



# Summer Math Learning Packet

## *Students Entering Grade 1*

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 first grade teacher with his/her journal.

\_\_\_\_\_  
Parent's signature

\_\_\_\_\_  
Date



# Grade 1 Summer Math Ideas

Math Tools You'll Need:

Notebook for math journal	Coins
Pencil	Dice
Chalk	
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 first grade teacher.

### Each journal entry should:

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

Here is an example of a "Great" journal entry:

July 5 <sup>th</sup> Today I counted all the toes in my family. Here is a picture of the toes. (Draw a picture) There are 30 toes. $5 + 5 + 5 + 5 + 5 + 5 = 30$
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### Cool Math Books to Read:

Shape, Shape, Shapes by Tana Hoban

Pattern Fish by Trudy Harris

Ten Black Dots by Donald Crews

Inch by Inch by Leo Lionni

The Button Box by Margarette S. Reid

Games To Play (You will need a deck of cards)

### 1. **Compare**

Remove the face cards from a deck of cards. Remember an Ace is the same as 1. Pass out all cards in the deck among all of the players. Each player flips over one card at the same time. The player with the higher number keeps both cards. If the two cards are the same, turn over another card. The player with the higher number keeps all four.

### 2. **Double Compare**

Same as above, but turn over two cards each time and find the sum. The one with the larger sum takes the cards.

### 3. **Close to 10**

Remove the face cards from a deck of cards. Deal 3 cards to each player. Which two cards brings you closest to 10? Which player is closest to 10?

Example: You turn over the cards 5, 4, 3 and your opponent turns over an Ace, 8, and 3. You can make 9 (5 and 4) and your opponent can make 9 (Ace and 8) or 11 (8 and 3). It's a tie since you are both 1 away from 10!

Other games to play: Checkers, Memory, Chutes and Ladders, jigsaw puzzles, Parcheesi, Fish, Crazy Eights, Candy Land, Blink, Connect Four, Legos, K'Nex.

### Fun Websites to Explore:

[www.funbrain.com](http://www.funbrain.com)

[www.aplusmath.com](http://www.aplusmath.com)

[www.pbskids.org](http://www.pbskids.org)

[www.illuminations.nctm.org](http://www.illuminations.nctm.org) Click on **ACTIVITIES**. Click on **K-2** and press **SEARCH**.

# July 2010 Entering First Grade Mathematics Calendar

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
				1 Play with bubbles. How many can you blow in one minute?	2 Read <u><i>Shape, Shape, Shapes</i></u> by Tana Hoban. Walk outside what shapes do you see? Draw all the shapes you see.	3
4	5 Look at some of your toys. Try to sort them into groups. Explain to someone how you sorted them.	6 Play <u>Compare</u> (see directions)  How did you decide which number is greater?	7 Describe 3 different ways to make 10 cents.	8 Use sidewalk chalk to write all the numbers (in order) that you can. (Use paper and pencil if you do not have chalk)	9 Toss ten pennies. How many heads? How many tails? Try again! Did you get the same result?	10
11	12 Read <u><i>Inch by Inch</i></u> by Leo Leonni. What parts of your body can you use to measure things in your house and outside.	13 Hop on your right foot and count how many hops you can do it! Hop on your left foot. What foot could you do more hops on? Compare.	14 Ask your family which food they would like at a cookout. Which food did people want the most? Which food did people want the least?	15 Count backwards how long it will take you to put on your shoes. For example 20 seconds. 20, 19, 18...	16 Grab a handful of objects. (Pennies, beads, marbles...) Guess how many there are. Count your objects. Were you close to your estimate?	17
18	19 Keep track of the weather for one week. How many sunny days? Rainy days? How many more rainy days than sunny days?	20 Count the people that live in your house with you. How many toes do they have altogether? How many fingers?	21 Write your name on a piece of paper. How many letters are there in your name? How many letters are there in the names of all your family?	22 Walk around the house. How many steps does it take you to get around your house. Then try giant steps. Which used more steps?	23 How many jumping jacks can you do in one minute? Is it more or less than 20? How do you know?	24
25	26 Make a pattern. Challenge someone to continue it. Can you make a different pattern using the same things?	27 Make a picture using 2 circles, 3 triangles, and some rectangles. Explain how you made it to someone!	28 Explore one of the recommended websites.  What math did you learn?	29 Count backwards starting at 10... 15... 20... 25...	30 Make numbers or shapes out of play dough.	31

# August 2010 Entering First Grade Mathematics Calendar

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
1	2 Read <u><i>The Button Box</i></u> by Margarette Reid Find a collection in your house to sort.	3 Set the table for dinner! How many plates do you need to put out? How many forks? How many glasses? Make sure everyone has a place!	4 How long is your room? Measure with blocks or toys. Measure with your feet. Which was more? Which is less?	5 Draw and label a picture of your family from tallest to shortest	6 Count the number of steps it takes to get from your front door to the refrigerator. Represent this number.	7
8	9 Find 10 coins in your house. What do they add up to? Is it more or less than 25 cents?	10 Name five different places you see numbers outside. (on street signs, stores, license plates...) Draw a picture of the places	11 Read <u><i>Pattern Fish</i></u> by Trudy Harris Draw, build, or sing your own pattern.	12 Draw what you are doing at 2 different times today when the minute hand of the clock is on the "12"	13 Do a yes/no survey asking the people in your house, "Do you like the rain?" Circle which side has the most answers.	14
15	16 Play <u>Double Compare</u> (see directions)  What number facts are easy for you?	17 Roll two number cubes or dice and add the two numbers together. How many times did you have to roll to get a 12? Try again	18 Play a strategy game <u>Connect 4</u> or <u>Checkers</u> Did your strategy work? Will you try a different strategy the next time you play?	19 Estimate how many spoonfuls it will take to finish your cereal. Count each spoonful as you eat. How close were you to your estimate?	20 Go around your house and count the windows and doors. Are there more windows or doors? Draw the one with more.	21
22	23 Pick a number from 1-12. Find that number around your house! Look at clocks, phones, books, magazines, etc... Pick another number	24 Read <u><i>Ten Black Dots</i></u> by Donald Crews Name different objects that come in groups of 1,2,3,... Make your own book	25 Tell an adult in your home something you did yesterday. Tell them something you will do tomorrow.	26 Play <u>Close to 10</u> (see directions)  How does this help you to practice your facts?	27 Practice "counting" on from numbers other than 1. Example: Start at 4,5,6... Start at 17, ... Start at 32, ...	28
29	30 Build something with 20 blocks or legos. Describe your structure and the shapes you used.	31 YOU DID IT! Please bring your journal to your first grade teacher on the first day of school.				