

## Summer Math & Literacy Practice Getting Ready for Grade 5

Dear Parents,

Congratulations on the completion of a wonderful school year with your child. Your partnership with your child's teacher is among the biggest factors in their success. As we look ahead to the summer break, we want to continue that partnership and ensure all students will find time to enjoy some pleasurable reading, writing, and math activities during the break.



Research has shown that over the summer months students often regress in their academic skills by one month or more. Each year, considerable instructional time is spent reviewing skills and knowledge lost over the summer. This summer learning effect has been observed in schools around the world and can contribute to a widening gap in achievement over time. This data reinforces the importance of reading and practicing Math and Literacy skills over the summer holiday. For this reason, we have created calendars with fun Math and Literacy activities for your child to complete over the summer months.

These summer activities will enable your child to review concepts and reinforce skills learned during the past school year. The work they do over the summer will be turned in to your child's teacher and reviewed in class during Group Share and Evaluation time at the start of the school year.

### In Grade 4, instructional time in math focused on three critical areas:

1. Developing understanding and fluency with multi-digit multiplication, and developing understanding of dividing to find quotients involving multi-digit dividends
2. Developing an understanding of fraction equivalence, addition and subtraction of fractions with like denominators, and multiplication of fractions by whole numbers
3. Understanding that geometric figures can be analyzed and classified based on their properties, such as having parallel sides, perpendicular sides, particular angle measures, and symmetry.

### In Grade 4, instructional time in Literacy focused on:

1. Developing strategies to support independent reading comprehension, fluency, and accuracy
2. Engaging in the writing process using the 6+1 traits
3. Strengthening and widening vocabulary and word knowledge

Just a few minutes each day spent thinking and talking math and practicing literacy skills will help reinforce the learning that has happened over the past year and will build the foundation for the skills and concepts that will be developed during the upcoming school year. This summer learning packet consists of 2 calendar pages, one for July and one for August. Literature and websites are also recommended to explore mathematics and literacy in new ways. While your child is working on math problems, discuss the math concept being targeted. Your child should aim to complete at least 15 math days each month as well as weekly literacy prompts. Additionally, students should be reading independently or with a parent at least 30 minutes a day.

**\*Please have your child highlight which math problems they did on the attached calendar pages and be prepared to turn in a notebook showing their calendar math and literacy work upon return to school. Orientation/Open House is on Wednesday August 29 and the first day of classes is on August 30, 2018.** Wishing you a safe and restful summer!

## Parent Tips for Supporting Your Child with Summer Work

In order for your child to benefit from summer work, they should space the practice work out over the summer, opting to do a little bit each week rather than all of it at once at the beginning of summer or right before returning to school in August.

### Tips for Helping Your Child with Literacy:

Help your child choose books that they can read without much help. While they are reading, help them do the following:

- Encourage your child to use decoding and word knowledge strategies to help identify unknown words.
- Re-read familiar books to help build fluency.
- Encourage your student to read with accuracy, speed, and expression.
- Talk about what is happening in the text and help connect the reading to your child's life or other books that they've read.
- Echo read a difficult text to help with fluency and comprehension.

While they are writing, help them to:

- Practice spelling words correctly using word knowledge strategies.
- Enrich their writing with details and strong vocabulary.
- Review their writing and make appropriate changes.

### Tips for Helping Your Child with Math:

- Expect your child to work hard and be good at math.
- Ask "How did you get that?" "Can you show me another way to do that?" "Remember how you did \_\_\_\_\_, see if you can use that same strategy."
- Encourage your child to stick with a task even if it seems challenging.
- Highlight the math in everyday activities, such as cooking, shopping, and playing sports.
- Play math games like Yahtzee and Monopoly. Playing with blocks and completing jigsaw puzzles are great ways to help reinforce spatial skills and look for patterns.
- If you see signs of frustration, suggest leaving the problem for a day or two and returning to it with fresh perspective at another point.
- Listen carefully to how your child is thinking about math.
- Let them figure it out themselves by asking questions without telling them what to do. Here are some great conversation prompts as your child works through their summer math.

#### **In the beginning....**

What do you know?

What do you need to find out? How might you begin?

What should you do first?

#### **While working....**

How can you organize your information?

Can you make a drawing to explain your thinking?

What would happen if...?

What do you need to do next?

Do you see any patterns? Any relationships?

Can you predict...?

Does this remind you of any other problems you've done?

#### **Reflecting on Solutions...**

Is your solution reasonable?

How did you arrive at your answer?

Can you convince me that your solution makes sense? What did you try that didn't work?

#### **Responding...**

Your response is as important as your initial question. Continue to discuss problems even after children have their answer. This will give your child a chance to clarify thinking and make more connections.

#### **You can ask:**

How do you know that your answer makes sense?

Do you know another way to solve this?

Do you think there is more than one answer? How could we find out?

*Special Thanks to [Project Aero](#) and Ms. Erma Anderson for the Summer Math Calendars*

## JULY MATH PRACTICE

	Monday	Tuesday	Wednesday	Thursday	Friday	
1	<b>2)</b> Write three facts about the number 28. Is this number prime or composite? How do you know? Round this number to the nearest 10.	<b>3)</b> A lawn water sprinkler rotates 65 degrees and pauses. It then rotates 25 more degrees in the same direction. What is the total degree rotation of the sprinkler? To cover a full 360 degrees, how many more degrees will it move?	<b>4)</b> Draw a square, and then draw all lines of symmetry for that square.	<b>5)</b> Solve the riddle: I have 5 in the tenths place. I have 7 in the thousandths place. I have 4 in the ones place. I have 2 in the hundredths place. What decimal am I? Write your own riddle.	<b>6)</b> Skip count by 5's starting at 1. What patterns do you notice? Explain why you think these patterns are happening.	7
<b>Literacy Prompt week of July 2: What is one thing you are looking forward to this summer? Why? Explain with details.</b>						
8	<b>9)</b> Identify, record and classify angles: acute (less than 90°) obtuse (greater than 90°), right (90°) in everyday things (buildings, bridges, furniture...).	<b>10)</b> Write down the names and prices of 5 cars you find in the newspaper or online. Order the prices from least to greatest. Round the prices to the nearest thousand. Which one would you buy? Why?	<b>11)</b> 15 friends want to order pizza for dinner. They predict that each person will eat 1/3 of a pizza. How many pizzas should they order? What if there were 9 friends and they each ate 1/3 of a pizza?	<b>12)</b> The sum of two mixed numbers is 5. What might the two mixed numbers be? Show as many different solutions as you can. Explain your strategy.	<b>13)</b> Write down the numbers you see on 2 license plates. Create 4 math problems with these numbers using all 4 operations (+, -, x, ÷).	14
<b>Literacy Prompt week of July 9: Give four pieces of advice for how to survive a family vacation.</b>						
15	<b>16)</b> Write 2 fractions that are equivalent to $\frac{3}{5}$ ?	<b>17)</b> Find all of the factors of 48.	<b>18)</b> Jacob is making a stew. The stew calls for $\frac{3}{8}$ cup of rice. If he triples the recipe, how much rice will he need? Write an addition or multiplication problem to show your answer.	<b>19)</b> Solve the division problem below.  $467 \div 9 = \underline{\quad}$	<b>20)</b> Put the fractions in order from least to greatest. $\frac{3}{8}, \frac{9}{10}, \frac{1}{2}, \frac{1}{3}$	21
<b>Literacy Prompt week of July 16: Write a paragraph about a character in the book you are reading. Do you think you would like to be friends with this character? Why or why not?</b>						
22	<b>23)</b> List the first 5 multiples of 8.	<b>24)</b> In the number 37,832 what is the value of the 8?	<b>25)</b> What is the perimeter of a square with sides that measure 4 meters?	<b>26)</b> Order the numbers from least to greatest: 0.3, 0.13, 0.19, 0.31	<b>27)</b> Estimate the product and then solve the problem. $62 \times 82 = \underline{\quad}$	28
<b>Literacy Prompt week of July 23: Write a poem about your favorite things to do in the summer. Draw a picture to accompany it.</b>						
29	<b>30)</b> Write <, >, or = $\frac{2}{10} \underline{\quad} \frac{3}{5}$	<b>31)</b> Write 7,129 in expanded form.		<b>Fun Websites to explore:</b> <a href="https://www.funbrain.com/">https://www.funbrain.com/</a> <a href="https://www.nctm.org/illuminations/">https://www.nctm.org/illuminations/</a> <a href="http://playkidsgames.com/">http://playkidsgames.com/</a> <a href="http://figurethis.nctm.org/">http://figurethis.nctm.org/</a> <a href="https://www.coolmath4kids.com/">https://www.coolmath4kids.com/</a>		

## AUGUST MATH PRACTICE

	Monday	Tuesday	Wednesday	Thursday	Friday	
			1) Draw a design using symmetry. What makes your design symmetrical?	2) Visit the website <a href="https://www.mathplayground.com/">https://www.mathplayground.com/</a> Play the logic games. How did you do?	3) If a rectangle has an area of 27 sq. cm. and its width is 3 cm., what is the length?	4
<b>Literacy Prompt week of July 30: Explain the theme or message of the book that you have most recently finished. Would you recommend this book to a friend? Why or why not?</b>						
5	6) Tom and Ben ordered a pizza for lunch. They each ate 1/3 of the pizza. How much pizza was eaten? How much pizza was left?	7) Play Concentration at <a href="https://illuminations.nctm.org/Search.aspx?view=search&amp;type=ac&amp;kw=concentration&amp;gr=3-5">https://illuminations.nctm.org/Search.aspx?view=search&amp;type=ac&amp;kw=concentration&amp;gr=3-5</a> Choose: fractions, face down.	8) At her job, Mrs. Miller works 7 hours a day, Monday through Friday. How many hours does she work in 2 weeks?	9) Measure the perimeter of two different sized windows in your home. Find the difference of the perimeters.	10) A cake recipe calls for you to use 3/4 cup of milk, 1/4 cup of oil, and 2/4 cup of water. How much liquid was needed to make the cake? Is this more or less than a pint? How do you know?	11
<b>Literacy Prompt week of August 6: Write a letter to a friend persuading them to go on a trip with you. Include at least three reasons why they should join you.</b>						
12	13) Sarah is having a party with 11 friends. They are telling scary stories and divide into 3 groups. Each group tells a story. Each group member talks for 3 minutes. How many minutes does each group take?	14) Tony and Laura are designing a soccer uniform. They want to use two colors on the shirt. Their choices are green, orange, yellow, purple, blue, and silver. How many ways can they choose the two colors?	15) What factors can you use in this equation, $? \times 5 = \underline{\quad}$ to make a product that is an odd number between 30 & 60? Show all solutions. Explain your strategy.	16) The difference between two mixed numbers is $3\frac{1}{4}$ . What might the two mixed numbers be? Show as many different solutions as you can. Explain your strategy.	17) I earn \$5 per hour babysitting and \$4 per hour for weeding the garden. Last week I did 7 hours babysitting and 6 hours weeding. How much more money do I need to buy a game that costs \$80.00?	18
<b>Literacy Prompt week of August 13: What is the best book to take with you on vacation? Why? Give at least two good reasons.</b>						
19	20) List some capital letters (H, F...) that have one pair of parallel lines. Are there any that have 2 pair of parallel lines or 3?	21) Make the largest and smallest numbers you can find using the digits: 4, 1, 7, 8, and 2. Find their difference and sum.	22) A regular pentagon measures $2\frac{1}{8}$ cm on one side. What is its perimeter?	23) Write the number below in standard form. $90,000 + 4,000 + 300 + 60 + 2 =$	24) Round 16,326 to the nearest ten.	25
<b>Literacy Prompt week of August 20: Make a top 10 list for summer. Include best songs, food, vacation spots, etc.</b>						
26	27) What are the factors that 36 and 24 have in common?	28) Use rounding to estimate the product: $36 \times 54 = \underline{\quad}$	29) Are $\frac{3}{8}$ and $\frac{3}{4}$ equivalent fractions? How do you know?	30) Is 23 a prime or a composite number. How do you know?	31) Read a book about math. (See list attached).	
<b>Literacy Prompt week of August 27: Write a letter to your new teacher this year. What should he/she know about you? What are you excited for this school year?</b>						

<b>SUMMER MATH HOMEWORK SELF-ASSESSMENT RUBRIC</b>				
	<b>Exemplary</b>	<b>Proficient</b>	<b>Beginning</b>	<b>Needs Improvement</b>
<b>Completion</b>	I completed more than 35 math calendar problems this summer.	I completed 30-35 math calendar problems this summer.	I completed fewer than 30 math calendar problems this summer.	I did not complete any math calendar problems this summer.
<b>Pacing</b>	I spent time working on calendar math problems weekly.	I usually worked on calendar math problems weekly.	I did not space out my calendar math problems weekly over the summer.	I did not complete any math calendar problems this summer.
<b>Quality &amp; Neatness of Work</b>	I kept a notebook; I labelled each problem clearly; I showed my work neatly; I clearly identified my answers.	I kept a notebook; I usually labelled each problem; I sometimes showed my work; I sometimes identified my answers.	I did not keep a notebook; my work was done on scratch paper; I did not always show my work; I did not clearly identify my answers.	I did not complete any math calendar problems this summer.
<b>Accuracy</b>	My answers to summer math problems were more than 90% accurate.	My answers to summer math problems were 80-89% accurate.	My answers to summer math problems were 70-79% accurate.	My answers to summer math problems were less than 70% accurate.

<b>SUMMER LITERACY HOMEWORK SELF-ASSESSMENT RUBRIC</b>				
	<b>Exemplary</b>	<b>Proficient</b>	<b>Beginning</b>	<b>Needs Improvement</b>
<b>Completion</b>	I responded to more than 7 reading prompts this summer.	I responded to 5-7 reading prompts this summer.	I responded to fewer than 5 reading prompts this summer.	I did not respond to any reading prompts this summer.
<b>Pacing</b>	I spent time working on my reading prompts this summer.	I usually worked on calendar reading prompts monthly.	I did not space out my calendar reading prompts weekly over the summer.	I did not respond to any reading prompts this summer.
<b>Quality &amp; Neatness of Work</b>	I kept a notebook; my handwriting is very neat; if I included a picture, it is carefully and neatly done and entirely matches the text.	I kept a notebook; my handwriting is legible; if I included a picture, it is nicely done and matches my text.	I did not keep a notebook; my work was done on scratch paper; my handwriting is barely legible; if I included a picture, it is a bit rushed and does not entirely match the text	I did not respond to any reading prompts this summer.
<b>Ideas and Content</b>	I was able to respond to all of the reading prompts; I provided great details to support my opinion; my thoughts were narrow and to the topic.	I was able to respond to most of the reading prompts; I included some details to support my opinion; my thoughts were a bit generic.	I was not sure how to respond to most of the reading prompts; I didn't have many details to my answer; my thoughts were repetitive.	I did not respond to any reading prompts this summer.

<b>Suggested Reading List - Math</b>	
<b>Author</b>	<b>Title</b>
Burns, Marilyn	The I Hate Mathematics! Book Brown Paper School Book: Math for Smarty Pants This Book Is about Time
Juster, Norton	The Phantom Tollbooth
VanCleave, Janice Pratt	Janice VanCleave's Math for Every Kid: Easy Activities That Make Learning Math Fun Janice VanCleave's Geometry for Every Kid
Schwartz, David M.	G Is for Googol: A Math Alphabet Book
Scieszka, Jon	Math Curse
Pappas, Theoni	Math for Kids and Other People, Too!

<b>Suggested Reading List - Literacy</b>	
<b>Author</b>	<b>Title</b>
Cleary, Beverly	Dear Mr. Henshaw
Clements, Andrew	Frindle
Creech, Sharon	Walk Two Moons
Dahl, Roald	Matilda
Farmer, Nancy	The Warm Place
Jones, Kelly	Unusual Chickens for the Exceptional Poultry Farmer
Konigsburg, E.L.	From the Mixed-Up Files of Mrs. Basil E. Frankweiler
O'Dell, Scott	Island of the Blue Dolphins
Sachar, Louis	Holes
Yep, Lawrence	A Dragon's Guide to the Care and Feeding of Humans