

Professional Development Situation: Coaching

Skill Focus: Modeling Science Practices

Time Required: 25 minutes

Using Questions to Construct Explanations

The participant will be able to ask questions that allow youth to construct their own explanations.

Agenda

See the Skill in Action— 10 minutes

- [Constructing Explanations](#) video-based learning module

Creating Questions— 15 minutes

Materials

- Computer with internet connection and speakers
- [Constructing Explanations](#) video-based learning module
- Writing paper
- Pen or pencil
- Monarch video - <https://youtu.be/zzEdyWQ0IMk>

Before the Session

- **Read this coaching guide** to become familiar with the content and allow time to personalize the activities to best suit your presentation style.
 - *Italics indicate text that can be read aloud or emailed to the participant.*
- Send an email to the participant being coached:
 - *Our coaching session is scheduled for DATE at TIME. We will focus on “Modeling Science Practices”. Please feel free to contact me with your questions or concerns at CONTACT INFORMATION.*
- Gather all materials needed for the coaching session.

During the Session

See the Skill in Action (10 min)

- Watch skill video under step 3 for the [Constructing Explanations](#) video-based learning module.
- Inform the participant that you will be watching the video a second time. However, this time, as they watch the video, ask the participant to create a list of questions that Alex asks the youth. At the conclusion of the video, have participants evaluate the questions.
 - *Look at your list of questions carefully, put a star next to questions you think are amazing, a smiley face next to questions that you use in practice, and a question mark next to questions you don't think are productive in the afterschool setting. You'll have five minutes to analyze.*

Creating Questions (15 min)

Ask the participant to think about the topic migration of the monarch butterfly. Show the participants a short video at <https://youtu.be/zzEdyWQ0IMk> about butterflies. (You can pick your own topic and video so that it is more relevant to your program, if you choose.)

- After watching the video, you are going to roleplay with the participant. The participant will play the facilitator and you will be a youth. Record the questions the participant asks during the role play session.
 - *We are going to pretend we are in an afterschool program where we have just watched the same movie about monarch butterflies (or the topic that you have chosen). In this scenario, you want me to arrive at a conclusion about what migration is and why monarch butterflies migrate using evidence from the video we just watched. What questions could you ask me to lead me to such conclusions without telling me the answer?*
- After questions have been asked and recorded, look at the questions together. Identify which questions were closed-ended questions (yes or no answers) and which questions were open-ended.
 - *Which questions were closed-ended? Which ones were open-ended? Which questions helped me, a youth, to process the information so that I got to the conclusion I needed?*
- Have the participant reflect on their own questioning style in the classroom.
 - *What changes can you make so that youth will be able to develop their own conclusions instead of you telling them what is happening and/or why?*
 - *Think of a lesson that you are teaching currently or in the near future. What questions can you ask the youth involved? (create a list together)*

- Thank the participant for attending the coaching session. Answer any final questions they have about using questions to help youth construct explanations.

After the Session

- Follow up with your participant to see how they are progressing with asking open-ended questions to help youth construct explanations. Try to be supportive and helpful, not evaluative.

Want to Earn Credit? Click2Science has teamed up with Better Kid Care to provide continuing education units. Check it out at: <http://www.click2sciencepd.org/web-lessons/about>