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| Time & ***Duration*** | Presenter | Agenda/Topic | Description/Notes/Process | ***Materials/Logistics*** |
|  |  | **Preparation** | * Set up presentation technology & music * Put up Parking Lot Poster * Put up Feedback Poster * Stage handouts * Set up tables | * Parking Lot Poster * Table boxes * Table Signs * Journals * Box of handouts |
| **8:00-**  **8:30** |  | **Sign-In** | * Remind participants to sign in * Notebooks * TPEP Reflection Handout   **(2 minute warning for the opening)** | * Sign in sheet * Name tags * Music |
| **8:30-**  **8:45**  10 |  | **Opening:**  **Framing the Day** | **Welcome Participants**  **Introduce Co-Presenter(s)**  **Logistics & Session Design**   * Rest Room location * Locate the Parking Lot Poster * Learning Intentions & Agenda (See TPEP Reflection sheet w/doc camera) * TPEP Reflection Sheet can be used to capture ideas to improve instruction throughout the day * Lunch on your own   **Frame**: | * Parking Lot Poster * TPEP Reflection Sheet |

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| Time & ***Duration*** | | Presenter | Agenda/Topic | Description/Notes/Process | ***Materials/Logistics*** |
| **8:45-**  **9:00**  **15** |  | | **The Three Dimensions of the NGSS** | Brief overview of the 3 Dimensions of the NGSS  Transition to Web Based NGSS Site to show the connections between the three strands. | HO:  The Framework in a Nutshell (OSPI) |
| **9:00-**  **9:20**  **20** |  | | **Looking Deeper at One Science Practice** | **Hand out the document: Dimension 1 Science and Engineering Practices and provide time for participants to make sense of it.**  Ask participants to read SEP #7 (both columns)  Ask participants to identify similarities and differences for both columns.  What are the similarities?  Ask participants to respond to the “Students Should” prompt on the slide.  (consider Think-Write-Pair-Share)  Display bulleted attributes and compare to participant responses.  **Transition**: Argumentation from Evidence is a practice found in CCSS math, ELA and NGSS.  Studies show that students have not had enough opportunity in science to engage in discourse with peers to develop, advocate for and defend a claim.  Teachers feel pressure to quickly debrief after an activity or investigation and move on.  Introduce the Five Stage Scientific Argumentation Process depicted in Sampson’s book. (See Slide)  We are going to immerse you in a simulation that goes through the steps that can be used to help both teachers and students through the argumentation process. | HO: Dimension 1, Science and Engineering Practices |

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| Time & ***Duration*** | | Presenter | Agenda/Topic | Description/Notes/Process | ***Materials/Logistics*** |
| **9:20**  **9:35**  **15** |  | | Why do guppies used in science modules sometimes look different? | Guppies used in STC Science are native to tropical freshwater ecosystems like those found in Venezuela.  What might be the cause of this difference in appearance?  To bring context to our students for an activity in Scientific Argumentation in Biology, build a bit of background first.  Perhaps they could think about where we are located and perhaps other places they have been to? (This is a GLAD Strategy)  Talk with a partner and talk about what you observe or any questions you have from these photos or from the map on the previous slide. (GLAD Strategy)  Transition:  After a quick break we will dig into an instructional model for engaging in argumentation from evidence. We will investigate some data and develop an argument to answer the question about the variable appearance of guppies. |  |
| **9:35-**  **9:50**  **15** | Break | | | | |

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| Time & ***Duration*** | | Presenter | Agenda/Topic | Description/Notes/Process | ***Materials/Logistics*** |
| **9:50-**  **10:00**  **10** |  | | **Construction of a Viable Argument: Using Claims, Evidence, and Reasoning** | Introduce the Five Stage Scientific Argumentation Process depicted in Sampson’s book.  This process engages all learners and has several strategies that explicitly meet the needs of our migrant students.  You will use this process to construct and refine an argument to explain the difference in guppy appearance. Your argument will contain a claim, evidence and justification, or reasoning. | Book: Scientific Argumentation in Biology, Victor Sampson |
| **10:00-**  **10:05**  **5** |  | | **Construction of a Viable Argument: Stage 1** | **Process**:   1. Show slide for **Stage 1** – Identify the Tasks and Question. 2. Form groups of two or three. 3. Each group reads p19-20 – Color Variation in Venezuelan Guppies from Scientific Argumentation in Biology. 4. Check for understanding of the task. | HO: Color Variation in Venezuelan Guppies |
| **10:05-**  **10:15**  **10** |  | | **Reading for Understanding** | **Pre Reading: Text Features for Color Variation in Venezuelan Guppies**   1. With a partner skim through pages 19-23 2. Jot down a few text features you see in the text 3. Predict what you think will be in the text | HO: Color Variation in Venezuelan Guppies |

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| Time & ***Duration*** | Presenter | Agenda/Topic | Description/Notes/Process | ***Materials/Logistics*** |
| **10:15-**  **10:30**  **15** |  | **Pre-Reading:**  **Looking at Data – Page 21** | **Process**:   1. Read the text of the packet. 2. Return to Table 2.1. 3. Use the strategy “Highlights, Comments, and Captions” to analyze Table 2.1. (See 3 PPT slides and prompts) | HO: Color Variation in Venezuelan Guppies |
| **10:30-**  **10:35**  **5** |  | **Pre-Reading:**  **Looking at Data – Page 22** | Direct participants to Page 21. Encourage them to connect the data of page 21 to the map on page 22. | HO: Color Variation in Venezuelan Guppies |

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| Time & ***Duration*** | Presenter | Agenda/Topic | Description/Notes/Process | ***Materials/Logistics*** |
| **10:35-**  **11:00**  **25** |  | **Stage 2 – Generation of a Tentative Argument: Analyze data**    **Stage 2 - Generation of a Tentative Argument: Gallery Walk #1** | **Transition**:  Now you should analyze all of the data from the scenario for trends and patterns  **Process**:   1. Groups should look for patterns, trends, differences or relationships in the data provided on p21-22 2. Ask groups to create a chart of their summarized, supportive data. 3. Prepare for Gallery Walk #1.   It’s time to gather more data from other groups. You will use this collective data to make a claim about improving a factory subsystem.  **Process**   1. Collaborate with your group to create a poster that summarizes observations and other data from the scenario. 2. Groups will display their data posters. 3. Have participants look at the results of other groups.    1. Provide about 10 minutes to look for patterns, trends, differences or relationships.    2. Add data harvested from other posters to your group’s data.    3. Incorporate a quick break into this “gallery walk”. |  |
| **11:00-**  **11:15**  **15** |  | **Stage 2 - Generation of a Tentative Argument** | **Process:**   1. Ask groups to create the following graphic. (see slide) on chart paper 2. Groups should identify their question, claim, and any evidence from their group or other groups that had a similar question. 3. Groups should bring their question, claim, and evidence together to make a justification about the answer to their question |  |

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| Time & ***Duration*** | | Presenter | Agenda/Topic | Description/Notes/Process | ***Materials/Logistics*** |
| **11:15-**  **12:00**  **45** |  | | **Construction of a Viable Argument: Using Claims, Evidence, and Reasoning – Stages 3-4** | **Process:**   1. **Stage 3** – Gallery Walk #2 - 20 Minutes    1. Distribute Gallery Walk Interview Questions and have participants read.    2. Groups should keep an expert with their tentative argument while others rotate to other groups. (In the classroom teachers might want to structure this more tightly)    3. Ask participants to go to three different groups to gather the ideas from that group regarding their arguments.    4. Participants should listen to the docent’s answers to questions from others. Avoid repeating questions.    5. Provide positive feedback related to observations and data to the docents. 2. **Stage 4** - Original groups reconvene and discuss what they learned by interacting with individuals from other groups.    1. Modify original ideas based on feedback and ideas of others input    2. Facilitate a whole room discussion encouraging participants to share what they learned about the design challenge.    3. Surface common challenges faced by groups. 3. **Stage 5 -** Talk through the construction of the final argument with the whole room. | HO: Argumentation Gallery Walk Interview Questions |

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| Time & ***Duration*** | | Presenter | Agenda/Topic | Description/Notes/Process | ***Materials/Logistics*** |
| **12:00-**  **12:15**  **15** |  | | **Reflecting on the Morning** | Revisit the Learning Intentions for the day. (See slide)   1. Ask participants to revisit the strategies and ideas of the day. 2. Have them turn and talk to a partner about what ideas they might take back to their classroom or colleagues.   *This is an opportunity to add a comment to their TPEP Reflection Sheet.* | TPEP Reflection Sheet |
|  |  | | **Opening** | 1. Review of goals 2. Transition statement |  |

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| Time & ***Duration*** | | Presenter | Agenda/Topic | Description/Notes/Process | ***Materials/Logistics*** |
|  |  | | **WA 2009 Conclusion Item Specs** | **Focus** – Ask participants to describe the requirements for a 2 point response to a Conclusion Item to activate their thinking  Think, Pair, Share  **Explore** – Observe the Item Specs (5th, 8th, 10th). Observe the various rubrics.  **Reflect** - Revise original thinking about Conclusion Item requirements  **Apply** – Use rubrics to score student responses and Argumentation from Evidence posters |  |
|  |  | | **Constructing Items** | 1. Participants will need to identify/bring the following: 2. A unit of study that will occur before the next Session. 3. An investigation from the unit that generates data (or an activity that has data) that lends itself to constructing a Conclusion. 4. Craft the prompt for the Conclusion Writing Item 5. Provide a Conclusion Writing Item template to participants 6. Share Conclusion Writing Item prompts with others in the room, provide/receive feedback. 7. Incorporate feedback to refine Conclusion Writing Item prompts |  |

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| Time & ***Duration*** | | Presenter | Agenda/Topic | Description/Notes/Process | ***Materials/Logistics*** |
|  |  | | **Instructions/Expectations for participants** | UseConclusion Writing Items with students  Return with unscored student responses |  |
|  |  | | **Evaluation** | Participant Survey Instructions  Provide time for participants to complete the survey |  |