



DISCUSSION OF CLASSROOM SCENARIOS: FACILITATOR GUIDE

Below are some scenarios for participants to discuss and possibly role play, to practice how they might use the scientific method in their own classrooms. If you have a larger group, consider dividing participants into smaller groups. You may use all four options provided or select among them depending on the needs and interests of your group. Two scenarios are provided for two different domains of the Head Start Child Development and Early Learning Framework.

Options:

1. Scenario 1: Read the scripted activity and identify the strategies being used to engage children in each of the five steps of the scientific method. (Answers are provided in green italics in the left column of the following Scenario 1 table.)
2. Scenario 2: Generate at least two statements/questions for specific steps. (Some possible statements are included in green italics in the right column of the following Scenario 2 table).
3. Scenario 2: Create a detailed script including children's responses, building upon some of the questions generated in Option 2. Be sure to focus on noticing and responding to children's cues. You may include some examples from Scenario 1. Ask participants to write their scripts down on a blank piece of paper.
4. Scenario 1 and/or 2: Role play the scenario based on the script, and extend it to include additional dialog and strategies. Identify one person to be the teacher, at least two to be children and the rest to be observers. Afterwards, discuss the role play as a large group. Comment based on your assigned role of teacher, child, or observer. (What did you notice the teacher doing? How did the children respond? What other ways could teachers implement this strategy?)

Scenario 1: Identifying strategies (Option 1) and role play (Option 4)

Learning domain	Scenario 1	Script	What are the strategies/steps for the <u>underlined</u> comments or questions?
<p>Science Knowledge & Skills</p> <p>(Learning objective: Observe that solids maintain their shape while liquids take the form of their container).</p>	<p>During lunch, a child talks about the Jell-O he made with his family the night before. The teacher creates an activity based on this conversation.</p>	<p>Prior to the lesson, the teacher mixes up some water with gelatin and passes out small cups to students.</p> <p>Teacher: Is the water with the gelatin mixture that you have in your cup a solid or a liquid?</p> <p>Child: Liquid!</p> <p>Teacher: That's right—it is a liquid. Things like water that need a container to have a shape are liquids. <u>What shape is the cup that the water is in?</u></p> <p>Child: My cup is a circle.</p> <p>Teacher: Your cup is a circle, that's right! <u>How could we change the shape of the water?</u></p> <p>Child 1: The Jell-O can get hard and then we can cut it.</p> <p>Child 2: Sometimes we make Jell-O stars at my house.</p> <p>Teacher: That's true—once the Jell-O is hard, we can cut it into different shapes. What about when it is still a liquid? How can we change its shape?</p> <p><u>Teacher passes out various containers of different shapes (e.g., shallow rectangular and square containers) and allows the children to pour their water mixed with gelatin into the different containers.</u></p> <p>Teacher: <u>What shape is the water now? Did it change shapes?</u></p> <p>Child 1: My water is in the square.</p> <p>Teacher: Good—your water is now the shape of a square. <u>What would happen if we didn't pour the water into a container?</u></p> <p>Child: It would spill all over!</p> <p>Teacher: It would spill all over and it would no longer have a shape. Remember things like water that are liquids need a container to have a shape. Let's see what happens when we put our water mixed with gelatin into the refrigerator.</p> <p>Lesson continues after the Jell-O gets hard <u>and teacher discusses with children the differences between liquids and solids.</u></p>	<p><i>The teacher encourages the children to observe.</i></p> <p><i>The teacher helps the class form a question they can answer with an experiment.</i></p> <p><i>The teacher allows the children to experiment with various containers.</i></p> <p><i>The teacher asks the children to observe.</i></p> <p><i>Children make predictions.</i></p> <p><i>The teacher encourages the children to discuss results of the experiment.</i></p>





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