Metacognition Introduction

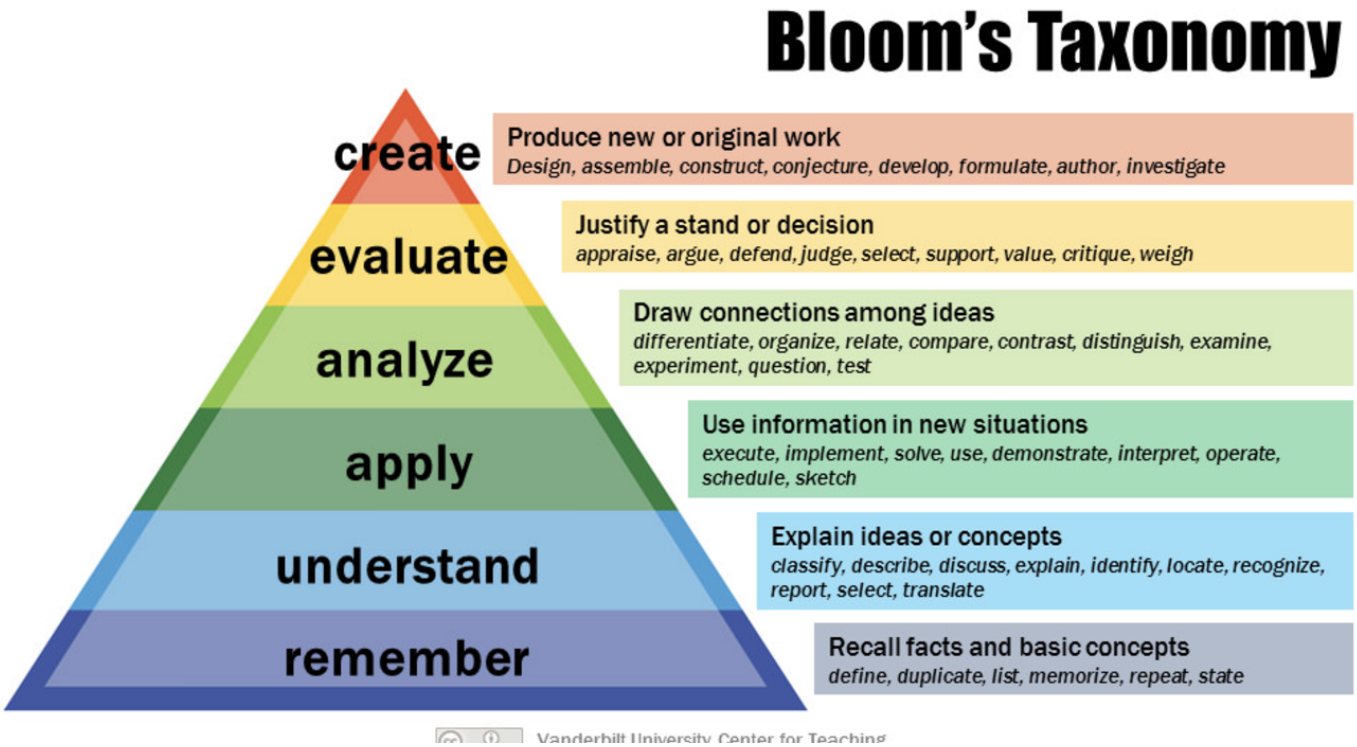
While working in a group make sure you:

- Expect to make mistakes but be sure to reflect/learn from them!
- Are civil and are aware of your impact on others.
- Assume and engage with the strongest argument while assuming best intent.

1. For which task, described below, would you work harder? Explain why.

   (a) Make an A on the exam.

   (b) Teach the material to the class.



2. Where in Bloom's did you have to operate to make A's or B's in high school?

3. Where in Bloom's do you need to be to prepare yourself for your career?

Metacognitive Strategies (Some ideas to help you move higher on Bloom's Taxonomy:)

- Get the most out of homework!
    1. Start the problems early, the day they are assigned.
    2. Do not flip back to see an example problem or what others have already done on the problem. Work on them yourself!!!
    3. Do not give up too soon (less than 15 minutes).
    4. Do not spend too much time (more than 30 minutes).
    5. Connect with others to compare your work. If your answers do not match, investigate and find out why!
- Test understanding by giving "mini-lectures" on concepts. (Note that this procedure is built into most of the homework in this class!!)
- Memorize everything that you are asked to memorize.
- Always ask why, how, and what if questions.
- Aim for 100% mastery, not 90%.
- Use "the study cycle"
    1. Preview before class: skim the chapter, note headings and boldface words.
    2. Attend class: answer and ask questions and take meaningful notes.
    3. Review after class: as soon as possible, read notes and fill in gaps.
    4. Study: Ask questions such as 'why', 'how', and 'what if'. Intense study sessions are 3-5 short study sessions per day.
    5. Assess your learning: periodically perform reality checks. For example, "am I using study methods that are effective? Do I understand the material enough to teach it to others?"