

Writing the Right Questions

Objective: After completing this activity, students will be able to write at least e examples each of Engaging and Productive questions for science lesson plans.

Standard: This assignment is aligned with HLP #3: Eliciting and interpreting individual students' thinking.

After reading Chapter 3 from Harlen's (2001) *Primary Science: Taking the Plunge*, you will do a lab on cellular respiration. This assignment will use that lab as a way to model writing productive questions as part of your lesson plans, and questions that can help you find out what students think before you start an activity.

The questions you ask at the start of activity are helpful because they can help you "engage" your students, start them thinking about the concept you will teach, or pose a challenge they should be able to solve by the end of the class. Because of this, I will call these "Engaging" questions.

Productive questions are useful because they ask student to think aloud or share what they are thinking as they investigate a science concept. They are worded to be non-threatening, and will help your quieter students open up and talk about their work. This is an important strategy to give you insight into your students' minds.

In this assignment, you need to write both types of questions. Your questions will be written for use with the cellular respiration lab we do in class.

When you finish, save your work, and submit a copy of this file to the Bb Assignment called "Writing the Right Questions."

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In the table below, write at least THREE of each type of question that would be appropriate for the Plop Plop Boom lesson you will teach in the Girls Science Camp.

Question types	Questions
Engaging Questions	What do you think will happen when we seal the alka seltzer and water in the canister?
	How do you think you can maximize the height your rocket can reach?
	How do you think the amount of alka seltzer will affect the time until your rocket blasts off?
	Do you think you can change anything about the procedure to make your rocket blast off faster? Or higher?
Productive Questions	What are you noticing when you add the alka seltzer to the water?
	What are the differences between more and less alka seltzer?
	What are the differences between more and less water?
	What data did you get for your experiment?
	What are you thinking about as you're working through your procedure?