



**From the Math and Science Departments:
Summer Suggestions to Build Up Senior Math and Science Skills**

Students interested in refining math skills over the summer have several options:

- TriC Publications have prepared inexpensive summer study workbooks for various levels of math. They are designed for use by the student at home three or four times a week for ten weeks. Workbooks are available to order at http://www.summerskills.com/summerskillsbooks/math_books
- A TI-84 Plus CE or TI-84 Plus C Silver Edition calculator is required for both math and science courses. If you see a good deal on one early in the summer, you may want to purchase it right away. Although you will learn how to use it in class, you may want to familiarize yourself with it over the summer. For information on this calculator, go to <http://education.ti.com/en/us/products/calculators/graphing-calculators>. Calculator tutorials can be accessed at www.atomiclearning.com/k12/en/ti_84c.
- A brief review of fundamental Algebra concepts is included in the document located at <http://www.unioncatholic.org/downloads/pdf/2014-2015/algebraprep.pdf>.
- Below are websites that you may find helpful when researching mathematical topics throughout the summer or during the school year:
<https://www.khanacademy.org/> (under the LEARN tab, click mathematics)
<http://www.purplemath.com/>
http://www.sadlier-oxford.com/math/student_2006.cfm?tp=lessonplanners&grade=8
<http://www.algebrahelp.com/>
<http://www.math.com/homeworkhelp/Algebra.html>
<http://www.coolmath.com/algebra/index.html>

Overall preparation for Senior Science. Keep in mind the first principles you have used in earlier science courses and think about how they might be important your senior science course. As in previous summers, you will want to keep in mind some big questions:

- ✓ Are my senses reliable? What will it take to make me accept information I gain about things too small or too far away for me to verify with my senses?
 - ✓ What role does math play in science? Is there anything useful about what science tells us that is not mathematical?
 - ✓ How would you describe something like a tree or particular animal? What is important in your description so that a person from another planet could understand the thing you are describing well?
 - ✓ How is the structure of something, such as a bird's wing or a human hand, related to its function?
 - ✓ What predictions can you make based on what you know from science?
 - ✓ When do you think advice from an expert scientist is helpful and when do you think it may not be?
- **Environmental Science.** Try these websites if you want a preview of some topics you may study:
<https://www.youtube.com/watch?v=LE9KTG9PFho> (Bozeman series)
<https://www.learner.org/courses/envsci/>
<http://ocean.si.edu/ocean-life-ecosystems/plankton>
<http://www.theevergladesstory.org/>
 - **Anatomy and Physiology.** Try these websites if you want a preview of some topics you may study in this course:
<http://science.nationalgeographic.com/science/health-and-human-body/human-body/>
<http://www.g2conline.org/2022>
<http://www.getbodysmart.com/ap/skeletalsystem/skeleton/axial/vertebrae/menu/menu.html>