

**UNIVERSITY OF MICHIGAN-ANN ARBOR
SCHOOL OF EDUCATION**

DEPARTMENT OF EDUCATIONAL STUDIES
TEACHER EDUCATION PROGRAM
FIELD INSTRUCTOR'S VISITATION REPORT FORM

Student Teacher's Name: Kathryn Rolph

School: Pierce Lake Elementary

Cooperating Teacher: Amy Wagoner

University Field Instructor: Ruth Stielstra

Date of Visit: Thursday, March 19, 2009

Observation Visit: Formal Science UTE Observation

The following activities were engaged in during visit:

Observed instruction

Met with student teacher in a debriefing session

Observation report by domain:

PLANNING, ASSESSING, EVALUATING

Kathryn, you chose and articulated worthwhile purposes and goals in your science UTE lesson plan, evaluated your students' prior knowledge and current understandings, and then carefully adapted the original lesson from the ***Harcourt Science*** curriculum. You made clear connections to the Michigan standards and benchmarks and the district's science curriculum. You stated in your lesson plan students had spent two days, prior to this lesson, performing lab station investigations to help them learn new concepts about electricity. The purpose of your lesson today was to help students summarize and review those new concepts and address misconceptions students may have had prior to the investigations; static electricity, charges, electric force and electric field, electric current and its need for a complete circuit, and the tendency for certain kinds of materials to be either insulators or conductors. You, also, wanted students to present and discuss the findings of their investigations. For example, there are two kinds of charges, positive and negative, and only negative charges can move. Objects with charge have an electrical force (a push or a pull) acting

between them, and this force is only effective within the object's electric field. Opposite charges attract and like charges repel. Electric current is a flow of charges, and it can only travel in a circuit, or path. Materials are either insulators or conductors of electricity, so they either stop the flow of electricity, or electricity can easily pass through them. Finally, you wanted your students to revise a picture model representation of an important concept in electricity based on new information and understandings. Your preparations in planning your lesson were thorough. You reviewed the Electricity KWL chart from a previous lesson and the students' lab station worksheets to see what concepts you wanted to highlight in your discussion. You created an original picture model representation for your students to see and a rubric to guide students as they created their own original scientific picture models about a 'specific situation' involving electricity. You planned to use your students revised picture models to assess whether or not students understood the main concepts from the electricity lab stations and then were able to use them to communicate how electricity works. You also planned to informally assess students from their responses in your discussion and the information they contributed to the "Learned" column of your KWL chart. You used your task commitment and creativity throughout the planning process to independently design a lesson that came alive for you and your students. It showed!

KNOWING AND REPRESENTING SUBJECT MATTER

Kathryn, you demonstrated a thorough knowledge and an understanding of the key concepts in your lesson plan, during the presentation of your lesson, and in your responses to students' questions. You began your lesson with an invitation for your students to become real scientists. 'Boys and girls, today we are going to be scientists and do some of the work that real scientists do. We are going to use the information we have learned from experiments and observations and use that to create a model of electricity.' While volunteer students returned lab station worksheets from the previous two days you posted them on the Smartboard. You and your students reviewed the concept questions from each lab station answering questions and clarifying any misunderstandings during yesterday's lab investigations. You wanted to make certain all students had correctly answered the concept questions. You reviewed the big ideas presented at the lab stations; static electricity and electric current and how the two are related, positive and negative charges and how they interact with each other, and what is necessary for electric current to flow in a circuit. Then you asked your students to take out their ***Electricity Vocabulary Guide*** as you posted the vocabulary sheet on the Smartboard. You asked your student scientists to give

their definitions one word at a time as you filled in the chart on the Smartboard. You reminded students to make sure their definitions were similar to the ones on the Smartboard and to raise their hand if they didn't understand the definition. You established a routine. You introduced each word, asked for a definition, and then a unique way for students to remember the definition? You invited your students to create a picture in their mind. 'Who has a definition for **static electricity?**' 'It means an electric charge that stays on one spot! It's like static electricity on a television set! It stays on one spot!' 'We need a definition for **electric field!**' 'A flow of electric charges! It's like a river current!' 'Our next word is **conductor!**' 'It's the material that lets electricity go through! It reminds me of a train conductor keeping the train moving through!' 'What about **parallel circuit?**' 'It's two or more paths for electricity! That's an easy one! Parallel lines have at least two lines, too!' You acknowledged your students responses throughout the vocabulary lesson with a bevy of your own! 'That's a good one! That's very creative! Oh! That's interesting! I didn't think of that!' When we debriefed you shared with me how surprised you were as you heard the myriad of clever and creative responses to help students remember the vocabulary words. You especially loved the 'train conductor' response. Then, you moved on to complete the **What Have We Learned** column on the **KWL Chart**. Yours was posted on the Smartboard and your students had theirs on their desks. You asked, 'What have we learned about electricity during and after our lab station investigations and vocabulary guides? What do you know now about electricity you didn't know before? Your students responded, 'People are conductors of electricity! Water needs minerals like salt to conduct electricity! A charged styrofoam plate can attract water! A charged comb can attract pieces of paper! Hair is attracted to a charged balloon! Electricity is like magnets! Static electricity is electricity that doesn't move! Opposites attract! You reinforced student understanding with your own questions and comments by providing additional information reflecting your thorough knowledge of the content. Suddenly the room was quiet. You allowed your students to linger in this moment for awhile. You were giving your students time to think and reflect at a deeper/ higher level. Then you thoughtfully asked, 'Was there something that surprised you when you were completing the electricity labs? Did you get a different result than you expected?' A flood of student responses filled the air waves of your classroom, this time with supporting detail reflecting an even greater understanding. During our debriefing you told me YOU were surprised at the number and content of student responses AFTER the quiet period when you asked your question regarding student surprises during their lab investigations. In fact, you wanted to think of additional questions you could ask to generate even more thoughtful student responses as you go forward in your teaching. You

understood the importance of giving your students ‘thinking time’ to answer a thinking question! Bravo! Next, you moved to the **Questions/What Do I Want to Know** column of the **KWL Chart** and invited your classroom of electricity experts to answer their original electricity questions they had identified at the beginning of the unit. You came prepared as you posted additional information on the Smartboard to help answer a question you felt might be difficult for your students to answer, ‘How hot is electricity?’ As we debriefed you mentioned how pleased you were when your students were able to answer their original questions on the **KWL Chart** generated only a week ago! Kathryn, you designed and adapted teaching materials and used multiple instructional strategies to promote student learning and student success in your lesson. You were indeed the ‘master’ of the content!

KNOWING, MOTIVATING, AND ENGAGING STUDENTS

You know your students and you know them well. You attended to your students strengths, prior knowledge, and needs as learners throughout your lesson. You invited your students to think more deeply as they analyzed, synthesized, and evaluated their best efforts in class discussions and creating their picture models. Next, student volunteers distributed the original scientific model pictures drafts on electricity. You gave the assignment. You asked students to create a revised picture model incorporating the new information they had learned. They were excited! You discussed how they might change their models based on what they had learned from the electricity labs. You pointed to the ideas in the **What I Have Learned** column of the **KWL Chart** as new ideas that might help students make their models better. You explored with your students the meaning of a scientific model. ‘A scientific model is a representation of a scientific phenomenon. A model helps us to show something in science that we cannot easily observe with our senses. So, your picture models are going to communicate what electricity is and how it works through the use of pictures and words, since we cannot observe, or see, all of the details of electricity.’ Rubrics were distributed and instructions for using the rubrics to create the picture models were specific and clear. You stated, ‘The model must demonstrate a specific situation. It must be easily read and understood by someone who doesn’t know much about electricity. It must include labels and two or three sentences using at least two vocabulary words. The models will be compiled into an **Electricity/Magnetism** booklet. The picture model must be the student’s best work.’ You provided an opportunity for your students to create a real product to celebrate their learning. It would be showcased into a real booklet and shared with a real audience. Does

life at school get better than this! You created an original demonstration picture model on electricity and showed your representation to your students. You pointed out the requirements on the rubric and explained how they were incorporated into your model. This original representation of a picture model proved to be valuable to your students as they viewed it on the whiteboard and created their own! Then you invited students to offer specific ways they might change their models, either to make the model more accurate or to communicate their ideas more clearly. They were ready! You wrote ideas on the Smartboard. 'How electricity travels on a circuit board! How a balloon attracts another object! How electricity travels through water! How a light bulb lights up! This opportunity to brainstorm ideas, also proved to be exceedingly helpful to your students. Finally, blank paper was distributed and as you moved around the classroom students began creating their own revised scientific picture model about a specific situation involving electricity. First, titles were proudly written out in carefully designed lettering at the top of each paper. **'HOW A TELEVISION IS TURNED ON! HOW ENERGY FLOWS TO A STEREO! HOW ELECTRICITY GETS TO YOUR HOME! HOW A BATTERY SENDS ELECTRICITY! HOW A LAMP WORKS! HOW STATIC CLING CLINGS!** When we debriefed you told me you were surprised your students so easily gave examples of 'specific situations' to use for their picture models. You were, also, pleased when your students transferred the 'specific situation' into their final picture model with similar confidence. As we debriefed further you shared with me that you wanted to continue looking for ways to engage your students even more in your lessons. We discussed what might have happened if you had given your students an opportunity to share ideas with their desk partners before revealing responses to you. You said you wanted to try out the idea in future lessons. Detailed pictures and diagrams, some with a 'zoom out' feature like yours, were carefully labeled. Complete sentences housing appropriate electricity vocabulary words were added. I don't know who was more proud of your students achievements, you or your students AND I was proud of you!

BUILDING CLASSROOM COMMUNITY

Kathryn, you respect and understand children. You have a teacher's voice! You know how to speak to children, praise them in an infinite number of ways, and validate their suggestions and answers. 'Your picture models are so beautiful! All of them! Be sure to go through your rubric and check those things off!' You showcased an always positive and respectful manner working with or speaking to individual students or the entire class. 'That's a good question! I'm not exactly sure of the answer, but let's find out! Boys and girls, thank your for being seated

now. Be colorful! Be creative! Show your best work!' You were a dedicated, young practicing professional diligent in your manner as you created an environment where learning was valued. Your students were respectful of others and their ideas throughout the class discussion. I observed no management concerns. If students had an idea to offer or wanted to ask or answer a question, they raised their hand and waited for you to call on them. When students were working on their electricity model pictures, they worked quietly with their desk partners. This respectful and caring management style has become a well practiced routine between you and your students. I observed an entire classroom of students who were learning and appreciating one another. As we debriefed you reminded me how you wanted to continue working on classroom preventive management as one of your goals, especially when your students were working at their lab stations. We talked about the benefits of having a small group of students 'role-play' for the class or small groups throughout the class 'rehearse' expectations for group behavior at lab stations. We also talked about the importance of calling on volunteer students to repeat directions/expectations just before students were to be dismissed to begin working at lab stations. You made accommodations to meet the full range of your students. You understood your students learn in a variety of ways and your caring concern to have all of your students achieve success was evident! You asked your low-performing focus student to give you a specific way he might change his picture model using the new ideas he had learned. This allowed you to make certain he understood expectations and to clarify instructions if needed. At the same time your high-performing focus student knew he was expected to clarify the ideas in his picture model with a far more detailed written description to supplement the drawings in the model. Throughout the lesson your students were focused, engaged in your lesson, and respectful of you and each other.

BECOMING A MEMBER OF A PROFESSION

Kathryn, you continue to conduct yourself as a practicing professional throughout your student teaching experience. You interact professionally and respectfully with students, colleagues, and mentors alike. You have consistently demonstrated and modeled reliability, responsibility, and ethical behavior. Observing your professional and personal growth as a student teacher on her way to becoming a 'well-started' beginner continues to be my honor and privilege. Kudos to you for your task commitment assessing, planning, and teaching this lesson. Kathryn, you possess a quality that cannot be taught! You have the 'heart' of a teacher! You will make the difference in the lives of the students you teach and the school family around you!