

Day1	Material	Timing
<p><i>Welcome:</i> Introduce myself and my background.</p> <p>Go over the <i>agenda</i> for the day</p> <p>Point to the question chart paper and explain:</p> <p>"Burning questions can be written on sticky's and will be addressed at the end of the day"</p>	<p>Slide #1 Slide #2</p> <p>Chart paper, sticky notes</p>	<p>10 min.</p>
<p><b>Icebreaker Activity:</b></p> <p>Participants work in groups with a large piece of paper divided into three sections with a circle in the middle, each recording three different numbers about him/herself in an outside section, next they record one number from each section in the middle so that the numbers have something in common. Then in a large group, participants share their middle numbers and commonalities.</p> <p>Have participants fill out the <i>Attitude towards Math Survey</i> – Set aside to be discussed at the end of the presentation</p>	<p>Slide #3 &amp; Slide #4</p> <p>Manuals with the math survey, pencils</p> <p>Large paper for each group of three or four people</p>	<p>20 min.</p> <p>10 min.</p>
<p>Discuss <b>RESEARCH &amp; BACKGROUND</b> of our program.</p> <p>KEY POINTS</p> <ul style="list-style-type: none"> <li>• Self-regulation- ties to games</li> <li>• Teaching For Conceptual Change (review constructivism page 14-15)</li> <li>• Vygotsky – review zone of proximal development, psychological tools, scaffolding, sociocultural theory (page 14-15)</li> </ul>	<p>Slide #5 – answer to “Why games”</p> <p>Slide #6 and Slide #7</p>	<p>5 min.</p>
<p>Teaching For Conceptual Change – Divide participants into groups of two and have them choose two of four questions to answer based on page 14-15 in the binder. Debrief in groups of four.</p>	<p>Questions: 1) Why might information might be outside of a child's zone of proximal development? 2) What are the benefits of teaching using a constructivist approach? 3) Why is it important for students to put their learning into</p>	<p>15 min.</p>

	words? 4) Why should we use manipulatives when learning math?	
<p>Discuss <b>RESEARCH &amp; BACKGROUND</b> of our program</p> <p><b>KEY POINTS</b></p> <ul style="list-style-type: none"> <li>• <i>Teacher prompts</i> based on Reading Recovery- used to focus on the process and help children construct meaning</li> <li>• CGI Problem Solving- problems are contextual and levelled</li> <li>• <i>Math Strands</i>-What are they? Focus on Number Sense and Operations because they compose 50% of all math learned between K and grade 8.</li> </ul>	Slide # 8 and Slide #9	5 min
<p><b>Activity:</b> Form groups of three and represent the numbers in different ways. Represent each number in as many different ways as you can. Use pictures, words, numbers and manipulative tools.</p> <p><i>Explain:</i> What does it mean to look at math developmentally? (Do a table walk and have participants explain their creations.) Using the variety of numbers that were in the activity elicit from participants which numbers and representations would be at a lower level and which would be at higher levels.</p>	<p>Slide #10</p> <p>Assortment of manipulatives, blank paper, numberlines, graph paper, hundreds charts etc. Numbers: 1&amp;1/2, 3.5, 1452, 9</p>	20 min.
<b>BREAK</b>	Coffee, Tea, Snacks	15 min.
<p><b>Games Key Points</b></p> <ul style="list-style-type: none"> <li>• <i>Motivation</i> – research by Durlak et al.( Page 35) indicated that self-regulation and emotional well being are important in children becoming successful motivated learners.</li> </ul>	Slide #11,12,13	15 min.

<ul style="list-style-type: none"> <li>• <i>Practice</i> – research by Howard and McInnes indicated that children stick with a task that is perceived as play longer, are more creative in their responses and will attempt more solutions.( Page 36)</li> <li>• <i>Levels</i> for developmental appropriateness</li> <li>• <i>Order of teaching</i> Leading Specialists in the Field of Math such as Marion Small and John Van De Walle promote always introducing new concepts with Manipulatives than moving to Pictures and lastly to Abstract (just numbers)</li> </ul> <p><i>Debrief video:</i> describe how this study made going up stairs fun and how many more people were motivated to exercise by using the stairs.</p>	<p>Slide #14 Video – People playing on stairs (Piano Stairs)</p>	
<p><b>Games:</b></p> <p>In partners choose a game from each level to play. Encourage participants to use manipulatives as well while playing the games.</p>	<p>Slide #15</p> <p>Manipulatives, visuals etc.</p>	<p>60 min.</p>
<p><b>Debrief:</b> Attitude Survey- does anyone have any comments questions or thoughts about how their attitudes might change? Answer any questions on sticky notes.</p> <p><i>Homework:</i> read pages 14-15, 15-18, 35-36 in your binder. Be prepared to discuss what you liked in the article and what you wondered at the next class.</p>	<p>Slide #16</p> <p>Attitude survey Chart with sticky note questions</p> <p>Manuals</p>	<p>10 min.</p>