

Eye Safety Lab Activity

Name, Date, Period

Purpose: To observe the effects of hydrochloric acid (HCl) on the human eye if the correct PPE is not worn.

GOAL: To explain the importance of wearing the correct PPE: safety goggles in the lab area.

Safety: Hair pulled back, Safety glasses on

Materials: One egg, 6 molar HCl, Petri dish, Paper plate, Dropper pipette, Beaker

Prediction: Make a prediction. What do you think will happen when the acid is added to the egg?

Procedure:

1. Place your petri dish in the center of your plate.
2. Obtain an egg and a dropper pipet that contains 6 M HCl from the instructor.
3. Record observations of cracked eggs before.
4. Crack the egg into the petri dish. Place the egg shell on the plate.
5. Use the dropper pipet to add drops of 6 M HCl to different parts of the egg.
6. Study and observe any changes in the egg paying close attention to any differences between the yolk and egg white.
7. Record observations after adding the HCl to the egg.
8. Dispose materials into the trash can. We will reuse the dropper pipette. Place them into the provided beaker.

Observations: Construct a model of the egg before and after the experiment; Record 5 observations before and 5 observations after the experiment.

Conclusion: Explain your observations. What happened during the experiment?

Post Lab Questions:

1. What was the purpose of the lab activity?
2. Were the results as expected? Explain. Did you predict that the acid would react to the egg in this way?
3. Compare and contrast the before and after observations and models.
4. Reflection: Conclude why you think this happened and the importance of wearing safety goggles.
5. Real-World Application: How do safety goggles compare to face masks? Do they serve the same purpose for protecting us from harmful bacteria in the air? Explain.