

Thinking Routines Matrix

from the book *Making Thinking Visible* by Ritchhart, Morrison & Church (Spring 2011)

	Routine	Key Thinking Moves	Notes
<i>Routines for INTRODUCING & EXPLORING IDEAS</i>			
1	See-Think-Wonder	Description, Interpretation & Wondering	<i>Good with ambiguous or complex visual stimuli</i> 
2	Zoom In	Description, Inference, & Interpretation	<i>Variation of STW involving using only portions of an image</i> 
3	Think-Puzzle-Explore	Activating prior knowledge, wondering, planning	<i>Good at the beginning of a unit to direct personal or group inquiry and uncover current understandings as well as misconceptions</i> 
4	Chalk Talk	Uncovers prior knowledge and ideas, questioning	<i>Open-ended discussion on paper. Ensures all voices are heard, gives thinking time.</i> 
5	321 Bridge	Activates prior knowledge, questioning, distilling, & connection making through metaphors	<i>Works well when students have prior knowledge but instruction will move it in a new direction. Can be done over extended time like the course of a unit.</i> 
6	Compass Points	Decision making and planning, uncovers personal reactions	<i>Solicits the group's ideas and reactions to a proposal, plan or possible decision.</i> 
7	Explanation Game	Observing details and building explanations	<i>Variations of STW that focuses on identifying parts and explaining them in order to build up an understanding of the whole from its parts and their purposes</i> 

Routines for SYNTHESIZING & ORGANIZING IDEAS

1	Headlines	Summarizing, Capturing the heart	Quick summaries of the big ideas or what stands out 
2	CSI: Color, Symbol, Image	Capturing the heart through metaphors	Non-verbal routine that forces visual connections  
3	Generate-Sort-Connect-Elaborate: Concept Maps	Uncovering and organizing prior knowledge to identify connections	Highlights the thinking steps of making an effective concept map that both organizes and reveals one's thinking  
4	Connect-Extend-Challenge	Connection making, identify new ideas, raising questions	Key synthesis moves for dealing with new information in whatever form it might be presented: books, lecture, movie, etc.   
5	The 4 C's	Connection making, identifying key concept, raising questions, and considering implications	A text-based routine that helps identifies key points of complex text for discussion. Demands a rich text or book.   
6	Micro Lab	A protocol for focused discussion	Can be combined with other routines and used to prompt reflection and discussion  
7	I used to think	Reflection and metacognition	Used to help learners reflect on how their thinking has shifted and changed over time.  

Routines for DIGGING DEEPER INTO IDEAS

1	What makes you say that?	Reasoning with evidence	<i>A question that teachers can weave into discussion to push students to give evidence for their assertions.</i>	
2	Circle Viewpoints	Perspective taking	<i>Identification of perspectives around an issue or problem.</i>	
3	Step Inside	Perspective taking	<i>Stepping into a position and talking or writing from that perspective to gain a deeper understanding of it.</i>	
4	Red Light, Yellow Light	Monitoring, identification of bias, raising questions	<i>Used to identify possible errors in reasoning, over reaching by authors, or areas that need to be questioned.</i>	
5	Claim Support Question	Identifying generalizations and theories, reasoning with evidence, counter arguments	<i>Can be used with text or as a basic structure for mathematical and scientific thinking.</i>	
6	Tug of War	Perspective taking, reasoning, identifying complexities	<i>Identifying and building both sides of an argument or tension/dilemma</i>	
7	Word-Phrase-Sentence	Summarizing and distilling	<i>Text-based protocol aimed at eliciting what a reader found important or worthwhile. Used with discussion to look at themes and implications.</i>	

Habits of Mind

16 of the attributes that human beings display when they behave intelligently by Arthur L. Costa and Bena Kallick

 <p>1. Persisting <i>Stick to it!</i> Persevering in task through to completion; remaining focused. Looking for ways to reach your goal when stuck. Not giving up.</p>	 <p>2. Managing Impulsivity <i>Take your time!</i> Thinking before acting; remaining calm, thoughtful and deliberative.</p>	 <p>3. Listening with understanding and empathy <i>Understand others!</i> Devoting mental energy to another person's thoughts and ideas; Make an effort to perceive another's point of view and emotions.</p>	 <p>4. Thinking flexibly <i>Look at it another way!</i> Being able to change perspectives, generate alternatives, consider options.</p>
 <p>5. Thinking about your thinking (Metacognition) <i>Know your knowing!</i> Being aware of your own thoughts, strategies, feelings and actions and their effects on others.</p>	 <p>6. Striving for accuracy <i>Check it again!</i> Always doing your best. Setting high standards. Checking and finding ways to improve constantly.</p>	 <p>7. Questioning and problem posing <i>How do you know?</i> Having a questioning attitude; knowing what data are needed & developing questioning strategies to produce those data. Finding problems to solve.</p>	 <p>8. Applying past knowledge to new situations <i>Use what you learn!</i> Accessing prior knowledge; transferring knowledge beyond the situation in which it was learned.</p>
 <p>9. Thinking & communicating with clarity and precision <i>Be clear!</i> Strive for accurate communication in both written and oral form; avoiding over-generalizations, distortions, deletions and exaggerations.</p>	 <p>10. Gather data through all senses <i>Use your natural pathways!</i> Pay attention to the world around you Gather data through all the senses. taste, touch, smell, hearing and sight.</p>	 <p>11. Creating, imagining, and innovating <i>Try a different way!</i> Generating new and novel ideas, fluency, originality</p>	 <p>12. Responding with wonderment and awe <i>Have fun figuring it out!</i> Finding the world awesome, mysterious and being intrigued with phenomena and beauty.</p>
 <p>13. Taking responsible risks <i>Venture out!</i> Being adventuresome; living on the edge of one's competence. Try new things constantly.</p>	 <p>14. Finding humor <i>Laugh a little!</i> Finding the whimsical, incongruous and unexpected. Being able to laugh at one's self.</p>	 <p>15. Thinking interdependently <i>Work together!</i> Being able to work in and learn from others in reciprocal situations. Team work.</p>	 <p>16. Remaining open to continuous learning <i>Learn from experiences!</i> Having humility and pride when admitting we don't know; resisting complacency.</p>