

SCENARIO A

Teachers arrive at a designated location where all teachers from one grade level are scheduled to meet for the day. They have been promised continental breakfast and box lunches and six hours of professional development credit for the day. The outcome of the day is to familiarize teachers with the curriculum, help them know how to use it, and to teach the new inquiry-based instructional methodology the curriculum is based on. The science coordinators spend most of the six hours lecturing about how the curriculum was developed and explaining that it is based on both state and national science standards, show scope and sequence charts of the key strands in the curriculum, explain the pacing guides, and share common benchmark assessments that teachers will use to assess students in science. They learn how the benchmark assessment will be given on a set schedule, how the score will be turned into the principal at each school, and how those scores will be sent to the district office for analysis of how well each school is implementing the curriculum. The coordinators talk about the difference between inquiry and direct instruction and cite the benefits and challenges of both approaches. They show a videotape of an inquiry-based science lesson based on the curriculum and ask teachers if they have questions. Teachers make several comments about the added work and the challenge of each approach. At the end of the day, teachers receive their curriculum guides and are told to call the science coordinators assigned to their school if they have additional questions.

SCENARIO B

Teachers meet regionally in classrooms. As they arrive, they receive their curriculum guides, learn where and what typical science classroom equipment is in their learning room, and are grouped into grade-level teams of four. Each team is instructed to learn how the curriculum guide is organized using a set of questions appropriate to each team. After 20 minutes of exploration, the science coordinator highlights a few key points about the guide and answers questions. In their grade-level teams of four, teachers' next task is to prepare a 25-minute lesson using the curriculum guide. They are asked to make sure their lesson incorporates a few key principles — high student engagement, hands-on, and discovery vs. telling. Teams are encouraged to spend a few minutes clarifying what these terms mean to them and are pointed to several resources in the curriculum guide that might be helpful. They learn that they will present their lesson to another team. The teams have 75 minutes for preparation. After a short break, each team is paired with another team to observe each other's lesson. As one team becomes the students, and a member of the other team teaches the lesson, the three remaining members take notes on how students respond in the lesson. The process is repeated when the other team steps into the teacher and observer role. Teams share feedback with each other using the rubric for an age-appropriate inquiry lesson included in the curriculum guide. Next, teachers in their teams map out the first month of science lessons, what resources and questions they have, how to use the curriculum guide, and what equipment, materials, or other resources they are likely to need. They wrap up the day talking about how this approach to teaching science is both the same and different than what they did before, what they anticipate the benefits will be for students, and what they want students to gain from their learning.

For more information about NSDC's Standards for Staff Development, see www.nsd.org/standards/index.cfm