allowing time to fully cool, the main power cord can be unplugged from the wall.

d. Begin disconnecting all cords and cables from the back of the projector.

e. Carefully turn the screws counterclockwise to first loosen the VGA cable leading to the computer before removal. Simply unplug all other cables.



Step 2 Accessing the bulb



a. Now that your projector is disconnected and cooled, it is ready to open.

b. Find a coin (any should do) to use as a screwdriver to loosen the round access panel on top of the projector. If your projector is mounted to the ceiling this panel will be accessible as it faces the floor.

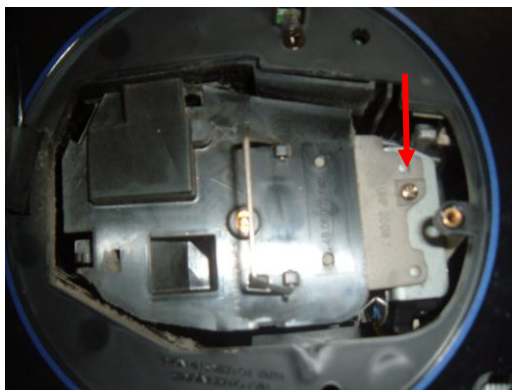


- c. Turn the coin counterclockwise to loosen the round cover. The hinged cover will easily open when loose.
- d. Do not touch any interior components other than those specified. **Failure to follow directions carefully from this point can be very costly.**
- e. Notify the media or technology specialist if confused or in need of help.

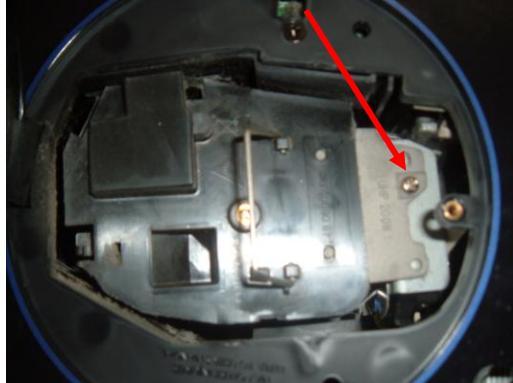
Step 3 Removing the bulb



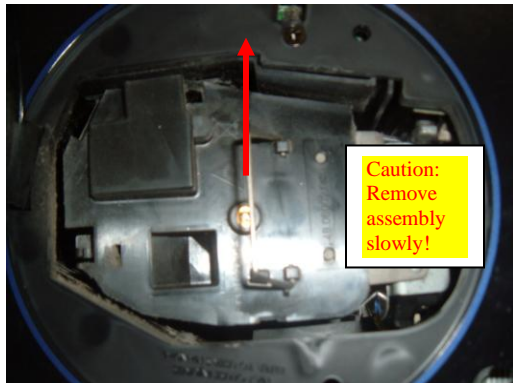
- a. Open the cover fully.
- b. Notice the hinged metal wire handle.
- c. This is the handle that will release the bulb assembly.



- d. Notice the screw indicated by the arrow. A screwdriver will be necessary to remove this screw.

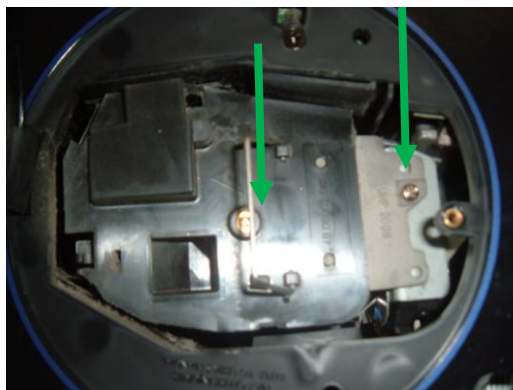


- e. Use the screwdriver to loosen and remove the screw indicated by the arrow by turning the screw counterclockwise.
- f. Put the screw in a safe area as it will be used to secure the bulb assembly after replacement.



- g. Grasp the wire handle. Very gently and slowly pull the lamp assembly from the projector.
- h. **Do not touch any part of the assembly or the inside of the projector. This can lead to costly damage. Bulb assemblies cost over \$300 dollars, and a new projector costs more!**
- i. Place the bulb assembly in a dry, safe location while awaiting disposal.

Step 4 Insertion and reassembly



- a. Lower the new bulb assembly gently and slowly into the empty projector receptacle by the wire handle only.
- b. If extra controlled guidance is necessary, gently push the black plastic surface to aid in connection. Do not force the assembly in place.
- c. Replace and tighten the screw that was previously removed to secure the assembly. **Do not tighten the screw too much.**



- d. Close the lid.
- e. Re-tighten the round access panel on top of the projector with a coin.



- f. Connect all cables removed prior to bulb replacement to the back of the projector (see step 1 for correct placement).
- g. Plug the projector into the outlet.



- h. Press the power button indicated in step one.
- i. Let the projector power-up.
- j. Press the menu button and enter "System Setup". From the system setup menu, select "Lamp Settings". Next, choose "Reset Lamp Timer".

Congratulations, you have successfully replaced your bulb!

HOW TO #3

Connecting the Compu-cart to the LED Projector

Mitsubishi DLP X0500U Projector & Toshiba Digital Cinema Progressive VCR/DVD Combo

Step 1

Connect the cart to a power source.



- Unroll the extension cord caddy and plug it into the nearest outlet.
- Plug the cart into the surge protector/caddy and turn on the surge protector. This cord is at the bottom of the cart and comes out of a small hole. A red light will show when it is in the on position.
- The cart and everything in it will now have power.

Step 2

Connect a computer to the cart.



- Your laptop should already be on and past the login screen.
- Carefully attach the VGA cable that is in the cart to the VGA OUT port on the side of your laptop. This cable is labeled as COVID. Tighten the screws.



- Plug the piggyback audio cord that is attached to the COVID cable into the laptop's headphone jack. Do this even if you are not using audio to eliminate a buzzing sound.
- Just in case something has been unplugged: You can check to ensure the three coax cables from the DVD/VCR are plugged into the combo unit and the projector. You can also check to make sure the power cord from the combo unit is plugged into the compu-cart, but this should be done when already.



Step 3

Turn on the projector.



- a. First, lower the cover on the back of the cart that covers the projector.
- b. Remove the lens cover from the projector.
- c. Use the projector remote (the light colored one) in the computer cart to turn the projector ON. Hint – point at the projector not the screen. 😊



- d. Wait about 30 seconds for the projector to warm up and project onto the screen.
- e. Focus the projector if necessary by turning the rings around the lens.
- f. The projector can be moved up and down by screwing the feet stands in closer or farther away to the projector.
- g. Press “Enter” on the remote to leave the setup mode. The projector should now display what is on your laptop.



Step 4

Turn off the projector.

- a. Press STANDBY on the remote **twice**. The projector will need one to two minutes to cool down before it is off. When you hear it ding twice, it is off.
- b. Remove the VGA (COVID) cable from your laptop and place it back in the cart.
- c. You are now safe to unplug the cart. Wind up the extension cord and place the caddy/surge protector back inside the cart.
- d. Close the cart door on the back of the cart.

Troubleshooting

No sound?

- a. Make sure the small audio cable is in your headphone jack.
- b. Turn the speakers up on the cart itself (this is located on the bottom of the right speaker).
- c. Make sure the sound/audio is turned up on your laptop and nothing is muted.

No signal?

- a. Make sure you have plugged in the VGA cable to your laptop.
- b. Make sure your laptop is completely booted up and past the login screen.

Not projecting your laptop?

- a. You can toggle between display modes. Press the FN button (function – blue on laptops) and the F4 key simultaneously to toggle through three display modes. After each toggle, wait a few seconds for the computer to catch up.
 - The first display mode shows the laptop only.
 - The second display mode shows both the laptop and the screen.
 - The third display mode shows the screen only and not the laptop.
- b. Make sure the cover is off of the projector lens.
- c. Make sure your computer is not in sleep mode.
- d. If the projector self shut off from nonuse, turn it back on by following Step 3.

HOW TO #4 Using Your LED Projector in Your Classroom *Mitsubishi DLP X0500U*



Prepare

1. The projector is operated by using the wall controller. The top left button turns the projector on. Wait a minute for the projector to warm up and display.
2. Press the computer icon if you want to display what is on the laptop.
3. Press the “Video” button to display the DVD/VCR.

To Use Your Laptop

1. Connect your laptop to the VGA cord and audio. The VGA cords have been labeled with a red dot to show you which way is up. Screw in both sides of the VGA cord. Plug the piggyback audio cord into the headphone jack. (In the photo, the mouse is the middle cord attached.)



2. You can toggle between display modes. Press the FN button (function – light blue on laptops on the bottom row) and the F4 key simultaneously to toggle through three display modes. After each toggle, wait a few seconds for the computer to catch up.
 - The first display mode shows the laptop only.
 - The second display mode shows both the laptop and the screen.
 - The third display mode shows the screen only and not the laptop.

To Use Your DVD/VCR/TV Tuner

1. Press the round Power button on the left.
2. Use the remote control to choose between DVD or VCR if necessary. (If you have put a video in, the tuner will automatically display in that mode.)
3. You must have the remote control to use the tuner. If yours is not working, put in a work order and check out a temporary one to use from the media center.





The Most Important Step

Press the top right button to turn the projector off. The projector will display a question: “Turn off?” You must wait for this image, and then press the off button a second time. **If you do not press this two times, the projector is NOT off.** Projector bulbs are expensive to replace; Please do not leave your projector running when not in use!

HOW TO #5

Using a Student Response System – Clickers!

Turning Point 2008 Software from TurningPoint Technologies



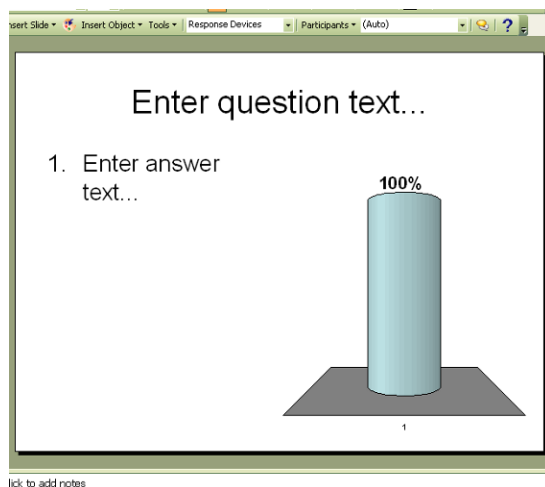
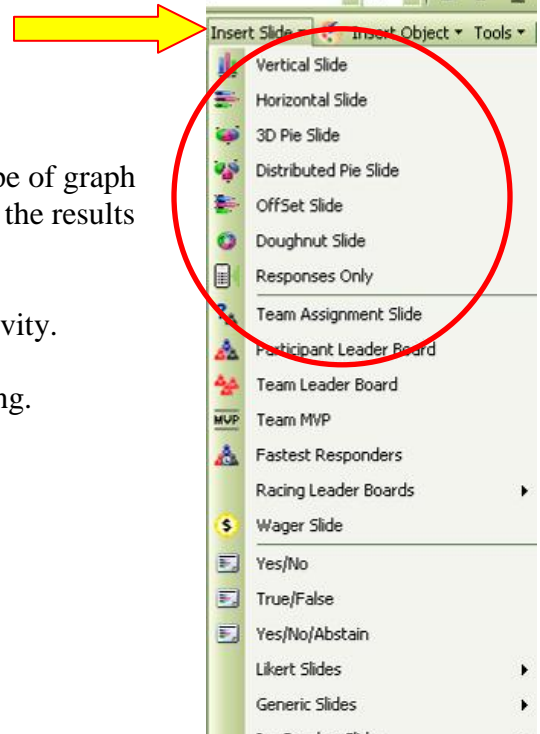
Getting Ready

1. Download software for Turning Point. Go to:
<http://www.turningtechnologies.com/responsesystems/support/downloads/softwaredownloadsregistration.cfm?type=26&y=2008>
2. Fill in your information.
3. The software will open as a PowerPoint with an extra toolbar embedded for quizzing.
4. You will create a PowerPoint as usual while adding features using the Turning Point toolbar.

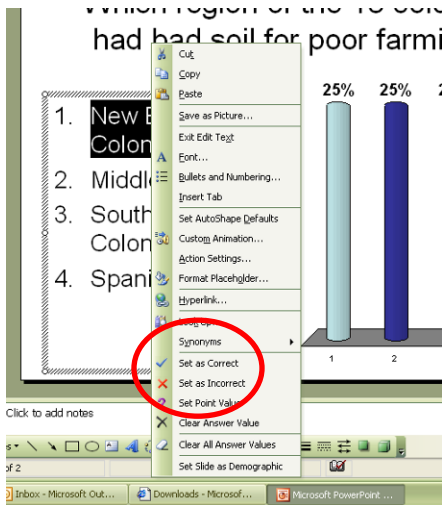
Steps to Designing Your Presentation

Insert Slide

1. Click “Insert Slide” on the Turning Point Toolbar.
2. Choose a graphing option from the top section.
 - The first sections are generic slides and the type of graph listed is the type of graph that will show when the results are revealed.
 - The second section can be used for a team activity.
 - The third section is for different types of polling.
3. Insert your question and answer choices.

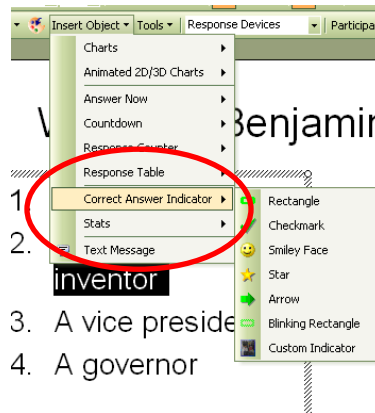


4. After creating slide: highlight the correct answer, right click, and select “Set as correct.”



5. Choose correct answer indicator. Go to “Insert Object – Correct Answer Indicator” then choose the indicator you like.

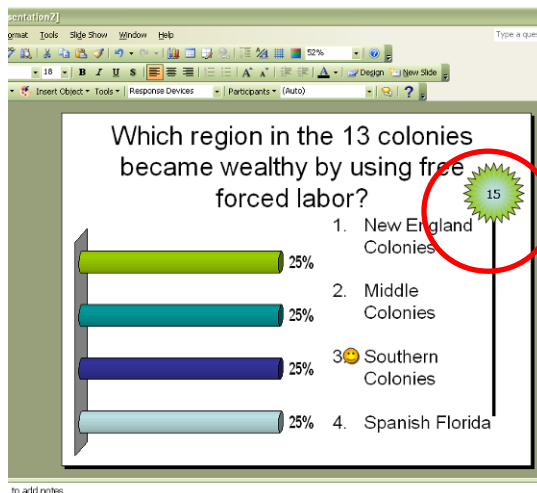
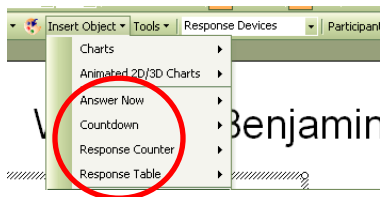
(Note: These will not show on the design pages. They will show up when you view the PowerPoint in slide show mode.)



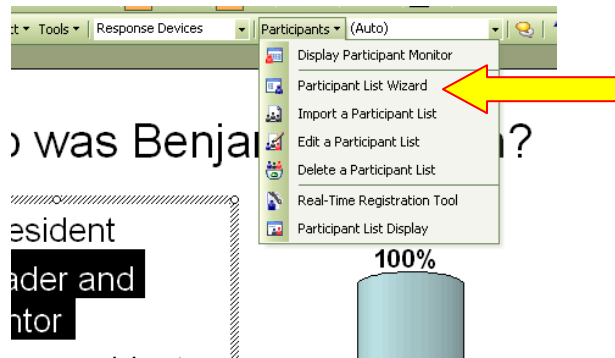
Add a Countdown Timer

1. Go to “Insert Object - Countdown” and choose your animation counter.

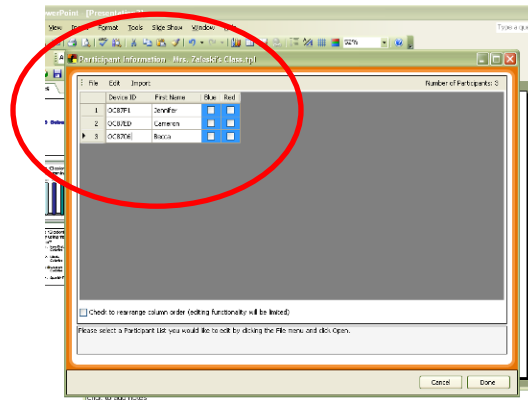
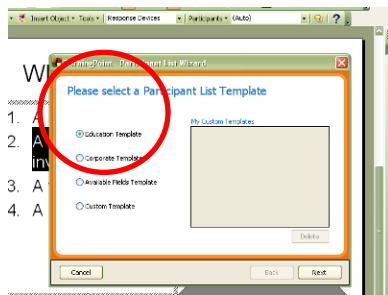
2. Change the time by left clicking on the number shown in the timer and type in a new value. Numbers shown are seconds.



Participant List



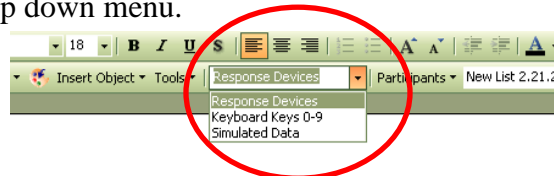
1. Go to “Participants – Participant List Wizard”.
2. Choose “Education Template – Next – Remove ID” if not needed.
3. Add fields according to your preference or move to #5 and import a list.
4. Name the group and click “Finish”.



5. Type participants and device ID number into Excel spreadsheet. Match each student to an ID number. You will find the device ID number on the back of each clicker. Each clicker has its own ID so you can correlate answers with individual students.
6. Import your excel sheet to the Participant List Template by clicking “File – Import”.

Time to Play!

1. Plug in the RF (Infrared) receiver to your laptop **BEFORE** opening Turning Point.
2. When handing out clickers, match the ID number with the student if you want to be able to look at individual responses.
3. Open your presentation. Be sure to open it in Turning Point, not just PowerPoint. You can check this by looking for your Turning Point toolbar.
4. Choose “Response Devices” from the drop down menu.
5. Click “Reset” and choose “Session” to begin a new session.
6. Click “View” in the PowerPoint toolbar and choose “Slideshow.” You are ready to go!
7. Show your slide with the question. Students can respond until the timer stops or until you advance the slide.
8. You can press F7 to view the response grid. This will show you who has responded. When the timer ends, the results will display in the graph you chose.
9. Advance to the next slide and continue your presentation.

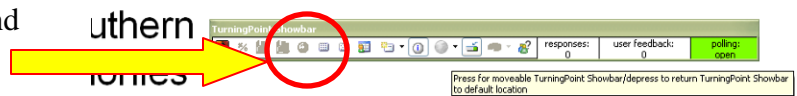


Running Reports

- a. The disk icon will save the session data. Always name the session and date it. Highlight “newsession” to rename. It is helpful to name your session by the date and class for easy access later.
- b. Always hit “Reset” to be ready for a new class.
- c. Go to “Tools – Reports – Choose Session – Choose Category (by participant or question) – Generate Report” to see participants’ responses.

Extra Info and Hints

- If the toolbar covers the question, right click and move it.
- Repoll (allow clickers to respond again) by choosing the 5th icon.
- F9 will hide or show the toolbar.



- F2 will toggle between percentages and counting numbers.
- F6 will show the original chart.
- Don't have time to make a PowerPoint from scratch?
You can go the Turning Point website and choose a state, standard, and grade level. A list of questions will be shown. Choose the questions you want by clicking and dragging the questions over. Click on "Build Slide" and the presentation will be made for you!

Troubleshooting Turning Point

Clickers not working?

- a. Was the RF receiver plugged into the laptop before opening the software?
- b. Is the software and clickers set up to receive the identified channel?

Slides not interactive?

- a. Make sure you are in Turning Point and not simply PowerPoint.
- b. Make sure you are using the Turning Point toolbar.



Checking to make sure student response clickers are working?

- a. Click "Tools – Settings – Polling Test" in the Turning Point toolbar.
- b. Click on "Start Test" on the lower right corner and press any button on the student response clicker.
- c. If both the software and clickers are set to the same channel, the device ID's should begin to appear. When

finished, simply click "End Test".

Can't get your reports?

Did you choose a participant list? If not, the default may have labeled it as anonymous.

HOW TO #6 Setting-up and Using an Interactive White Board *SmartBoard*

Step 1

Connecting to the *SmartBoard*



- a. Before turning on power to the interactive white board, all necessary cables must be in place.
- b. Begin by connecting the cable leading from the board to your computer's USB port.



- c. Next insert and tighten the VGA cable leading to the projector (as shown).
- d. There will be a thin audio cable extending from the VGA connector that has a small green tip. Plug this into the audio port on your laptop (noted by the red arrow).



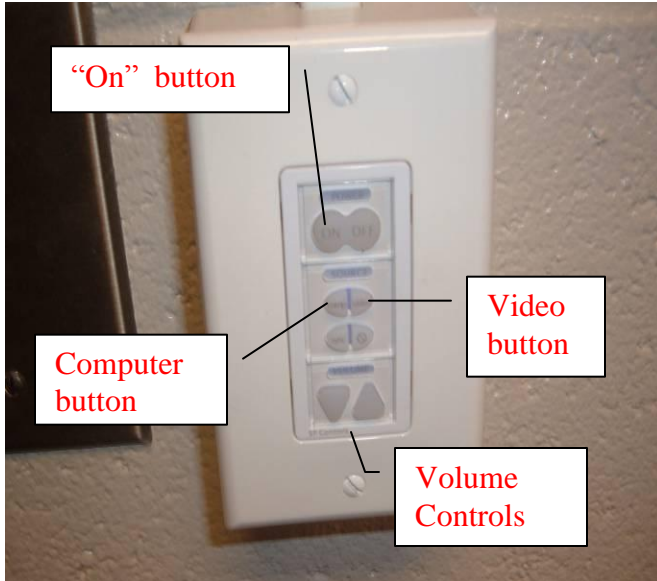
- e. Also, insert the USB cable leading from the projector's remote receiver (as shown).

receiver

projector remote

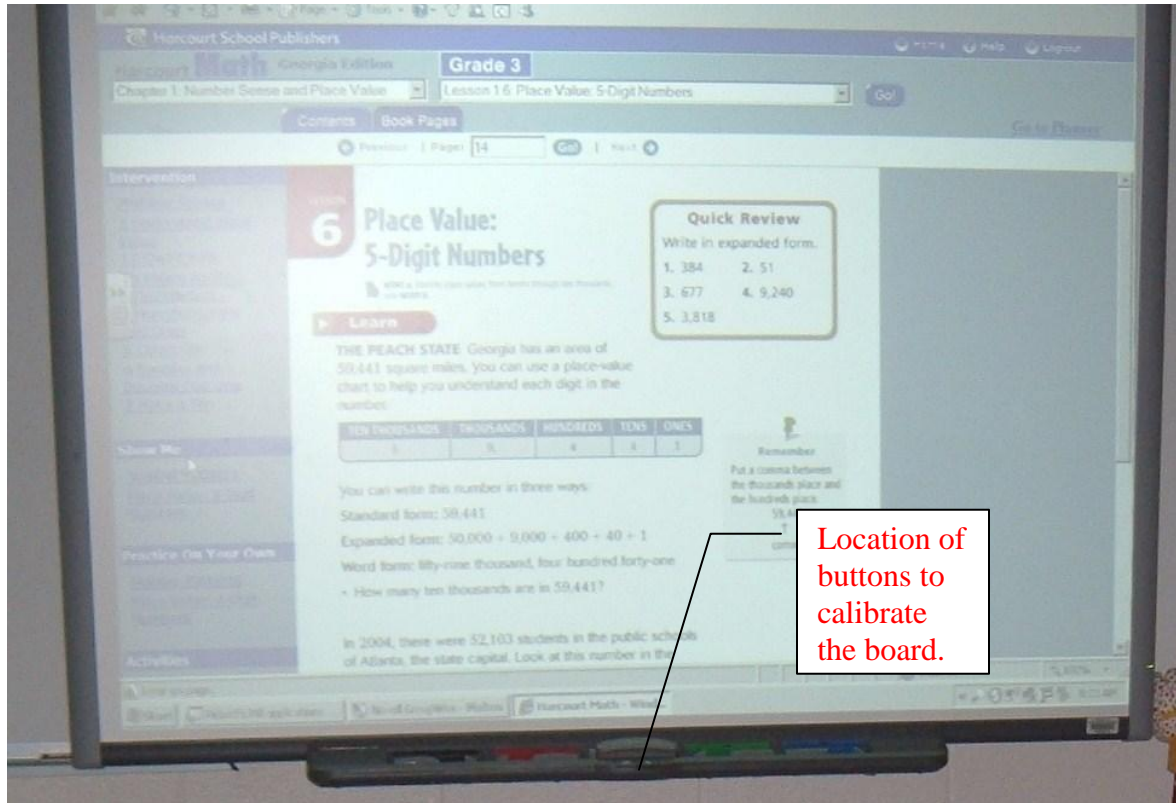


Step 2 Turning Equipment On



- a. After your computer is on, locate the control box located on the front wall of the classroom. This box is capable of turning on your interactive whiteboard and projector, toggling between computer and video feeds, and adjusting volume.
- b. Press the “On” button. Wait a moment for the projector to warm-up. Then, press the button labeled “Comp” to display the image from your computer onto the white board or press the “Video” button to project the school’s cable or closed circuit television to the board.
- c. For television use, ensure the coax cable and video/audio cables are plugged into the back of the VCR to receive a signal.
- d. Turn on the VCR, and select the appropriate channel that your school broadcasts over.

Step 3 Using the interactive white board



- After a display appears (differs from photo), the interactive white board must be calibrated.
- To calibrate the whiteboard, press and hold two buttons simultaneously for 2-3 seconds. These buttons are located in the center of the electronic marker/eraser tray. The board must be calibrated before each use and occasionally during use if the markers are not correctly aligning.
- Pick up any colored marker and begin writing on the board.
- A simple tap or double tap with your finger (equivalent to a click or double click with the mouse) will allow you to enter and close out of programs and online resources. No mouse is necessary; just think of your finger as your new mouse. Make sure all markers are in the tray, to utilize your fingers as a mouse. If a marker is missing, the Smart Board will think your finger is the marker and continue to write.

- e. If you make a mistake, pick up the eraser and use the tool in the same manner as a traditional white board. The Smart Board has sensors that will automatically recognize which tool is selected.

- f. As you utilize your Smart Board on a regular basis and become more confident, the benefits of advanced features will become evident through continued exploration and practice.