

Science Communication: Teaching to Your Audience

Lesson: Teaching One Topic at 4 Different Levels

Step 1: Watch the Video

“Drinking Water Explained at 4 different levels”



Step 2: Answer the Following Questions

1. How does Morgan (The Expert) engage her audience and maintain their interest throughout the presentation?
2. Although Morgan discusses the topic of drinking water to people of four different ages with different levels of prior knowledge, she changes the exact topic for each audience. Why do you think she does this?
3. Do you see any method Morgan uses exclusively for one of the audience levels and not the others?
4. Do you think there is anything Morgan could have done better in teaching any of the four levels?

Now think more broadly!



1. As a science communicator, how can you ensure that your audience understands the main points of your explanation, regardless of their level of scientific literacy?
2. Why is it important for science communicators to be able to adapt their message for different audiences?
3. Reflecting on broader society, can you provide real-life examples where poor science communication or a lack of effective dissemination of scientific information has resulted in confusion or misunderstanding among the public? How might these instances have been mitigated with clearer communication strategies?
4. In what ways can you apply the principles of effective science communication in your own life, both inside and outside the classroom?

Step 3: Small Group Activity - Roleplay

1. Brainstorm and choose a scientific concept that you have learned about during this school-year. Your group will teach this concept at 4 different levels.
 - a. Level 1: elementary-aged student
 - b. Level 2: middle school-aged student
 - c. Level 3: high school-aged student
 - d. Level 4: professional
2. Everyone in your group will play the role of “The Expert” at least once. Decide who will teach each level and who will be the audience at each level.
3. As a group, plan and organize the lesson for each level and consider the following:
 - a. How will you engage your audience at each level and maintain their interest?
 - b. How will you adjust your language for each level?
 - c. What teaching methods will you use to enhance your audience’s understanding, and will those differ depending on the level to which you are teaching?
 - d. Will you teach the same exact topic for each level?
4. Now you will do the roleplay for the class!

Science Communication happens in diverse ways and in different settings!

