

Step 1: 15 Minute Discussion

The Candle Volume Concept Cartoon Discussion

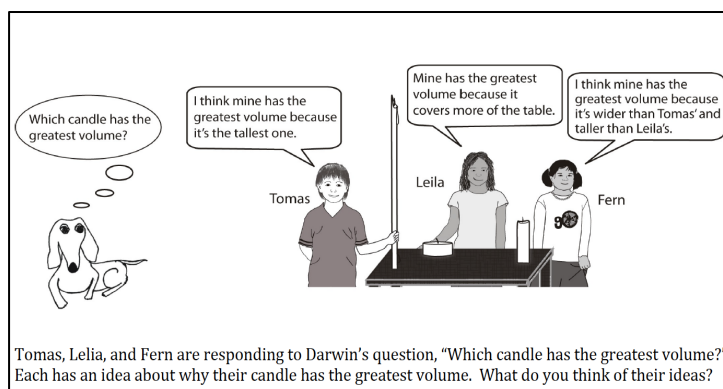
(Recording a class discussion before you begin the 4th Grade Talk Science Program)

Time: 30 minutes with introduction and written reflection

The Pathway Study begins with a short 15-minute all-class discussion. This discussion is about a concept cartoon in which a dog, Darwin, poses the following question, “Which candle has the greatest volume?”

Rationale for this request:

The purpose of this first discussion is to provide baseline data about your current class discussions. At the end of the pathway study, you’ll lead the same discussion again to see what changes have occurred as a result of your professional learning. The pre/post discussion is one of several self-assessment tools provided as part of the Talk Science program.



Background: Concept Cartoons are used throughout the Inquiry Curriculum (Gr. 3-5-) to assess students' science ideas and discussion skills. Your students may remember Darwin from the third grade Inquiry Curriculum. They meet him again here.

How to conduct and audio record the discussion:

Conduct the concept cartoon discussion as you would normally lead a whole group discussion. The discussion itself should take about 10 -15 minutes. Allow 25-30 minutes with introduction and time for students to write.

Before the discussion:

1. Have an audio recorder on hand to use during the discussion.
2. Turn on the recorder to make sure it is working. If not, check the batteries, the most likely cause of a problem. If necessary, switch to fresh batteries.
3. Make sure you have a copy of the cartoon for each student. (Page 3 of this file.)
4. Have one copy of the *Goals and Talk Moves Tool* and one copy of the *Reflection Tool*. You'll use these tools throughout the program to keep track of your own progress and that of your students.

During the discussion:

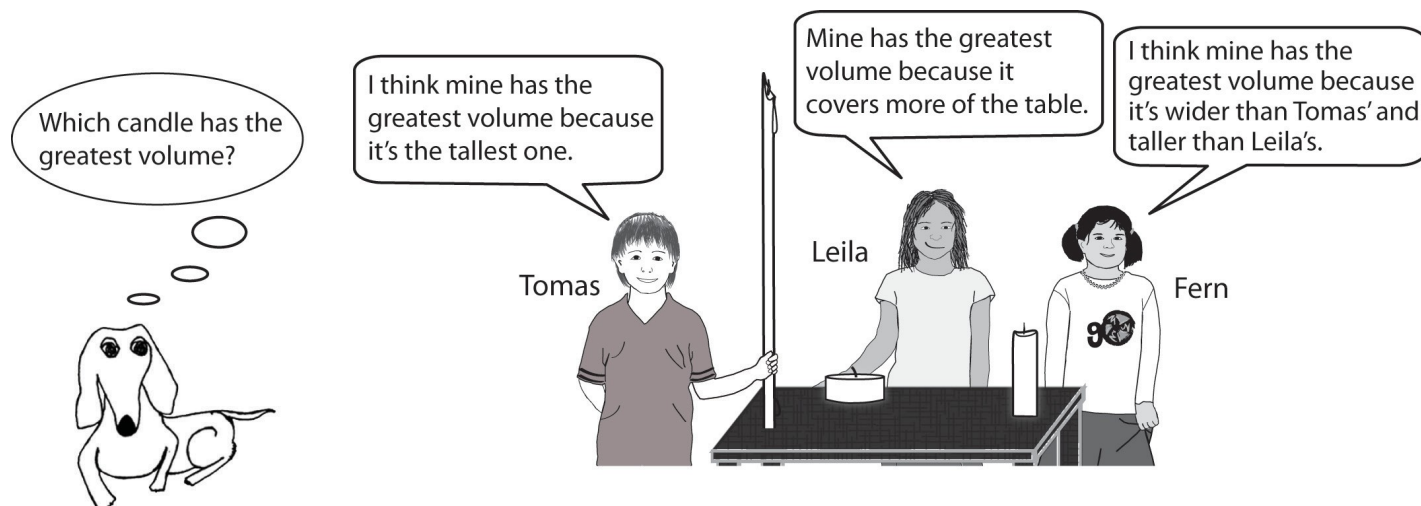
1. Have the children sit in a circle. (This configuration will produce better audio.)
2. Give each student a copy of the cartoon and explain that you'll be discussing Darwin's dilemma.
3. Put the audio tape recorder in the center of the circle and press the RECORD button to begin the recording.

4. **Important:** At the beginning of the recording, **record your class identifying information**, for example: “*This is Ms. _____’s fourth grade class recording on January 18, 2011 with 25 students discussing Darwin and the Candles.*”
5. Engage in the discussion with your students. Encourage students to speak loud enough for all to hear.
6. When the discussion is finished, press **STOP** on the recorder and then turn off the recorder.

Following the discussion:

1. Ask students to write a brief reflection on the back of the cartoon saying what they thought before the discussion and what they think now. As students write, reflect on the discussion yourself using print outs of the following two teacher tools: *Goals and Talk Moves Tool* and the *Reflection Tool*.
2. Collect students’ reflections and save with your own reflection. Save the audio file to a computer file. We’ll return to these baseline data at the end of the program. File them in a folder or notebook devoted to this program.

Congratulations! You’ve completed the first Step in the Pathway.



Tomas, Leila, and Fern are responding to Darwin's question, "Which candle has the greatest volume?" Each has an idea about why their candle has the greatest volume. What do you think of their ideas?