OELCS Science SVC Module
Parking Lot Questions

Day 1: April 20th, 2007
Day 2: May 18th, 2007

Question 1: ***Can you provide examples on how the activities support the concepts listed on the "science thinking" chart? (Such as sequence of science teaching and productive questions)***
Response: Here is one example of how the Science Thinking Chart could be used as a tool for Interest Center 1: Bubble Scenarios. Remember that this chart is to help you, the teacher, reflect on how the activities you use in your classroom balance the standards, student needs, and your approach to instruction.

	Scientific Inquiry and Ways of Knowing	**Sequence of Science Teaching**	**Productive Questions Used**	**Intentional Teaching and Incidental Learning**
Interest Center 1. Bubble Scenarios	What standards are met through this acitivity? During this interest center students are: • Predicting what will happen next based on previous experiences. (Inquiry Indicator 3) • Using one or more of the senses to observe and learn about objects, etc. (Inquiry Indicator 5) • Exploring objects using simple	Planning for Play: (What materials do I need? Where should I put them? How will students be invited to engage with the materials?) Planning for Exploration: (How will I transition from play to more purposeful learning? What exactly do I want students to learn from this activity? What standards do I want to address?) Exploration:	What types of productive questions might I use when working with students? What do I want them to notice, measure, compare, etc.	What parts of this lesson are incidental and what parts are intentional? Are these two parts balanced? Are children getting enough of BOTH types of learning?

	equipment (Inquiry Indicator 6) • Participating in simple, spontaneous scientific explorations with others (Ways of Knowing Indicator 3)	(What will students do during the exploration? What materials are needed? Where will I put them? How do I want students to document their findings?) Discussion: (How will students share what they have learned? How will I know if they have learned? What am I going to look for when assessing their understanding?)		

Question 2:*How might the process standards be related to play?*
Response: Child's play is science in the pure. Children naturally know how to ask questions, show interest in investigating unfamiliar objects, predict what will happen, use their senses, use simple equipment, make comparisons, and communicate what they find. (Inquiry) Additionally, children naturally offer their explanations for what they find, participate spontaneously with others in scientific explorations (Ways of Knowing), and find numerous uses for common everyday materials. In essence, the process standards are not related to child's play, they ARE child's play.

A teacher's knowledge of the process standards can help to support (scaffold) a child's play. If a child is communicating about a collection of rocks using her senses and making comparisons, the teacher can help to child to think about the rocks in a different way. For example if the child says that one rock is light and the other is dark, the teacher might ask the child how the rocks feel. If the child asks a question the teacher might be there to post the question on chart paper. Later, children may work on finding ways to address the question.

Question 3: *What are some examples of productive questions and their types?*
Response: Productive Questions fall under 6 main categories:

1. Attention-Focusing (Do you notice? Have you seen?)
2. Measuring and Counting (How tall? How many?)
3. Comparison (How are they the same? Different?)
4. Action (What happens if? I wonder…?)
5. Problem Solving (Can you find a way to…? Did anybody have a different way to…?)
6. Reasoning (What are some reasons to explain…Tell me why you think that? What made you decide to do that? Can you please share that with the class at group time?)

These can be found in more detail at the following website: http://www.maisk-6scienceinquiry.org/questions.htm and in the book Primary Science: Taking the Plunge by Wynne Harlan http://search.barnesandnoble.com/booksearch/isbnInquiry.asp?z=y&endeca=1&isbn=0325003866&itm=2

Question 4: ***Is there a comprehensive website that lists specific science activities and suggestions for the Pre-K level.***

Response: The Ohio Resource Center has recently created a website devoted specifically to early childhood educators. The site currently has 114 online science resources, with resources being added on a continual basis. All resources have been reviewed by science specialists and aligned to the Ohio Early Learning Content Standards.

http://rec.ohiorc.org/