

Institute Objective

To improve science instruction by providing district-level trainers with professional development resources focused on facilitating students' scientific content understanding through science processes and practices.

Time	Notes	Materials
8:30-9:30	VA DOE: General Session: Rigor, Blooms Taxonomy, The Case for Change	
9:30-9:45	Icebreaker	Wordle
9:45-10:45	Using the 2010 Standards of Learning Curriculum Framework, have participants create terrariums to investigate and understand the concepts outlined above. Examples of terrariums can be found at www.bottlebiology.com Generate questions based on terrariums and pre-made examples Question sort- Descriptive, Historical, Experimental Share- make more testable Create their own terrarium How do you manipulate to create experiment?	Soil, Sand, Gravel, Plastic Bottles, Box cutters, seeds, small plants, small organisms (eg. worms, snails, meal worms), containers for water, leaves, sticks, small rocks, thermometers Lesson 5 E 4 question strategy
11:30-11:45	Each group shares what they created and how it addresses the standards they need to teach Possible Extensions e.g. outdoor classrooms, gardens	Sticky note poster paper, markers Copies of 2010 Standards of Learning
10:45-11:15	Have Participants in three groups, one will read Rigor Redefined, one reads Talk Science Primer (pages 1-5), one reads Essential Features of Inquiry- use Jigsaw I got it, question, important piece Small group, questions, conclusions, share out	Three different color sticky notes (small) Rigor Redefined Talk Science Primer Essential Features of Inquiry Jigsaw Bloom's taxonomy information
11:15-11:30	Compare and Contrast- Box and T :5E vs. Traditional rigor, discourse, inquiry, symbols Examples of lessons without rigor- worksheets, matching, circling answers Define the SOL to be covered Select example lessons that address each standard to be covered and that are traditional lessons	Copies of 2010 Standards of Learning Worksheets for each lesson- traditional Box and T compare and contrast
11:45-	Foldable	Fiction or Nonfiction book for literature connection

Time	Notes	Materials
12:00	Create pyramid- all are important to support learning Tool for note taking during workshop Questions, Connections other science standards and content areas;	Copies of template for pyramid Scissors Tape
12:00- 12:45	Lunch	
12:45- 1:00	Example from morning, goal this afternoon is to apply to lessons selected and assess (can use Science 2003 or Science 2010 Enhanced Scope and Sequence Lessons)	Power point include assessment piece and TEI 5 E handout
1:00- 2:15	Participants get into grade level groups. Grade levels will make over lessons to include discourse, rigor, inquiry, symbols and tools. Should include assessment. Summarize lesson on flip chart	Copies of 2010 Standards of Learning 5 E template Copies of Lessons selected Assessment Ideas Blooms Taxonomy information
2:15- 2:45	Gallery walk- Participants share lessons they created. Record assessment ideas. Would be nice to share all lesson ideas created by participants with the group	Large Post-It paper for Gallery Walk for assessment Ideas
2:45- 3:15	Mixed pair share- summary of main topics	
3:15- 3:30	Wrap up, next steps	