

Pearson Interactive Labs for Biology is an easy-to-use suite of online biology labs featuring simulations in authentic and guided learning journeys inspired by real-world applications. These labs are designed for non-majors biology that can be used as pre-lab work for biology majors where applicable.

Each lab begins with a real-world example that helps engage students with scenarios they can relate to, providing a connection between the lab and their own experience. Students use their mouse to scroll down and read through the story. In this example, students will learn how enzymes act as biological catalysts and the conditions that affect the ability of enzymes to catalyze reactions, including the breakdown of proteins in blood at a crime scene.

Now let's go to the dashboard view. Once the students enter the lab dashboard view, they will see all the sections that they will need to complete with the estimated time for each section. They will be taken to this dashboard after each section and cannot move on to the next part of the lab without completing the previous section. Please note that in the upper right-hand corner you can revisit the story at any time.

The introduction section is where students will revisit the lesson and background material needed to be successful in the lab. Students are assessed throughout the lab and receive guided feedback along the way. Students are asked to recall the information they read in the story and apply their understanding of the scenario to the concepts of the lesson. Students will be given more questions to assess their understanding of the concepts and critical thinking skills. Students will continue to work through the introduction until they complete every section. In this example, I'm going to select this home option in the upper left corner to return to the dashboard view.

In the pre-lab, students are asked to build a hypothesis, design an experiment to test their hypothesis, then make a prediction as to what will happen in the experiment. Next, students will be asked to set up the experiment and determine which sample they will use to test. Each lab emphasizes the process of science where students choose their hypothesis. Note that they don't get feedback on this section, we want this to be similar to what they would experience in a wet lab.

In the lab experiment section, students will now enter a simulated lab bench. You can see how realistic the lab bench looks. As I click on each item on the bench, we can see what the item is. Students will follow the protocol listed on the left-hand side of the screen to walk through the experiment. Now we will record our observation in the data table on the left-hand side. Students will work through these steps for the remaining samples and record their observations just as I showed.

In the post lab, students will now analyze the data they collected at the lab bench and interpret the results and reflect on their hypothesis. Students revisit their predictions and see if they had any surprises. Next, students will complete a knowledge check to

check their understanding. Next, they choose whether their hypothesis was supported or not. Students set up their graphs so they can prepare their data and see how it's presented. Finally, we are asked who tried to cover up the crime by removing the blood droplets, select all that apply. And that concludes this walkthrough of the Enzymes lab.