# Thinking Routines Matrix   *Making Thinking Visible* by Ritchhart, Morrison & Church (Spring 2011)

| Routine | Key Thinking Moves | Notes |
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| *Routines for* INTRODUCING & EXPLORING IDEAS | | |
| 1. See-Think-Wonder | Description, Interpretation & Wondering | Good with ambiguous or complex visual stimuli |
| 2. Zoom In | Description, Inference, & Interpretation | Variation of STW involving using only portions of an 3. image |
| 3. Think-Puzzle-Explore | Activating prior knowledge, wondering, planning | Good at the beginning of a unit to direct personal or group inquiry and uncover current understandings as well as misconceptions |
| 4. Chalk Talk | Uncovers prior knowledge and ideas, questioning | Open-ended discussion on paper. Ensures all voices are heard, gives thinking time. |
| 5. 321 Bridge | Activates prior knowledge, questioning, distilling, & connection making through metaphors | 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. |
| 6. Compass Points | Decision making and planning, uncovers personal reactions | Solicits the group's ideas and reactions to a proposal, plan or possible decision. |
| 7. Explanation Game | Observing details and building explanations | 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 |
| *Routines for* SYNTHESIZING & ORGANIZING IDEAS | | |
| 8. Headlines | Summarizing, Capturing the heart | Quick summaries of the big ideas or what stands out |
| 9. CSI: Color, Symbol, Image | Capturing the heart through metaphors | Non-verbal routine that forces visual connections |
| 10. 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 |
| 11. 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. |
| 12. 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. |
| 13. Micro Lab | A protocol for focused discussion | Can be combined with other routines and used to prompt reflection and discussion |
| 14. 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 | | |
| 15. What makes you say that? | Reasoning with evidence | A question that teachers can weave into discussion to push students to give evidence for their assertions. |
| 16. Circle Viewpoints | Perspective taking | Identification of perspectives around an issue or problem. |
| 17. Step Inside | Perspective taking | Stepping into a position and talking or writing from that perspective to gain a deeper understanding of it. |
| 18. Red Light, Yellow Light | Monitoring, identification of bias, raising questions | Used to identify possible errors in reasoning, over reaching by authors, or areas that need to be questioned. |
| 19. Claim Support Question | Identifying generalizations and theories, reasoning with evidence, counter arguments | Can be used with text or as a basic structure for mathematical and scientific thinking. |
| 20. Tug of War | Perspective taking, reasoning, identifying complexities | Identifying and building both sides of an argument or tension/dilemma |
| 21. Word-Phrase-Sentence | Summarizing and distilling | Text-based protocol aimed at eliciting what a reader found important or worthwhile. Used with discussion to look at themes and implications. |

For more routines, check out
http://www.visiblethinkingpz.org/VisibleThinking_html_files/03_ThinkingRoutines/03b_Introduction.html