Ph.I.L.S. User's Guide

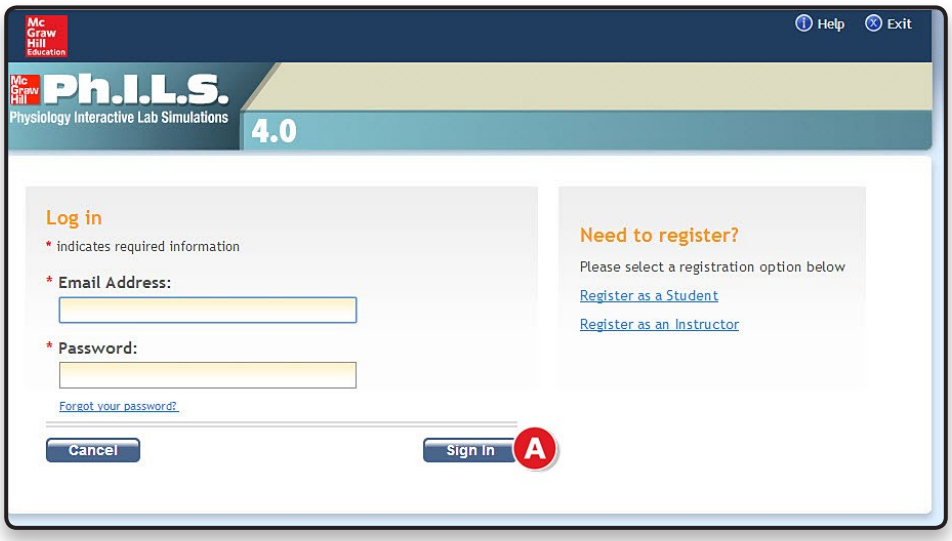
Training Guide

What is Ph.I.L.S.?

Ph.I.L.S. (Physiology Interactive Lab Simulations) is a series of 42 interactive physiology lab simulation experiments. Created by Dr. Phil Stephens of Villanova University, each experiment allows users to adjust variables, view outcomes, make predictions, draw conclusions, and print lab reports.

This easy-to-use software offers the flexibility to change the parameters of the lab experiment. There is no limit to the amount of times an experiment can be repeated and each time the data and results are slightly different.

Log In and Home Screen:



Go to http://www.mhhe.com/phils4login. Enter your login information and click **Sign In** A.

Once you have logged in to Ph.I.L.S., you will see the home screen with all the labs listed.

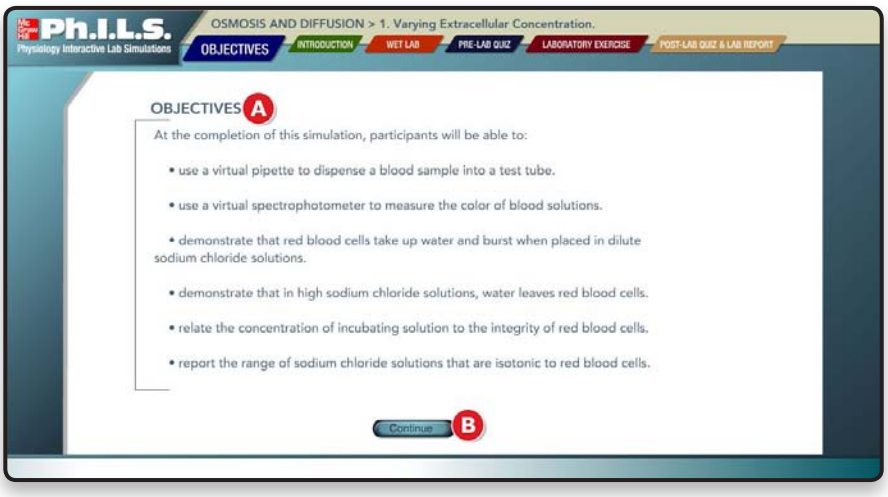
User Tip: Be sure to list all the labs in your syllabus for students to complete.

To preview an experiment as a student, simply click on the title to enter.

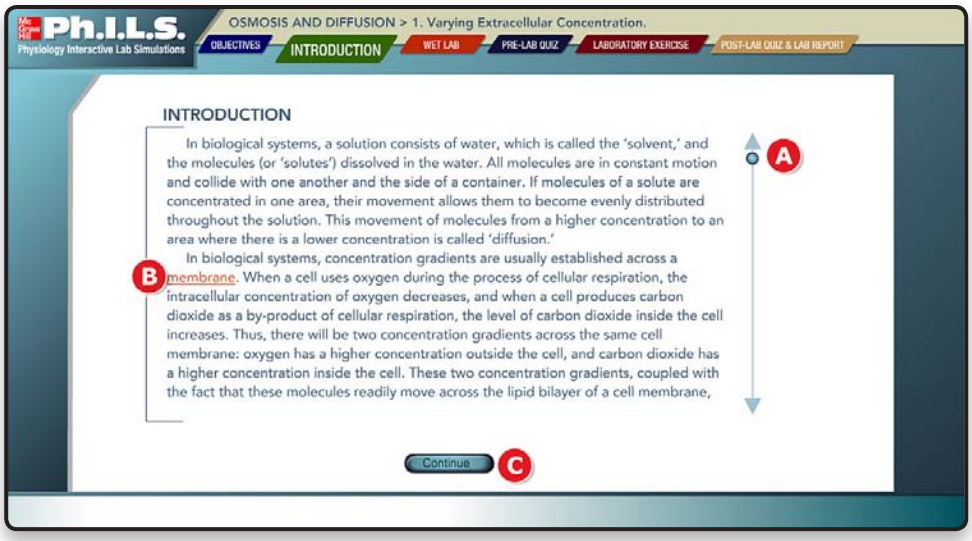
Each experiment is divided into five sections:

- Objectives & Introduction
- Pre-Lab Quiz
- Wet Lab
- Laboratory Exercise
- Post-Lab Quiz & Lab Report.

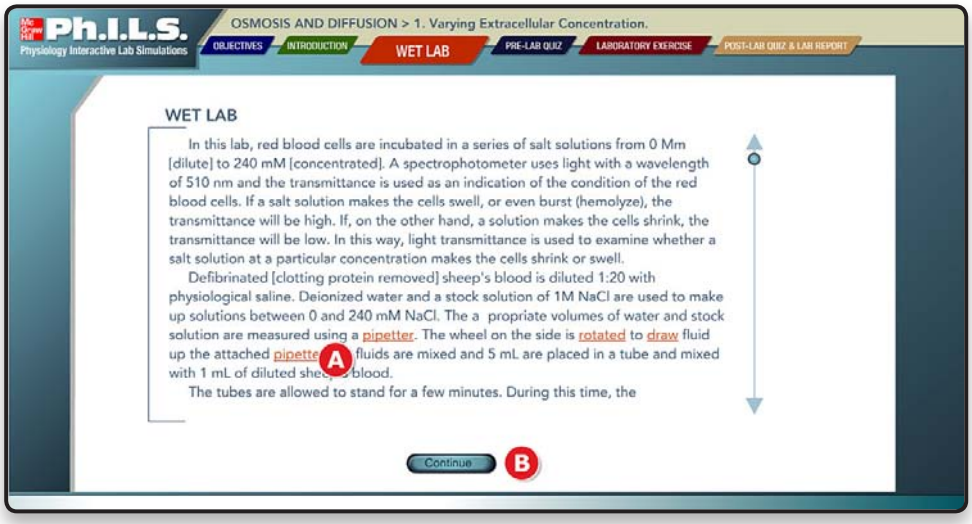
As students proceed through the experiment, they will move from left to right through each section.



The list of Objectives **A** will help set the stage for the experiment so that students understand the goals and what will be expected of them as they proceed. When students finish reading the Objectives, they should click **Continue** **B**.

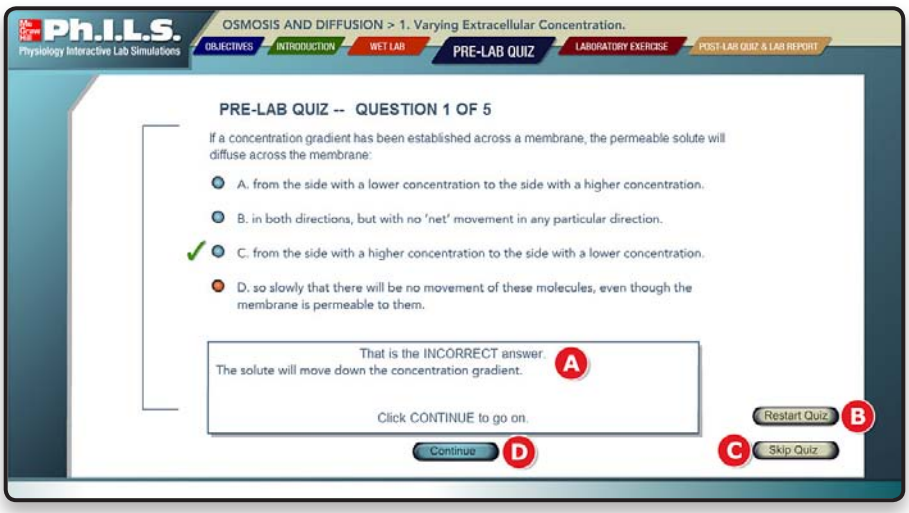


Students are now at the Introduction; this will help them understand the purpose for the experiment and how it ties back to concepts they are learning from the lecture. Use the scroll bar **A** to read the entire Introduction. As students read, they will notice words or phrases **B** underlined in orange. These are hyperlinks to illustrations that will help them understand the basics behind the experiment. Students can click an orange word or phrase to view an illustration. Click **Continue** **C**.



The purpose of the **Wet Lab** tab is to show students what the experiment would look like if they were completing the lab in a real lab setting (rather than a virtual lab). As students read, they will notice words or phrases **A** underlined in orange. These are hyperlinks to short videos that will show the steps in the experiment. After reading the Wet Lab section and viewing all videos, clicking **Continue** **B** will take them to the next section.

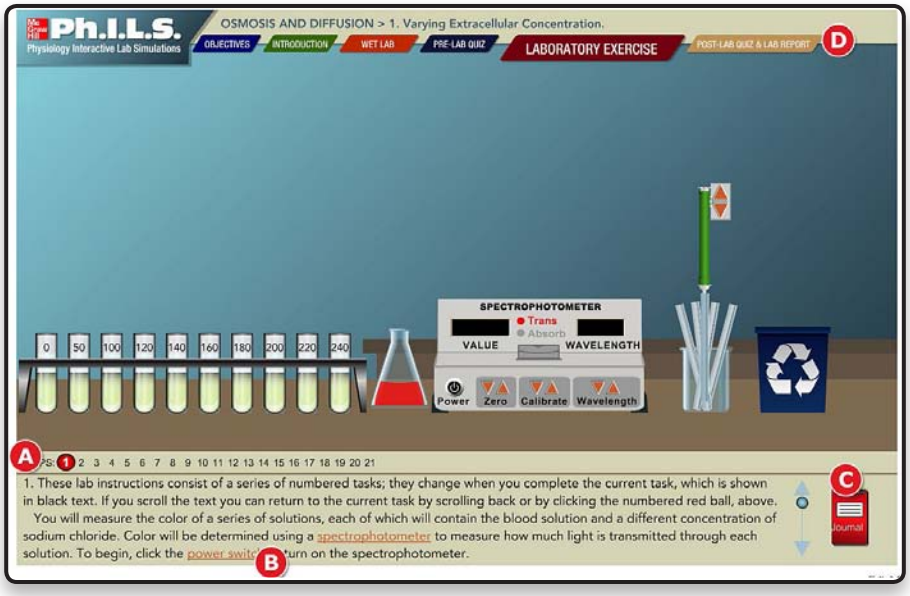
User Tip: It is important that students open and view ***all*** the videos or it will appear on their final lab report as not completed. The lab report shows you whether students viewed the Wet Lab videos.



Students will need to answer all five questions in the Pre-Lab Quiz to prepare for the experiment. As students answer the questions, the feedback at the bottom will tell them whether the questions were answered correctly or incorrectly. They can restart the quiz anytime by clicking the **Restart Quiz**. Students can skip the Quiz if they are repeating the experiment and have already answered the questions. **Continue** will advance through the quiz questions and take them to the next section.

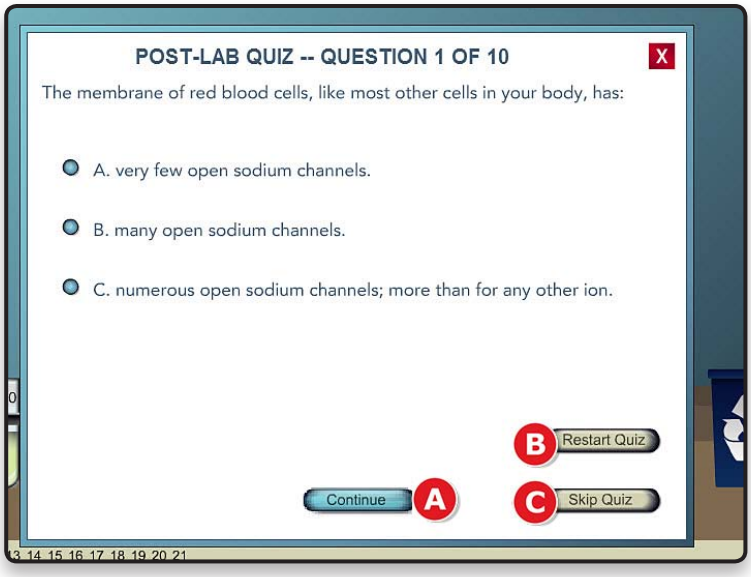
User Tip: Students need to answer all the questions in the Pre-Lab Quiz. Their score will appear on the lab report.

User Tip: If using Connect, the Pre-Lab Quiz can be assigned through the parent level.



Students need to follow the steps by reading the instructions A. Wherever students see words or phrase underlined in orange, they can click it to get more information about how to complete that step B. As students perform the steps of the experiment, they will be collecting data and will need to record the data in the journal C. When they have completed all the steps and collected enough data, the program will prompt them to click the Post Lab Quiz & Lab Report tab D.

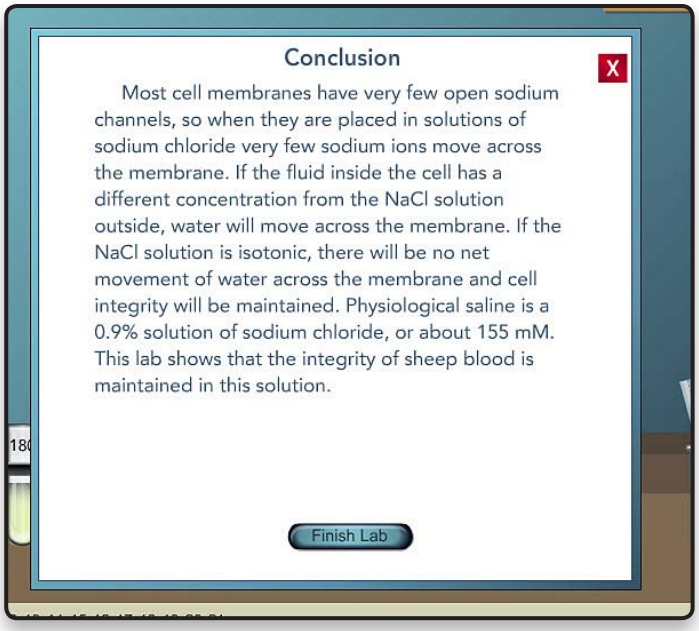
User Tip: From time to time, the program will complete repetitive steps for the students to save them time. For example, in the Osmosis experiment, you will fill the first three pipettes, but the computer completes the rest once you have gotten the hang of it.



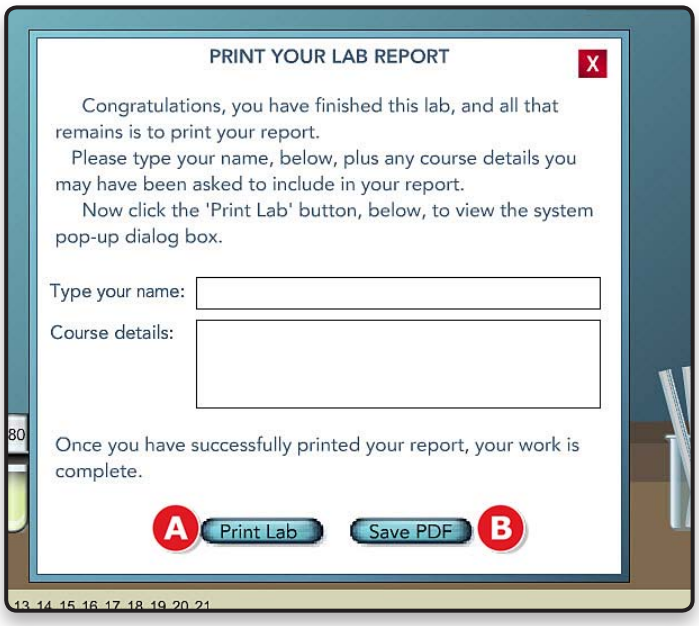
Students will be asked 10 multiple choice questions in the Post-Lab Quiz to make sure that they understood what they were supposed to be learning in the experiment. They can restart the quiz (A) at any time or Skip it (B). Click **Continue** (C) to answer all the 10 questions.

User Tip: Students need to answer all the questions in the quiz as their score will be included in the lab report.

User Tip: If using Connect, the Post-Lab Quiz can be assigned through the parent level.



After the quiz has been completed, students will see the Conclusion. This will help ensure that the students understand the overall intention of the experiment and how it relates to the key concepts in the course.



The last step is to fill out the Lab Report form and print the lab report. Students will type their name in the space provided and then add any course details. Click **Print Lab** A or **Save as PDF** B to e-mail the results.

User Tip: Students should check to be sure the report has been printed or saved properly before exiting the lab.

Who do I or students contact with questions?

Tech Support Contact Information

- **Phone Support: 800-331-5094**
  - Monday – Thurs 8 am – 11 pm CST
  - Friday 8 am – 6 pm CST
  - Saturday 10 am – 4 pm CST
  - Sunday 12 pm – 6 pm CST
- **Chat Support:** http://mpss.mhhe.com/
- **E-mail Support:** http://mpss.mhhe.com/contact.php