



Summer Math Learning Packet

Students Entering Grade 4

Get ready to discover mathematics all around you this summer! Just like reading, regular practice over the summer with problem solving, computation, and math facts will maintain and strengthen the mathematic gains you made over the school year.

Inside you will find creative mathematics activities to explore at home. The goal is for you to have fun thinking and working collaboratively to communicate mathematical ideas. While you are working ask how the solution was found and why a particular strategy was chosen.

The packet consists of 2 calendar pages, one for July and one for August, as well as directions for math games to be played at home.

Literature and websites are also recommended to explore mathematics in new ways. We encourage you to complete at least 15 math days each month. Keep track of your math in a journal.

Student Accountability

The intention is that your child spends at least 10 minutes a day, 4 to 5 times a week, practicing math. Your child should aim to complete at least 200 minutes of math practice over the course of the summer. When your child has completed the math requirements, please sign and return this paper to the fourth grade teacher with his/her journal.

Parent's signature

Date



Grade 4 Summer Math Ideas

Math Tools You'll Need:

Notebook for math journal	
Pencil	Dice
Crayons	
Regular deck of playing cards	

DIRECTIONS:

Do your best to complete as many of these summer math activities as you can! Record your work in your math journal every day. In September share your Math Journal with your second grade teacher.

Each journal entry should:

- ✓ Have the date of the entry
- ✓ Have a clear and complete answer
- ✓ Be neat and organized

Here an example of a "Great" journal entry:

July 5 th Today I went outside to play at 9:35 a.m. and came in at 12:05 p.m. I was outside for a total of 90 minutes. This can also be written as 1 hour and 30 minutes, or $1\frac{1}{2}$ hours.
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Cool Math Books to Read:

The \$1.00 Word Riddle Book by Marilyn Burns
Fraction Fun by David Adler
The Best of Times by Greg Tang
Pigs Will be Pigs: Fun with Math and Money by Amy Axelrod

Games To Play (You will need a deck of cards, with all the face cards removed. Treat the ace as the number 1.)

1. **Multiplication War** - Deal out all the cards equally between 2 or 3 players. Each player turns over 2 cards and multiplies the numbers together. The person with the higher product wins the pile of cards. If you have the same product repeat the procedure. Winner takes all the cards.

2. **Close to 1000** - Deal 8 cards to each player. Use any 6 of your cards to make two 3-digit numbers. Try to get a sum that is close to or equal to 1000. Write these 2 numbers in your journal. Your score is the difference between your number and 1000.

Example: Your eight cards are 1, 5, 4, 3, 1, 8, 3, 8
You can combine $148 + 853 + 1001$. Your score is 1 since the difference between 1001 and 1000 is 1. Discard the 6 used cards and pick 6 new cards. Whoever has the lowest total score after 5 rounds wins the game.

Other games to play: Monopoly, Othello, Battleship, Connect Four, Mastermind, Mancala, Legos, K'Nex, Simon, Yahtzee

Fun Websites to Explore:

<p>www.funbrain.com www.figurethis.org www.aplusmath.com www.setgame.com www.illuminations.nctm.org Click on ACTIVITIES. Click on K-2 and press SEARCH.</p>
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July 2010 Entering Fourth Grade Mathematics Calendar

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1 Have a scavenger hunt for real-world examples of right angles (ex. the corner of a book)	2 Play the game <i>Close to 1000</i> . (see directions)	3
4	5 How many different ways can you make \$3.25? How many quarters can you have if you have \$3.25 in quarters?	6 Practice math facts in a fun way at the website www.multiplication.com What games did you play?	7) Look at how probability is used everyday, such as weather reports. Make a list of things that could: never happen, might happen, and are sure to happen.	8 Play a game. What strategy did you use? Would you use the same strategy again?	9 Play the <i>Product Game</i> at www.illuminations.nctm.org Record the strategy that you used.	10
11	12 Draw a design that has symmetry.	13 Make a data table to record the high temperature for the next 7 days starting today.	14 Write a story problem that can be solved using the number sentence $9 \times 3 = \underline{\hspace{2cm}}$.	15 What cars are parked on your street? Create a table of the make of cars parked on our street (ex. Honda, Ford...)	16 Read <i>The Best of Times</i> By Greg Tang. Make a set of flash cards and practice the multiplication facts.	17
18	19) Play <i>Chairs</i> at www.illuminations.nctm.org If you have 8 tables, what's the greatest number of people you can seat in a line?	20 Play a strategy game. What strategy did you use? Would you use it again?	21 How many different ways can you make \$1.00 using quarters, nickels, and dimes?	22 Is there a street parallel to your street? Look on a map and find 2 streets that are parallel and 2 streets that are perpendicular to each other.	23 Figure your age in months.	24
25	26) Roll 2 dice and multiply to find the <u>product</u> . Record the products. Do this 25 times. Create a bar graph with the results. What do you notice?	27) Read <i>Pigs Will be Pigs: Fun with Math and Money</i> by Amy Axelrod. Get a menu from a restaurant and add up what it would cost for your family to eat there.	28) Ask family and friends what their favorite summer activity is. Use a tally chart to collect your data. Make a graph of your choice to show the results.	29 Try a new game at www.funbrain.com Challenge yourself.	30 Read <i>Fraction Fun</i> By David Adler. Which is larger, $\frac{2}{3}$ or $\frac{3}{4}$? How do you know? Prove it.	31

August 2010 Entering Fourth Grade Mathematics Calendar

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2 Go to the website www.setgame.com Play and enter to win a prize!	3 Gather 3 store receipts. Find the total amount that was spent.	4 Count the change an adult has this morning. Count the change an adult has this evening. What's the difference?	5 Choose one activity for a day and record the start and stop time. Calculate the elapsed time for the activity. (ex. time you wake up and go to sleep)	6 Draw a picture that only uses geometric shapes. Identify as many shapes as possible.	7
8	9) Find 4 numbers larger than 1,000 in a newspaper. Put them in order from least to greatest. What is the difference between the smallest and the largest?	10) Play <i>Concentration</i> at www.illuminations.nctm.org Choose cards: <i>fractions</i> games: <i>face down</i> Draw pictures that represent some fractions.	11) Select ten items from a grocery flyer and find the total cost of the items. Calculate how much change you would receive from a one hundred dollar bill.	12 Play a game. What strategy did you use? Would you use the same strategy again?	13 Write multiplication and division combinations for 6, 7, and 42. Can you write a word problem to go with these equations?	14
15	16 How many hours did you sleep last night? Bedtime: _____ Wake time _____	17 Write a word problem whose answer is 12. Have someone solve the problem. Choose another answer and make up a problem.	18 Write a schedule for tomorrow that includes the hours and minutes of your activities.	19 A farmer has chickens and cows. What combination of animals could total 24 legs? Is there more than one combination?	20 Play <i>Multiplication War</i> . (see direction page)	21
22	23 Use the flash cards that you made, and practice your multiplication facts.	24) Family fun! Go on a road trip. Write down the miles on the odometer when you leave. Write down the miles when you get home. How many miles did you travel?	25 Try a new activity at www.coolmath4kids.com Challenge yourself.	26 Read <i>The \$1.00 Word Riddle Book</i> by Marilyn Burns. What is your name worth? What is the most expensive word you can make?	27 You went shopping with a \$5 bill and spent \$2.40. Is your change more or less than 40 dimes? Prove your answer.	28
29	30 Plan a meal for your family. With an adult, make a list of the ingredients, go shopping, and then follow the recipes.	31 YOU DID IT! Please bring your journal to your fourth grade teacher on the first day of school!				