Clover School District
Summer Math Learning Packet
Students Entering Grade 1

These summer math activities will enable your child to review math concepts and reinforce skills learned this year. Just a few minutes each day spent "thinking and talking math" will help reinforce the math that has been learned and begin to bridge the foundation for extending to the concepts that will be developed next year. The goal is for your child to have fun thinking and working collaboratively to communicate mathematical ideas. While your child is working, ask him how the solution was found and why a particular strategy was chosen.

The math practice in this summer packet addresses 2 critical areas in grade K:
1. representing, relating, and operating on whole numbers, initially with sets of objects
2. describing shapes and space.

The packet consists of 2 calendar pages, one for June and one for July, as well as directions for math games to be played at home. There are problems included for each day of the week, excluding weekends. Literature, worksheets, APPs and websites are also recommended to explore mathematics in new ways. We encourage your child to complete at least 15 math days each month. We hope your child will spend at least 10 minutes a day, 4 to 5 times a week, practicing math. Create a goal with your child to help him stay strong in math over the summer. For example, my child will aim to complete at least 200 minutes of math practice over the course of the summer and keep track of his learning in a math journal.

If the activities suggested don't seem to "fit your child" or you have your own websites/literature/math practice you would like to do, then feel free to substitute your own activities that better suit your child's needs or learning style.

Student mathematicians - keep your mathematics skills sharp and have a safe and enjoyable summer. ☺

Grade 1 Students
Summer Math Ideas

Math Tools You Will Need:

Notebook for math journal	Coins
Pencil	Dice
Chalk	Play dough
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 August, 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:

> June 17, 2015
> 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

Math Books to Read:

Shape, Shape, Shapes by Tana Hoban
The Secret Birthday Message by Eric Carle
Ten Black Dots by Donald Crews
Every Buddy Counts by Stuart Murphy
The Button Box by Margarette S. Reid

Websites:

http://illuminations.nctm.org/Games-Puzzles.aspx
http://www.funbrain.com/
http://www.aplusmath.com/
http://pbskids.org/cyberchase/math-games/
http://www.gregtangmath.com/
http://www.coolmath4kids.com/
http://bedtimemath.org
http://www.playkidsgames.com./
http://www.coolmath.com/
http://www.figurethis.org./index.html
http://resources.oswego.org/games/mathmagician/cathymath.html
http://xtramath.org/

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 added together 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 is a tie since you are both 1 away from 10!

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

Worksheets to Practice Math:

http://www.gregtangmath.com/materials
http://www.commoncoresheets.com/

APPs:

Grades K-2	All Grades
- A Number Math App – practice basic elementary number facts - Time to Learn - Bedtime Math - Everyday Mathematics, Addition Top it - Fast Facts Math Addition, Subtraction - Domino-KIDS-Calculations - Math Word Problems Addition and Subtraction - Count Money 2nd grade - Know Your Math Facts - Kindergarten Math: Drills in Addition, Subtraction, Comparison 10 Frame Fill - Preschool Math – Basic Skills School - Number Bond Blasters - Adding Apples - Number Rack	- KENKEN - Kakooma Addition - Quick Math – Arithmetic & Times Tables - Pick-a-Path - Sumdog - Conundra Math - Thinking Blocks

June 2015 Entering First Grade Mathematics Calendar

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
	1 Read **_Shape, Shape, Shapes_** by Tana Hoban. Walk outside what shapes do you see? Draw all the shapes you see.	2 Look at some of your toys. Try to sort them into groups. How many are in each group?	3 Play **Compare** (see directions) How did you decide which number is greater?	4 How long is your room? Measure with blocks or toys. Measure with your feet. Which was more? Which is less?	5 Use sidewalk chalk to write all the numbers (in order) that you can. (Use paper and pencil if you do not have chalk.)	6
7	8 Toss ten pennies. How many heads? How many tails? Try again! Did you get the same result?	9 Go to the grocery store. In your shopping cart, practice counting what you see. How many pieces of fruit? How many eggs in a carton?	10 Hop on your right foot and count how many hops you can do. Hop on your left foot and count how many hops you can do. Which foot could you hop more? Which foot could you hop less? Compare.	11 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?	12 Count backwards how long it will take you to put on your shoes. For example 20 seconds. 20, 19, 18…	13
14	15 Grab a handful of objects. (Pennies, beads, marbles…) Guess how many there are. Count your objects. Were you close to your estimate?	16 Keep track of the weather for one week. How many sunny days? Rainy days? How many more rainy days than sunny days?	17 Count the people that live in your house with you. How many toes do they have altogether? How many fingers?	18 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?	19 Walk around the house. How many steps does it take you to get around your house? Then try giant steps. Which used more steps?	20
21	22 How many jumping jacks can you do in one minute? Is it more or less than 20? How do you know?	23 Read a counting book and then make one of your own. Did you decide to make it counting forward or backwards?	24 Make a picture using 2 circles, 3 triangles, and some rectangles. Explain how you made it to someone!	25 Explore **http://playkidsgames.com/** What math did you learn?	26 Count backwards starting at 10… 15… 20… 25…	27
28	29 Make numbers or shapes out of play dough.	30 Read **_The Button Box_** by Margarette Reid. Find a collection in your house to sort. How many in each group?	**We encourage your child to** • **complete at least 15 math days each month** • **spend at least 10 minutes a day, 4 to 5 times a week, practicing math** • **use a math journal to record his work** • **create a goal to help him stay strong in math over the summer.**			

July 2015 Entering First Grade Mathematics Calendar

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
			1 Draw and label a picture of your family from tallest to shortest.	2 Count the number of steps it takes to get from your front door to the refrigerator. Represent this number.	3 A full case of juice boxes has 10 boxes. There are only 3 boxes in this case. How many juice boxes are missing? Write your answer in a complete sentence.	4
5	6 Three dogs were playing in the park. One more dog came to play. How many dogs are playing in the park?	7 Name five different places you see numbers outside (on street signs, stores, license plates…). Draw a picture of the places.	8 Bobby Bear is missing 5 buttons on his jacket. How many ways can you use blue <u>and</u> red buttons to finish his jacket? Draw a picture of all your ideas.	9 Draw what you are doing at 2 different times today when the minute hand of the clock is on the "12".	10 Do a yes/no survey asking the people in your house, "Do you like the rain?" Circle which side has the most answers.	11
12	13 Play **Double Compare** (see directions) What number facts are easy for you?	14 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.	15 Play a strategy game **Connect 4** or **Checkers.** Did your strategy work? Will you try a different strategy the next time you play?	16 Estimate how many spoonfuls it will take to finish your cereal. Count each spoonful as you eat. How close were you to your estimate?	17 Go around your house and count the windows and doors. Are there more windows or doors? Draw the one with more.	18
19	20 Pick a number from 1-12. Find that number around your house! Look at clocks, phones, books, magazines, etc… Pick another number.	21 Read ***Ten Black Dots*** by Donald Crews. Name different objects that come in groups of 1,2,3,… Make your own book.	22 I am thinking of a number. It has 1 ten and 5 ones. What number am I thinking of? Make up some riddles using tens and ones.	23 Play **Close to 10** (see directions) How does this help you to practice your facts?	24 Practice "counting" on from numbers other than 1. Example: Start at 4,5,6… Start at 17, … Start at 32, …	25
26	27 Build something with 20 blocks or Legos. Describe your structure and the shapes you used.	28 Play with bubbles. How many can you blow in one minute?	29 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!	30 Describe 2 different ways to make the number 10.	31 Play **Memory** YOU DID IT! Please bring your journal to your first grade teacher on the first day of school.	

Grade 1 Answer Key

Answers will vary for many of the activities depending on the choices students make. Here are the answers for activities with specific solutions.

July 3
There are 7 juice boxes missing.

July 6
There are 4 dogs playing in the park.

July 8
Students could draw pictures of:
4 blue and 1 red button
3 blue and 2 red buttons
2 blue and 3 red buttons
1 blue and 4 red buttons

July 22
The number is 15.

July 30
Students could make the ten in the following ways:
10 and 0
9 and 1
8 and 2
7 and 3
6 and 4
5 and 5
4 and 6
3 and 7
2 and 8
1 and 9
0 and 10