FRASSATI
CATHOLIC HIGH SCHOOL

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:

- Course related skill reviews have been uploaded to a Frassati Google Classroom webpage and may be accessed in the same way you obtain course material during the school year. To access the documents, join the class titled *Mathematics Summer Review* using the class code, **41n9pya**.

- Online mathematics review is readily available. The sites below are organized by course and topic.

  https://www.khanacademy.org/math
  Select your most recent math course to review important concepts and complete practice problems.

  http://www.coolmath.com/algebra/index.html
  Review key concepts related to a chosen topic and then complete self-checking online problems.

  https://www.kutasoftware.com/
  Select your most recent math course under the *Free Worksheet* tab to choose among problem practice sets organized by concept.

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?

- **Advanced Placement Physics 1**. Although there are no required summer assignments for this course, you might find the following helpful if you want to do some summer preparation.
  -Videos covering the topics covered in the course:
  http://www.flippingphysics.com/ap-physics-1-review.html
  http://www.aplusphysics.com/courses/ap-1/AP1_Physics.html#ap1
  -Problem sets with solutions can be found at http://www.aplusphysics.com/ap1/ap1-supp.html
  -Setting up a free account through edX can allow you to enroll in a free online course or view archived material. See:
  http://www.edx.org/course/preparing-ap-physics-1-exam-bux-py1x
  http://www.edx.org/course/ap-physics-1-ricex-advphy1x

- **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://bozemanscience.com/anatomy-and-physiology
  http://www.getbodysmart.com
  http://www.innerbody.com

- **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/