June 2016

Dear Soon-to-be 8th Grader!

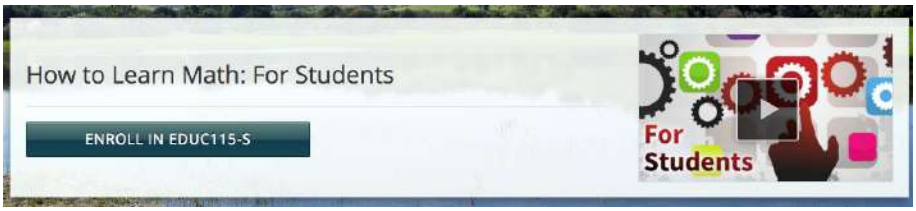
I am hoping you have an amazing summer! I'll be enjoying my time as well as thinking about what our 8th grade mathematics and thinking classroom will be like!

Summer is a terrific time to learn and explore differently than during the school year. I hope that you will find the time to establish or sustain a growth mindset for math and think about ways that patterns, your environment and even daily conversations relate to math. When I say "math" I really mean puzzling, thinking, creating, art, science and more!

Here's what we can do to ensure a great start to next year: This summer I am asking you to explore an **online mindset course** and earn a "**Statement of Accomplishment"** that you can submit to me when we meet in the fall. The online course is six short lessons that take 15 - 20 minutes each and include watching videos and video responses. You'll probably be surprised about things you'll see and learn about learning! (You may have seen a few of the videos already in Ms. Jordan's math class. If so, I suggest watching them again -- they are worth a second look!)

One way to manage your time might be to plan on doing one lesson a week. I've included HOW TO steps below. This is something you can do on your own, with a sibling, friend or adult. You will need a computer and internet connection to do this assignment. If you do not have this at home, you can go to the public library instead.

1. Go to https://lagunita.stanford.edu/courses/Education/EDUC115-S/Spring2014/about and use the green button to 'ENROLL IN EDUC115-S'.



2. Complete the registration form. **You only need to enter the fields that are noted by bold text and an asterisk (*)**. Work with your family to choose an appropriate username and email.
3. Check your email and activate your course registration.
4. To return to the course for each lesson
    a. Use https://lagunita.stanford.edu/login . You might want to bookmark this page!
    b. Click on "View Course" for EDUC115-S
    c. The first time you should read the course info to get an overview of each lesson and learn more about the "**Statement of Accomplishment**".

d. Click on “PROGRESS”

e. Begin with Lesson 1. Navigate through each lesson using right or left arrows at the bottom of the screen and after each video or video response.

f. Track your progress using the table below to complete all 6 lessons and earning at least an 80% to earn your **Statement of Accomplishment**.

g. When we get back to school in the fall, I will ask you to submit your **Statement of Accomplishment** through Google Classroom.

Lesson	Date	
Knocking Down the Myths About Math.		▯
Math and Mindset		▯
Mistakes and Speed		▯
Number Flexibility, Mathematical Reasoning, and Connections		▯
Number Patterns and Representations		▯
Math in Life, Nature and Work		▯

When we meet in August, I will ask you to write a letter to a struggling student explaining the growth mindset, telling the struggler not to label himself or herself, and giving the student advice on strategies to improve their math learning experience.

Note: If you are not able to access the internet this summer, please complete the Math Journal Assignment outlined on the next page.

I look forward to meeting all of you in the fall. Enjoy your summer and your mathematical learning!

Sincerely,

Mr. Bloch

Alternative Assignment

Do this assignment if you do not have an internet connection, or if you cannot complete the online course for some other reason.

Summer Math Journal Assignment

This assignment will be a math journal in which you write answers to math related questions. From the list below **you should choose 6 questions to respond to using words and pictures**. The six entries should take 15 - 20 minutes each. You'll probably be surprised about things you'll notice and wonder about math!

When we meet in August, I will collect your journal and I will be asking you to write a letter to a reluctant math student about how math is around us and giving advice on where to observe and find math outside of a classroom.

One way to manage your time might be to plan on doing one entry a week. This is something you can do on your own, with a sibling, friend or adult! Please include in your journal:

- A **cover**. This should include your name, a title for your journal and some math-related drawing
- A **table of contents**. This first page in your journal should list your journal entries, the date(s) of the entry writing, the question, and the page number.
- At least **six journal entries**. At the start of entry, you should have the journal question written out. Below that, your should have a detailed answer to the question and a drawing or mathematical representation (numbers, tables, equations, graphs, etc.) related to that journal entry or question.

Choose 6 out of the 20 questions

1. Write a humorous paragraph, poem or skit describing what it would be like to live in a world without numbers.
2. Create a money system the students in your grade could use. What items will be valuable? What will each item be worth? Explain why you think all countries should or should not have the same money system.
3. If zero represents "nothing", why is this numeral so important?

4. How could you calculate the number of minutes you have been alive? You **do not have to do the actual calculation**. I am interested in the steps you would take to do it.

5. List as many examples as you can of ways you use fractions in your daily life.

6. Imagine you are a news anchor-person. Write the lead story for the evening news in the city of Arithmetown, where everything that happens involves math.

7. Write an advertisement that would attract new students to your ideal math class. Be sure to make the class sound exciting and useful.

8. Imagine you have just walked into a local department or grocery store. Describe all the ways you might use numbers while you are shopping there.

9. Choose any profession and tell how a person in the profession might use math each day.

10. Write a paragraph, poem or skit describing how our lives would be different if we didn't have any round objects. Be creative!

11. Plan a class math field trip about to a city, park, museum or destination of your choice.

12. Think of a business you might like to own someday. Write a paragraph telling what things would have to estimate before opening your business. Describe how you would come up with these estimates.

13. What is meant by "mental math"? Discuss where and how you use mental math other than in math class.

14. Albert Einstein was a genius, but he received poor math grades in school. Do you think students should be graded on their schoolwork or not? Defend your argument.

15. Using math terms and their definitions, create a crossword puzzle with at least ten clues.

16. Imagine you are opening a store that sells only math-related items. Write an ad for your store.

17. If you could invent a new machine for use in schools, what would it be? Describe its function, size, price, etc. Give as many details as you can.

18. Write a word problem about your favorite summer activity. Include some information that is **unnecessary** for solving the problem. Math sure you also include a solution for your problem.

19. Write a letter to eventually give to your grandchildren. In it, explain what you use a computer for. How do you think computer use will be different for them?

20. Imagine you have just walked into a sports stadium or venue to see your favorite team play. Describe how you might use numbers while you are there.