

## AVOID SUMMER BRAIN DRAIN!

Dear Parents -

Experts from Johns Hopkins University, the University of Fivnessee, the University of Virginia, and elsewhere say most students, regardless of family income or background, lose over two months of the math computational skills that they learned during the school year over the summer. These findings suggest the obvious, children lose math ability when they don't use it.

This summer, to prevent this learning loss, keep the students' math computational skills sharp, and to reinforce the skills that they learned in 4<sup>th</sup> grade, we will be using an interactive website math program - IXL. It is our hope that this will help all of our students enter their next math course well prepared and ready to go!

Over the summer, students are expected to complete at least **5 hours** of math skills practice within IXL. Our hope is that the review will take place over the entire summer rather than during the last few days before we return to school. Ideally, your child will be working on IXL about three times a week over the course ten weeks. All work should be completed between **June 16<sup>th</sup> and August 31<sup>st</sup>**. **Work completed after this deadline, although great, WILL NOT be counted towards your grade.** If you do not have a home computer, we encourage you to visit a local library or partner with a friend with internet access.

The summer assignment will be graded based on the amount of time spent **actively** working on IXL and it will be weighted as the equivalent of a test - 100 points. Thus, each  $\frac{1}{2}$  hour fully completed is worth 5 points. Any student who goes above the assigned 5 hours will receive 1 point of extra credit for each extra hour of work they do! It is an easy way to start the term with an A+!

It is our hope that the students will find this a valuable opportunity. If you have any questions, please feel free to contact me. [Sarah.Treacy@ourladysacademy.org](mailto:Sarah.Treacy@ourladysacademy.org)

Thank you for your support!

Sarah Treacy

## My New Fifth Graders -

You have worked so hard all year with Ms. Druid. You have made the math muscles in your brain **STRONG!!** Just like any other muscle, if you don't use it, you will lose it. You need to keep flexing those strong math muscles this summer! I know you are thinking, "It is summer! I want to play and swim, not do math!" I agree, I want you doing **ALL THE SUMMER THINGS**...but believe me, the little time you spend doing math this summer, will save you **A LOT** of time next year.

This summer you need to practice **AT LEAST** five hours of math skills on IXL. Take my advice, do not try to do all five hours the last week of August! Look at your summer and spread it out. You have to complete (at least) five hours, there are 60 minutes in an hour. How many minutes of IXL does that mean? How many days over the summer do you have to complete the work? From the amount of available days, subtract any days you know you don't want to be doing math. How many days does that leave you for IXL? Now, divide total IXL minutes by how many days you have to complete it. How much IXL should you do each day? Do the math! ☺ Not so bad, right? Plenty of time left for play!

I have included the most important 5<sup>th</sup> grade IXL sections on the back of this page. Do I expect you to complete this whole page?? No way! There are a lot of topics there!! However, for as many topics as you can, you should reach a "**smart score**" of at least 80. Getting started is easy! Sign on to IXL using your username and password. Choose the **5<sup>th</sup> grade** tab, select a skill from the checklist on the back and start answering questions! If you answer a question correctly, you will be given another question. If your answer is wrong you will be given an explanation of why your answer is wrong. Once you understand it, click on "Got it" and you will be given another question. If you encounter an assigned skill that you don't remember, or think that you have not learned, you can view tutorials on the topic at [www.khanacademy.org](http://www.khanacademy.org), as well as other websites you find helpful.

Unless otherwise noted, the section refers to **5<sup>th</sup> Grade**. If you complete the material in your grade level before you have spent 5 hours working, please either go back to the sections you had most difficulty with and try to beat your previous score **OR** challenge yourself by finding the corresponding skill in 6<sup>th</sup> grade and attempt those problems!

If you have any questions, email me! My email is [sarah.treacy@ourladysacademy.org](mailto:sarah.treacy@ourladysacademy.org). I will answer within a day or two. Have a great summer! I can't wait to see you in the Fall.

Mrs. Treacy

## 5<sup>th</sup> Grade Math

### Place Value and Number Sense

Rounding

### Multiplication

Multiply by 3 Digit Numbers

### Divison

Estimate Quotients

Divide larger numbers by 2-digit numbers

### Exponents

Understanding Exponents

Evaluate Exponents

### Number Theory

Prime and Composite Numbers

Prime Factorization

Divisibility Rules

Greatest Common Factor

Least Common Multiple

### Decimals

Place values in decimal numbers

Put decimal numbers in order

Compare decimal numbers and fractions

### Add and Subtract Decimals

Add and subtract decimals

### Multiply Decimals

Multiply a decimal by a mulit-digit whole number

### Divide Decimals

Division with Decimal Quotients

### Fractions and mixed numbers

Fractions review

Equivalent fractions

Least Common Denominator

Compare fractions and mixed numbers

Reciprocals

### Add and Subtract Fractions

Add mixed numbers with unlike denominators

Subtract mixed numbers with unlike denominators

### Multiply Fractions

Multiply two mixed numbers

### Divide Fractions

Divide two fractions

### Mixed Operations

Add, subtract, multiply, divide decimals

Add, subtract, multiply, divide fractions and mixed numbers