Summer Math Work for The Class of 2021

Dear Students,

Summer is here, but the good news is that math continues even when school is closed. Yay! The goal of math work over the summer is primarily to maintain or improve your math skills and mastery of this past school year's material. It also allows you to explore new topics and keep your math mind moving! Follow the directions below and have a mathemagical summer!

Anne

1. **ALEKS**
   You have just been introduced to ALEKS, a web-based learning and assessment tool. ALEKS uses adaptive questioning to determine what a student knows and charts a personalized path for their learning. We intend to use ALEKS as a tool to differentiate learning. For students working at grade level, ALEKS provides practice to supplement their in-class work and to help them deepen their conceptual understanding. For students who wish to and are ready to work above grade level, ALEKS provides content and practice for higher level topics.

   For the summer, we will use ALEKS to help students solidify mastery of 6th grade content. You start with an initial Knowledge Check that determines where is the best place for you to start in the curriculum. Do not get help with this part, or you will not be placed where you should be. Once you finish the Knowledge Check, you will be placed on your "path" and given problems that you are ready to learn/review. On these problems, there is an explanations button in the lower left corner that you can press to see a worked example. Use that if you need some help.

   The goal is to finish 85% or more of the 6th grade ALEKS over the summer. This will ensure that you have practiced and mastered the bulk of the 6th grade material, which we will build on in 7th grade. If that goal is out of reach, email Anne as soon as possible (NOT the night before we return to school ☺) at afederwisch@sfschool.org for a personalized goal.

   You won't have your iPads, but you can access the program from any browser at www.aleks.com . MAKE SURE YOU KNOW YOUR LOGIN AND PASSWORD.

2. Explore math in one or more of the following ways. **FOR ANY OF THESE ACTIVITIES, WRITE DOWN A SUMMARY OF WHAT YOU DID AND WHAT YOU LEARNED.** You will turn this in during the first week of school.

   - Complete at least three problems from each of the 10 Summer Review Worksheets. If you have trouble with a problem, look up topics on Khan Academy or ALEKS.

- Watch several Khan Academy math videos of your choosing and try the accompanying problems.

- Take a free, self-paced, online class called "How to Learn Math," provided by mathematical mindset guru Jo Boaler of Stanford University. The course teaches strategies and presents research to help you develop your growth mindset and engage in math in a meaningful way. And there are some fun problems as well! Go to https://lagunita.stanford.edu/courses/Education/EDUC115-S/Spring2014/about for more information.

- Check out topics on mathplanet.com. They have written and video explanations in pre-algebra, algebra, and more.

- Create your own math adventure.
  - Create a video to explain a math concept or a math problem, demonstrate math in nature, or some other mathematical concept.
  - Make a game that uses math.
  - Write a comic book with a mathematical theme.
  - Write a mathematical mystery in which the solution depends on a mathematical concept. Check out examples at http://teacher.scholastic.com/maven/timefor/index.htm http://teacher.scholastic.com/maven/cuckoo/index.htm