Studying Different Subjects

Studying Math:

- *Math is cumulative*
    - Builds upon each concept, so go back to the beginning when you start studying
    - Always try: write down what you know, draw a diagram/graph/table, and check your answer
- *Learn the vocabulary*
    - Many words have different or specific meanings in math
    - Create flashcards for key concepts or formulas
- *Notes and Homework*
    - Rework problems and examples given in class without notes or the answer.
        - This is a strategy to use problems as mock exam questions.
        - You can also create problems, or work with a study group to find/create additional problems for each other.
- *Practice*
    - Studying math should *not* just be reading over notes.
    - You should rework problems (especially ones you can check with the answer), find problem sets online, and do any additional problems in your textbook.

Things to Consider

- Why might it be more beneficial to work out problems when studying for math than looking over homework and notes?
    - Hint: What levels of Bloom's Taxonomy does flashcards or reading use? What level does solving problems? Creating practice problems?
- Should you be reading your textbook for math? Why might the textbook be valuable, other than for practice problems?

Studying Science:

- *Cumulative and hierarchical*
    - Learning depends on many previous concepts and understanding relationships
- *Know your key concepts*
    - Lecture should not be the *first* time you learn about it – read or preview the chapter to know the main concepts and vocabulary before attending lecture.
- *Practice*
    - Studying science should *not* just be reading over notes.
    - You will need to work out problems and read your textbook to be successful – plan to study regularly using multiple strategies.

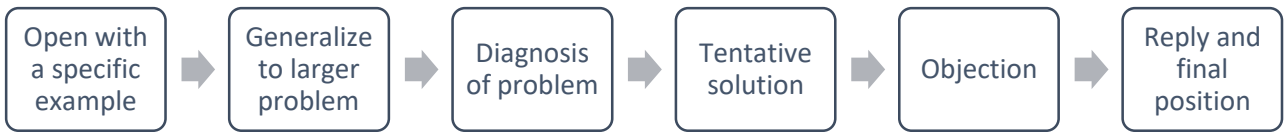
Studying Different Subjects

Things to Consider

- How is learning science like learning math? Like learning a foreign language?
- If a science course has a lab, how does the lecture content affect the lab content? How do you study for both?

Studying – Reading a Textbook:

- *Have a plan*
    - Set a goal of how much you plan to accomplish before you begin
    - Go back to the beginning when you start studying
    - Always try: write down what you know, draw a diagram/graph/table, and check your answer
- *Active reading strategies*
    - Try SQ3R or Cornell notes
    - Annotate – write notes, symbols, key terms, and questions in the margins; highlight; and circle or underline key words or phrases
    - Engage with the material with as many senses as possible, as often as possible – read, recite, write, etc.
- *Take notes*
    - Definitions, key points, section or chapter summary
    - Create a concept map of section's concepts
        - Example (below) of a linear concept map when reading textbook for an argumentation and debate class:



Things to Consider

- Taking notes or practicing active reading strategies while completing a reading assignment may take more time. Why might active reading strategies be worth the additional time?
- Should you consider your learning preference when completing a reading assignment? Why might different active reading strategies work differently for you?