Metacognition & Learning Grid

	Metacognitive	Meta-emotional	Environmental
Planning	- What kind of a task is this? - What is my goal? How will I know I have reached it? - What do I already know about the topic? - What additional information, if any, will I need? - What strategies should I use? (actively listening, taking notes, outlining, visually representing the material, occasionally self-quizzing, reviewing, or writing a summary) - What strengths can I bring to the task? - What are my weaknesses and how can I make up for them?	- How interested and motivated am I to do the task, and how can I increase my interest and motivation if they are low? - What's the value or relevance of what I'll be learning? - How confident am I in my ability to learn this material? If not very, how can I increase my belief in my ability to learn it, without becoming over- confident? What similar tasks can I recall doing well in the past?	- What is the best environment for the task that I can create? - Am I in a good physical place and position to do this task? - Is the temperature right for me? How about the back- ground sounds? - Have I had enough sleep? Have I had the right amount of coffee today? - Have I put potential distractions far, far away? - How much time and what resources will I need? Are these resources handy?
Monitoring	- Am I sure I know what I am doing? - Does my approach to the task make sense? - Am I making good progress toward my goal? - How focused am I? Am I getting tired? If so, how can I keep myself focused and alert? - How well are my strategies working? What changes in strategies should I make, if any? - What material is the most important? What material am I having trouble understanding? - How does what I am learning relate to what I already know?	- If my interest and motivation are sagging, how is what I'm learning relevant to my experience or my future? - What material is challenging what I've thought about the subject? Am I resisting it? - Am I starting to get discouraged or give up? Am I thinking I'm just no good at this subject? How can I change this negative thinking? What similar tasks can I recall doing well in the past?	- Should I try another environment to see if it works better? - How about another physical position? - How are the temperature and background sounds working out? - Am I staying away from distractions? If not, I have to get further away from them. - Do I need a short break to refresh my mind and body?
Evaluating	- How well did I achieve my goal or master what I set out to learn? - What can I recall and what do I need to review? - What were the most important points I learned? - Can I see and organize the interrelationships among them? - What am I still having trouble understanding? What questions do I have to ask my instructor? - How does what I learned relate to other things I've been learning or have experienced? - How has my thinking on the topic changed? - Which approaches and strategies worked well? Which didn't? - What do I need to do differently next time I take on a similar task?	How am I reacting emotionally to my evaluation of my learning? Being pleased reinforces a learner's motivation and other positive emotions she generated about the material and her ability to learn it. Being disappointed may lead either to improving her learning strategies or her defensively withdrawing her energy from task. This reaction in turn undermines the positive emotions needed to begin the next learning or performance task.	- How well did I avoid distractions and stay on task? - If not that well, how can I avoid distractions more effectively in the future? - Do I need to experiment more with different physical factors to find the best working environment and break schedule for myself?

As you work, check in with yourself to see how you're learning!   Questions That Self-Regulated Learners Ask Themselves -- (adapted from Schraw, 1998 and Tanner, 2012)

Effective Learning Approaches

Elaboration: How does this concept/problem/question relate to others?
Distinctiveness: How is this concept/problem/question different from others?
Relevance: How can I relate this to my prior knowledge, motivation, &/or personal experience?
Appropriate to Retrieval & Application: How am I expected to use or apply this?

Good study strategies make you process information DEEPLY

Generate good questions – make them meaningful! (see above)

Draw a concept map showing nodes and links

Practice retrieving and using the information in the way the teacher expects

      Practice **RECALL** without referring to notes (written or out loud is best!)

      Practice **USING** the information in problem-solving or synthesis writing

Remember, recognizing a solution is not the same as solving a problem.

      Recognition → Understanding → Application & Mastery → Synthesis & Evaluation

Active Study & Practice Techniques

Re-read to **find or write questions**

Practice **answering** questions or **solving** problems

Then PRACTICE more

Think about **specific** concepts/ideas that **confuse you, write Qs**

Focus your attention/time on the **hardest** stuff

Make **connections** between material

Plan for likely **test questions** Recite (**talk** through) what you know

Listen to others' questions, and/or explanations; **rephrase** them!

Practice **time limits w/ unfamiliar problems**

      → *Don't study by <u>reading</u> unless you're studying for a <u>reading test</u>*