AVOID SUMMER BRAIN DRAIN!

Dear Parents -

Experts from Johns Hopkins University, the University of Tennessee, 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 4th 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 15th and August 31st. 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 ½ hour fully completed is worth 10 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

Thank you for your support!

Sarah Treacy

My New Fifth Graders –

You have worked so hard all year with Ms. Druid and Ms. Capite. 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 his 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 4th 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 **4th 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, as well as other websites you find helpful.

Unless otherwise noted, the section refers to **4th 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 5th grade and attempt those problems!

If you have any questions, email me! My email is 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

4th Grade Math

Place Value and Number Sense

Value of a digit

Convert between standard and expanded form

Place value names

Convert between place values

Rounding

Addition

Add numbers up to millions

Add numbers up to millions- word problems

Subtraction

Subtract numbers up to millions

Subtract numbers up to millions- word problems

Multiplication

Multiplication facts to 12

Identify factors

Multiply 2 digit numbers by 2 digit number – word problems

Multiply 2 digit number by a larger number

Division

Division facts to 12

Divide 2 digit numbers by 1 digit numbers – word problems

Divide larger numbers by 1-digit numbers – word problems

Mixed Operations

Add, subtract, multiply, and divide

Add, subtract, multiply, and divide - word problems

Multi-step word problems

Decimals

Understanding decimals expressed in words

Place values in decimal numbers

Put decimal numbers in order

Equivalent decimals

Round decimals

Compare decimal numbers

Compare decimal numbers and fractions

Convert decimals to fractions and mixed numbers

Convert fractions and mixed numbers to decimals

Compare decimals and fractions

Add and Subtract Decimals

Add decimal numbers

Subtract decimal numbers

Add and subtract decimals –word problems

Fraction equivalence and ordering

Fractions review

Mixed number review

Equivalent fractions

Least Common Denominator

Compare fractions with like and unlike denominators

Compare fractions

Order fractions

Convert between improper and mixed numbers

+/- Fractions w/like denominators

Add fractions with like denominators

Subtract fractions with like denominators

+/- Fractions w/unlike denominators

Add fractions with unlike denominators

Subtract fractions with unlike denominators

Multiply Fractions

Try anything in this section!

Multiply two mixed numbers

Divide Fractions

Divide two fractions

Anything in this section