

## Spring 2015: Cohort 1

### Workshop Agendas

#### Workshop 1

Time		Activity
9:00 am	(15 min)	<b>Arrival</b> <ul style="list-style-type: none"> <li>○ Greetings</li> <li>○ Sign in on attendance sheet</li> <li>○ Fill out a nametag</li> <li>○ Take headshots</li> </ul>
9:15 am	MA (15 min)	<b>Welcome, Today's Agenda and Goals</b> <ul style="list-style-type: none"> <li>○ Introductions of this year's SPARK fellows</li> <li>○ Designing engaging activities</li> <li>○ Get each started on identifying key points of your work</li> </ul>
9:30am	DL (20 min)	<ul style="list-style-type: none"> <li>• <b><u>Introductions &amp; Personal Motivations (20 minutes)</u></b> <ul style="list-style-type: none"> <li>○ Learn more about SPARK group and their motivations. Have everyone share info.</li> <li>○ <i>We'd like to learn more about the group and your motivations for being here. We'll go around the room and everyone will share:</i> <ul style="list-style-type: none"> <li>▪ Your name</li> <li>▪ Where you're from</li> <li>▪ You're area(s) of scientific research or expertise</li> <li>▪ Your favorite childhood toy?</li> </ul> </li> <li>○ Questions for group                             <ul style="list-style-type: none"> <li>▪ <i>Why is science communication important to you?</i></li> <li>▪ <i>What are some of your challenges or barriers to communicating your science?</i></li> </ul> </li> </ul> </li> </ul>
9:50am	MA (20 min)	<ul style="list-style-type: none"> <li>• <b><u>Activity: Pleasure of Finding Things Out</u></b> <ul style="list-style-type: none"> <li>○ Round 1 (3 minutes): investigate mystery boxes</li> <li>○ Round 2 (5 minutes): leave their boxes and notes at seat and rotate to a new black box.</li> <li>○ Round 3 (3 minutes): Change boxes again, and this time work collaboratively with someone on another box.</li> <li>○ <b>Intended Learning Outcomes:</b> <ul style="list-style-type: none"> <li>▪ <i>Science is a journey</i></li> <li>▪ <i>The most essential tool of inquiry is inference. Without uncertainty, inquiry is impossible.</i></li> </ul> </li> </ul> </li> </ul>
10:10 am	MA (20 min)	<ul style="list-style-type: none"> <li>• <b><u>Activity: Learning from Effective Tabletop Activities</u></b> <ul style="list-style-type: none"> <li>○ The Inquiry Spiral handout</li> <li>○ Share examples of various GLSC tabletop/cart activities</li> <li>○ Discuss online activity development resources</li> <li>○ Sticky Learning Handout</li> <li>○ <b>Intended Learning Outcomes:</b> <ul style="list-style-type: none"> <li>▪ <i>Questioning assumptions and making new inferences can be the tests for new learning.</i></li> </ul> </li> </ul> </li> </ul>

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10:30 am	(15 min)	<ul style="list-style-type: none"> <li>• BREAK</li> </ul>
10:45 am	DL (45 min)	<ul style="list-style-type: none"> <li>• <b><u>Activity: Concept Mapping</u></b> <ul style="list-style-type: none"> <li>○ Pass out <b><u>Concept Map</u></b> Handouts. Introduce and explain the point of a Concept Map to scientists.           <ul style="list-style-type: none"> <li>▪ <i>The goal of the Concept Map is not to outline a specific presentation, but rather to build a toolbox of strategies and approaches for you to use as you seek to communicate a particular concept or slice of your work to the general public</i></li> <li>▪ <i>This Concept Map can also be used for activity development as it will help focus and define your activity's scope</i></li> </ul> </li> <li>○ Individuals work on 1-2 Concept Maps (20 minutes)</li> <li>○ Group discussion (10 minutes)</li> <li>○ Individuals work (10 minutes)</li> <li>○ Group-brainstorm to help people who are stuck with a particular concept or bubble (5 minutes)</li> <li>○ <b>Intended Learning Outcomes:</b> <ul style="list-style-type: none"> <li>▪ <i>Don't try to communicate everything. Pick a specific concept, topic or area of your work to focus on.</i></li> <li>▪ <i>Think about communicating your science from your audiences' point of view. What are your Big Idea, and 3 key messages?</i></li> </ul> </li> </ul> </li> </ul>
11:30 am	(15 min)	<ul style="list-style-type: none"> <li>• <b><u>Activity: Personal Learning (15 minutes play, worksheet, share)</u></b> <ul style="list-style-type: none"> <li>○ Play with <i>Pintacudas</i> then use worksheets (5 minutes)</li> <li>○ Share (5 minutes): Go around room and read answers directly from sheet.</li> <li>○ Reflection (5 minutes reflect on worksheet):</li> <li>○ <b>Intended Learning Outcomes:</b> <ul style="list-style-type: none"> <li>▪ <i>People enter have their own personal motivations, curiosities, understandings, interests, and conceptions that they bring with them to an experience. We can create engaging and meaningful experiences by acknowledging and accommodating what individuals bring with them. As a facilitator, we can use this information to help us decide where to take an activity next.</i></li> </ul> </li> </ul> </li> </ul>
11:45 am	(30 min)	<ul style="list-style-type: none"> <li>• BREAK, Lunch and watch TED Talk "Tyler DeWitt: Hey Science Teachers - Make it Fun"</li> </ul>

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12:15 pm	MA (30 min)	<ul style="list-style-type: none"> <li>• <b>TED Talk Discussion</b> <ul style="list-style-type: none"> <li>○ Share an example of a scientific concept you remembered only because you or a teacher made it fun.</li> <li>○ What are some of the reasons DeWitt's mentions that his students were disinterested in learning about viruses?</li> <li>○ Must we "dumb down science" in order to make it fun?</li> <li>○ Do you think it is possible for you to be scientifically accurate about your work and still tell a good story?</li> </ul> </li> </ul>
12:45 pm	DL (15 min)	<ul style="list-style-type: none"> <li>• <b><u>Wrap-up (15 minutes)</u></b> <ul style="list-style-type: none"> <li>○ <b>Explain what's next</b> <ul style="list-style-type: none"> <li>▪ <i>Please spend additional time thinking through your <u>Concept Maps</u> and utilizing the activities development resources.</i></li> <li>▪ <i>One-on-One Meetings: once between January 20-February 3</i></li> <li>▪ <i>At our next workshop we will ask you to give a brief update to the group on your activity development.</i></li> <li>▪ <i>Also, for next time please look at the dates and come prepared, as best you can, to sign up for your four Public Programs for 2015.</i></li> <li>▪ <i>Next workshop is "How People Learn" - Saturday, January 24 from 9am-1pm, Classroom 208</i></li> </ul> </li> <li>○ <b>Before you leave today...</b> <ul style="list-style-type: none"> <li>▪ Sign up for One-on-One Meeting date (be sure to write where we will be meeting)</li> <li>▪ Complete Workshop 1 Evaluation</li> </ul> </li> <li>○ <b>Thank you</b></li> </ul> </li> </ul>

### Workshop 2

Time		Activity
9:00 am		<b>Arrival</b> <ul style="list-style-type: none"> <li>○ Greetings</li> <li>○ Sign in on attendance sheet</li> <li>○ Individual Photos</li> <li>○ Review Public Program dates</li> <li>○ Pintacudas activity</li> </ul>
9:15 am	DL (10 min)	<b>Welcome, Today's Agenda and Goals</b> <ul style="list-style-type: none"> <li>○ Fellows share their developing activity plans</li> <li>○ Exploring how people learn, and barriers for learning</li> <li>○ Get familiar with the exhibits and museum floors</li> </ul>

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9:25am	DL (25 min)	<ul style="list-style-type: none"> <li>• <b><u>Discussion: Fellows Share</u></b> <ul style="list-style-type: none"> <li>○ Fellows share developing plan for SPARK activity           <ul style="list-style-type: none"> <li>▪ <i>Now that we have had one workshop and our one-on-one meetings; each of you should be narrowing in on your plan for your SPARK activity</i></li> <li>▪ <i>3 minutes each and share the following information:</i> <ul style="list-style-type: none"> <li>• <i>Share your SPARK “big idea”</i></li> <li>• <i>Share some of your key messages</i></li> <li>• <i>Share your plan (outline) for SPARK activity</i></li> <li>• <i>Share any concerns/excitements about activity</i></li> </ul> </li> </ul> </li> </ul> </li> </ul>
9:50am	MA (25 min)	<ul style="list-style-type: none"> <li>• <b><u>Activity: “Elements of Meaningful Experiences”</u></b> <ul style="list-style-type: none"> <li>○ Lifelong and Life-wide Learning chart and discuss study (5 minutes)</li> <li>○ Individual Reflections (3 minutes)</li> <li>○ Share individual reflection with a partner (7 minutes)</li> <li>○ Generate a list of “Elements of Meaningful Experiences” (5 minutes)</li> <li>○ Group discussion (5 minutes)</li> <li>○ <b>Intended Learning Outcomes:</b> <ul style="list-style-type: none"> <li>▪ <i>Learning is inherently personal, with real meaning-making happenings within the individual learner</i></li> <li>▪ <i>As facilitators, we will support this learning by working on these qualities and paying attention to the unique needs and interests of the learners in front of us.</i></li> <li>▪ <i>Informal learning experiences don’t just “happen,” though it often feels like that to the learner.</i></li> </ul> </li> </ul> </li> </ul>
10:15 am	MA (5 min)	<ul style="list-style-type: none"> <li>• <b><u>Presentation: Constructivist Learning/Prior Knowledge</u></b> <ul style="list-style-type: none"> <li>○ <b>Intended Learning Outcomes:</b> <ul style="list-style-type: none"> <li>▪ <i>Learning is not the passive acceptance of knowledge, which exists “out there” but that learning involves the learners engaging with the world.</i></li> <li>▪ <i>All knowledge is created or constructed through personal experience</i></li> <li>▪ <i>In order to teach effectively, one must focus on the learner and how they learn</i></li> </ul> </li> </ul> </li> </ul>
10:20 am	(15 min)	BREAK

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10:35 am	MA (30 min)	<ul style="list-style-type: none"><li>• <b><u>Activity: Discovery on the Exhibit Floor</u></b><ul style="list-style-type: none"><li>○ Introduction, guiding questions, and wayfinding (5 minutes)<ul style="list-style-type: none"><li>▪ What characteristics of materials do you see that draw out curiosity and exploration? What's the relationship between "stuff" and "behavior?"</li><li>▪ Are there differences in behavior within different exhibit areas?</li><li>▪ Are there differences in behavior between groups, pairs, and individuals?</li><li>▪ Did you notice people of different ages using the same exhibit in different ways?</li></ul></li><li>○ Explore the 1<sup>st</sup> and 2<sup>nd</sup> floors independently (15 minutes)</li><li>○ Gather in classroom to share observations (10 minutes)</li><li>○ <b>Intended Learning Outcomes:</b><ul style="list-style-type: none"><li>▪ <i>Develop a broader understanding of how people learn and the nature of informal learning environments</i></li><li>▪ <i>Observe how informal science activities invite learners to explore concepts that are new or unknown by referring to prior experiences or apply common materials</i></li><li>▪ <i>Become aware of exhibits that illustrate concepts, principles, and systems relevant to your own work</i></li><li>▪ <i>Become more familiar with the museum: its exhibits, floor layout, and visitors</i></li></ul></li></ul></li></ul>
11:05 am	DL (10 min)	<ul style="list-style-type: none"><li>• <b><u>Discussion: "Fish is Fish"</u></b><ul style="list-style-type: none"><li>○ Read <u>Fish is Fish</u></li><li>○ Discussion about <u>Fish is Fish</u></li><li>○ <b>Intended Learning Outcomes:</b><ul style="list-style-type: none"><li>▪ <i>Learning is inherently personal, with real meaning-making happenings within the individual learner</i></li></ul></li></ul></li></ul>

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11:15 am	<i>DL (25 min)</i>	<ul style="list-style-type: none"> <li>• <b><u>Activity: Building a Common Vision (Strategies For Communicating Complex Ideas)</u></b> <ul style="list-style-type: none"> <li>○ Provide a general overview (5 minutes)</li> <li>○ Round 1 (5 minutes)</li> <li>○ Reflection on Round 1</li> <li>○ Round 2 (5 minutes)</li> <li>○ Reflection on Round 2</li> <li>○ Round 3 (5 minutes)</li> <li>○ Generate final “Strategies For Communicating Complex Ideas” list (5 minutes)</li> <li>○ <b>Intended Learning Outcomes:</b> <ul style="list-style-type: none"> <li>▪ <i>Develop communication strategies that support inquiry</i></li> <li>▪ <i>Develop a broader understanding of how people learn</i></li> <li>▪ <i>Learn about different roles played by visitors and visitors</i></li> </ul> </li> </ul> </li> </ul>
11:40 am	<i>MA (15 min)</i>	<ul style="list-style-type: none"> <li>• <b><u>Activity: Expert Blind Spot</u></b> <ul style="list-style-type: none"> <li>○ Explaining Expert Blind Spots</li> <li>○ Complete <u>Expert Blind Spot</u> handout</li> <li>○ Share examples of an expert blind spots</li> <li>○ <b>Intended Learning Outcomes:</b> <ul style="list-style-type: none"> <li>▪ <i>Develop communication strategies that support inquiry</i></li> <li>▪ <i>Develop a broader understanding of how people learn</i></li> <li>▪ <i>Technical language is hard for people outside the field to understand</i></li> </ul> </li> </ul> </li> </ul>
11:55 pm	<i>(30 min)</i>	<ul style="list-style-type: none"> <li>• <b>Break, Lunch and watch TED Talk “Sugata Mitra: Build a School in the Cloud”</b></li> </ul>
12:25 pm	<i>MA (20 min)</i>	<ul style="list-style-type: none"> <li>• <b><u>TED Talk Discussion</u></b> <ul style="list-style-type: none"> <li>○ Why did Sugata Mitra let the children play with the computer without instruction?</li> <li>○ What can we teach ourselves?</li> <li>○ Is there anything that we cannot teach ourselves?</li> <li>○ What does this experiment say about the social nature of learning?</li> <li>○ Is there a difference in the value we place on things we learn informally and the things we learn at school?</li> </ul> </li> </ul>

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12:45 pm	DL (15 min)	<ul style="list-style-type: none"> <li>• <b><u>Wrap-up</u></b> <ul style="list-style-type: none"> <li>○ <i>If you haven't already...</i> <ul style="list-style-type: none"> <li>▪ <i>Sign up for a One-On-One meeting at your workplace</i></li> <li>▪ <i>Review Public Program dates, sign up for four dates</i></li> </ul> </li> <li>○ What's ahead for SPARK Fellows                             <ul style="list-style-type: none"> <li>▪ <i>SPARK Workshop 3: Facilitating Your Activity, Saturday, January 31, 9am-1pm, Classroom 208</i></li> <li>▪ <i>Do you mind if we share the notes from each of our one-on-one interviews with the group?</i></li> </ul> </li> <li>○ What we need from you (before Workshop 3):                             <ul style="list-style-type: none"> <li>▪ <i>4-5 Sentences highlighting your research/work and what you plan to present as a SPARK fellow</i></li> <li>▪ <i>Title for your SPARK activity</i></li> <li>▪ <i>Any questions?</i></li> </ul> </li> <li>○ Please complete Workshop Evaluation 2</li> </ul> </li> </ul> <p>Thank you</p>
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### Workshop 3

Time		Activity
9:00 am	(15 min)	<b>Arrival</b> <ul style="list-style-type: none"> <li>○ Greetings</li> <li>○ Sign in on attendance sheet</li> <li>○ Take group photo</li> </ul>
9:15 am	MA (5 min)	<b>Welcome, Today's Agenda and Goals</b> <ul style="list-style-type: none"> <li>○ Specific strategies for facilitating a conversation (generic strategies)</li> <li>○ Time to practice talking about your work (specific strategies)</li> <li>○ Final wrap up and logistics before prototyping, etc.</li> </ul>
9:20 am	DL (10 min)	<ul style="list-style-type: none"> <li>• <b><u>Activity: Invitations to Participate</u></b> <ul style="list-style-type: none"> <li>○ <b><u>Invitations to Participate</u> <i>handout</i></b> <ul style="list-style-type: none"> <li>▪ <i>Pass out <u>Invitations to Participate</u> handout</i></li> <li>▪ <i>Discuss <u>Invitations to Participate</u> handout with fellows</i></li> <li>▪ <i>Fellows fill out two examples for each invitation</i></li> <li>▪ <i>Share ideas with a partner for 3-5 minutes</i></li> </ul> </li> <li>○ <b>Intended Learning Outcomes:</b> <ul style="list-style-type: none"> <li>▪ <i>Develop communication strategies that support inquiry</i></li> <li>▪ <i>Understanding the importance of developing personal connections with audiences based on shared experiences</i></li> </ul> </li> </ul> </li> </ul>

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9:30 am	MA (50 min)	<ul style="list-style-type: none"> <li>• <b><u>Activity: Questioning Strategies and Energy Balls &amp; Rattlebacks</u></b> <ul style="list-style-type: none"> <li>○ <u>Your Questions to Facilitate Inquiry</u> Handout (5 minutes)</li> <li>○ Questioning Strategies (10 minutes)</li> <li>○ Instructions for role-play (5 minutes)</li> <li>○ Set-up (5 minutes)</li> <li>○ Round 1 - Group A (5 minutes)</li> <li>○ Lead a reflect on Round 1 (5 minutes)</li> <li>○ Round 2 - Group B (5 minutes)</li> <li>○ Lead a reflect on Round 2 (5 minutes)</li> <li>○ The Power of Questions (5 minutes)</li> <li>○ Intended Learning Outcomes:           <ul style="list-style-type: none"> <li>▪ <i>Practice helping the “learner” explore an object using questions.</i></li> <li>▪ <i>Learning the power and effectiveness of good questions and question sequence.</i></li> <li>▪ <i>How we can use questions as a strategy to facilitate discovery and personalize learning experiences for visitors.</i></li> </ul> </li> </ul> </li> </ul>
10:20 am	DL (10 min)	<ul style="list-style-type: none"> <li>• <b><u>Discussion: Wrong Answers or Teaching Opportunities (5 minutes)</u></b> <ul style="list-style-type: none"> <li>○ Pass out <u>Wrong Answers or Teaching Opportunities</u> handout</li> <li>○ Discuss <u>Wrong Answers or Teaching Opportunities</u> handout with fellows</li> <li>○ Intended Learning Outcomes:           <ul style="list-style-type: none"> <li>▪ <i>Develop a strategy for using incorrect answers as a positive teaching moment</i></li> </ul> </li> </ul> </li> <li>• <b><u>Discussion: The Question “Why?” (5 minutes)</u></b> <ul style="list-style-type: none"> <li>○ Discuss why, “why?” is a hard question           <ul style="list-style-type: none"> <li>▪ Pass out <u>Why</u> handout to fellows</li> </ul> </li> <li>○ Intended Learning Outcomes:           <ul style="list-style-type: none"> <li>▪ <i>Often experts fall into a trap of over-using this question, without really understanding why visitors are unresponsive or frustrated when they do so.</i></li> <li>▪ <i>Discovering ways to take learners through a series of questions that will lead them to the conclusion you are hoping they will draw.</i></li> </ul> </li> </ul> </li> </ul>
10:30 am	(15 min)	<ul style="list-style-type: none"> <li>• <b>BREAK</b></li> </ul>



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10:45 am	MA (20 min)	<ul style="list-style-type: none"> <li>• <b>Activity: What's in a Word?</b> <ul style="list-style-type: none"> <li>○ Avoiding Jargon (3 minutes)</li> <li>○ Partners share jargon (7 minutes)</li> <li>○ Reflection (10 minutes)</li> <li>○ <b>Intended Learning Outcomes:</b> <ul style="list-style-type: none"> <li>▪ <i>Consider what types of language communicates science the best.</i></li> <li>▪ <i>Speaking to multiple audiences requires flexibility in word choice. The goal is always to maintain precision without sacrificing understandability. It's not about dumbing it down; it's about finding the right words that will give your audience access to your science.</i></li> </ul> </li> </ul> </li> </ul>
11:05 am	DL (35 min)	<ul style="list-style-type: none"> <li>• <b>Activity: Talk to your Neighbor</b> <ul style="list-style-type: none"> <li>○ Introduction, Divide into pairs, choose character cards (5 minutes)</li> <li>○ Reflection to identify messages, concepts and communication strategies (10 minutes)</li> <li>○ Role play Engineer and Visitor, then switch roles (5 min each, 10 minutes total)</li> <li>○ Discussion (10 minutes)</li> <li>○ <b>Intended Learning Outcomes:</b> <ul style="list-style-type: none"> <li>▪ Practice thinking about what different visitors might be interested in, what their prior knowledge could be</li> <li>▪ Use strategies/ideas from first three workshops to practice communicating your work</li> </ul> </li> </ul> </li> </ul>
11:40 am	(30 min)	<ul style="list-style-type: none"> <li>• <b>BREAK, Lunch and TED Talk "Carol Dweck: The power of believing that you can improve"</b></li> </ul>
12:10 pm	MA (20 min)	<ul style="list-style-type: none"> <li>• <b>TED Talk Discussion</b> <ul style="list-style-type: none"> <li>○ What do you think about Dweck's theory of fixed vs. growth mindsets?</li> <li>○ Do you think you have a fixed mindset or a growth mindset?</li> <li>○ Do you think a fixed or growth mindset is more prevalent in certain careers? How about the field of engineering?</li> <li>○ How can being aware of fixed vs. growth mindset affect your facilitation strategies?</li> </ul> </li> </ul>
12:30 pm	DL (20 minutes)	<ul style="list-style-type: none"> <li>• <b>Final Reflection</b></li> <li>- Acknowledge before &amp; after SPARK Fellow experience: <ul style="list-style-type: none"> <li>○ Value the visitor</li> <li>○ Two-way conversation</li> <li>○ Importance of practice and reflection</li> <li>○ Question: One take-away idea from these first three workshops?</li> <li>○ In 2 minutes or less, fellows share what they plan to do for their Public Program</li> </ul> </li> </ul>

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12:50 pm	<i>DL (10 minutes)</i>	<ul style="list-style-type: none"> <li>• <b>Wrap-up (10 minutes)</b> <ul style="list-style-type: none"> <li>○ Explain what's next...           <ul style="list-style-type: none"> <li>▪ Science After Dark: MythBusters, Friday February 13<sup>th</sup>, 6-9pm</li> <li>▪ Workshop 4: Prototyping Debrief and Peer evaluation, Saturday, February 21, 2015 from 10am-12:00pm, Cleveland Room</li> </ul> </li> <li>○ Review What will Happen on the Day of your program</li> <li>○ <i>If you haven't already...</i></li> <li>○ <i>Sign in on attendance sheet</i></li> <li>○ <i>Review the SPARK schedule, and make sure there have been no changes to the dates you selected</i></li> <li>○ <i>Please remember to send us any supplies you need including AV as soon as possible</i></li> <li>○ Questions?</li> </ul> </li> </ul> <p>Fill out evaluation</p>
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### Workshop 4

Time		Activity
9:15 am	<i>MA (45 min)</i>	<b>Arrival</b> <ul style="list-style-type: none"> <li>○ Drop off items at the dock</li> <li>○ Park car and meet at Demo labs           <ul style="list-style-type: none"> <li>▪ Room at the top left of escalator</li> </ul> </li> <li>○ Set up activity tables</li> </ul>
10:00 am	<i>DL (10 min)</i>	<b>Welcome, Today's Agenda and Goals</b> <ul style="list-style-type: none"> <li>○ Debrief and Recap</li> <li>○ Fellow presentations</li> <li>○ Upcoming engagements</li> <li>○ Spark Fellow Showcase</li> </ul>
10:10am	<i>DL (20 min)</i>	<ul style="list-style-type: none"> <li>• Debrief &amp; Recap           <ul style="list-style-type: none"> <li>○ <i>Matt, Aletha, Maruti, &amp; Brian</i></li> <li>○ <i>Each will talk about their activity, how the experience went for them, what went well, what they would change/improve</i></li> <li>○ <i>Q &amp; A from peers</i></li> </ul> </li> </ul>
10:30am	<i>MA (60 min)</i>	<ul style="list-style-type: none"> <li>• Fellows present activities to their peers</li> <li>• Peer feedback, Q &amp; A</li> <li>• 12 minute per fellow presentation</li> </ul>
11:30 am	<i>Susan Godfrey (30 min)</i>	<ul style="list-style-type: none"> <li>• Volunteer tour</li> </ul>
12:00 pm		Dismissal

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### Workshop Agendas

10:45 am	<i>DL (45 min)</i>	<ul style="list-style-type: none"> <li>• <b><u>Activity: Concept Mapping</u></b> <ul style="list-style-type: none"> <li>○ Pass out <b><u>Concept Map Handouts</u></b>. Introduce and explain the point of a Concept Map to scientists.           <ul style="list-style-type: none"> <li>▪ <i>The goal of the Concept Map is not to outline a specific presentation, but rather to build a toolbox of strategies and approaches for you to use as you seek to communicate a particular concept or slice of your work to the general public</i></li> <li>▪ <i>This Concept Map can also be used for activity development as it will help focus and define your activity's scope</i></li> </ul> </li> <li>○ Individuals work on 1-2 Concept Maps (20 minutes)</li> <li>○ Group discussion (10 minutes)</li> <li>○ Individuals work (10 minutes)</li> <li>○ Group-brainstorm to help people who are stuck with a particular concept or bubble (5 minutes)</li> <li>○ <b>Intended Learning Outcomes:</b> <ul style="list-style-type: none"> <li>▪ <i>Don't try to communicate everything. Pick a specific concept, topic or area of your work to focus on.</i></li> <li>▪ <i>Think about communicating your science from your audiences' point of view. What are your Big Idea, and 3 key messages?</i></li> </ul> </li> </ul> </li> </ul>
11:30 am	<i>(15 min)</i>	<ul style="list-style-type: none"> <li>• <b><u>Activity: Personal Learning (15 minutes play, worksheet, share)</u></b> <ul style="list-style-type: none"> <li>○ Play with <i>Pintacudas</i> then use worksheets (5 minutes)</li> <li>○ Share (5 minutes): Go around room and read answers directly from sheet.</li> <li>○ Reflection (5 minutes reflect on worksheet):</li> <li>○ <b>Intended Learning Outcomes:</b> <ul style="list-style-type: none"> <li>▪ <i>People enter have their own personal motivations, curiosities, understandings, interests, and conceptions that they bring with them to an experience. We can create engaging and meaningful experiences by acknowledging and accommodating what individuals bring with them. As a facilitator, we can use this information to help us decide where to take an activity next.</i></li> </ul> </li> </ul> </li> </ul>
11:45 am	<i>(30 min)</i>	<ul style="list-style-type: none"> <li>• <b>BREAK, Lunch and watch TED Talk "Tyler DeWitt: Hey Science Teachers - Make it Fun"</b></li> </ul>

## Spring 2015: Cohort 1

### Workshop Agendas

12:15 pm	<i>MA (30 min)</i>	<ul style="list-style-type: none"> <li>• <b>TED Talk Discussion</b> <ul style="list-style-type: none"> <li>○ Share an example of a scientific concept you remembered only because you or a teacher made it fun.</li> <li>○ What are some of the reasons DeWitt's mentions that his students were disinterested in learning about viruses?</li> <li>○ Must we "dumb down science" in order to make it fun?</li> <li>○ Do you think it is possible for you to be scientifically accurate about your work and still tell a good story?</li> </ul> </li> </ul>
12:45 pm	<i>DL (15 min)</i>	<ul style="list-style-type: none"> <li>• <b><u>Wrap-up (15 minutes)</u></b> <ul style="list-style-type: none"> <li>○ <b>Explain what's next</b> <ul style="list-style-type: none"> <li>▪ <i>Please spend additional time thinking through your <u>Concept Maps</u> and utilizing the activities development resources.</i></li> <li>▪ <i>One-on-One Meetings: once between January 20-February 3</i></li> <li>▪ <i>At our next workshop we will ask you to give a brief update to the group on your activity development.</i></li> <li>▪ <i>Also, for next time please look at the dates and come prepared, as best you can, to sign up for your four Public Programs for 2015.</i></li> <li>▪ <i>Next workshop is "How People Learn" - Saturday, January 24 from 9am-1pm, Classroom 208</i></li> </ul> </li> <li>○ <b>Before you leave today...</b> <ul style="list-style-type: none"> <li>▪ Sign up for One-on-One Meeting date (be sure to write where we will be meeting)</li> <li>▪ Complete Workshop 1 Evaluation</li> </ul> </li> <li>○ <b>Thank you</b></li> </ul> </li> </ul>