Summer Math Calendar
Entering Third Grade
Public Schools of Brookline

Get ready to discover math all around you this summer!

Just as students benefit from reading throughout the summer, they also benefit from engaging in regular and meaningful math activities. The Math Specialists of Brookline have created this summer math calendar to provide your child and your family with a variety of math activities to explore this summer.

Inside, you will find creative mathematics activities to try at home. The goal is for your child to have fun thinking and working collaboratively to communicate mathematical ideas. The activities reflect a range of difficulty with the intent that your child can choose the activities that are at a "just right" level. While working on these activities, ask your child **how** they found a solution or **why** they chose a particular strategy. We encourage you to approach them with curiosity and creativity.

This packet consists of 2 calendar pages (July and August) and an alternate summer math calendar that allows you to fill in your own activities. Each month's activities are organized into 28 "math boxes." You can choose which activities you and your child would like to complete on whichever day you want. We encourage your child to complete 20 boxes per month, coloring in each box as it is done. We recommend that you integrate an average of 15-20 minutes of math activities into your child's day, by completing these activities and reviewing basic facts. Return the signed calendars to your child's new teacher in September.

We hope that you enjoy the activities, extend them, create new ones, and **have fun!**

Public Schools of Brookline
K-8 Mathematics Department

Suggested Resources

Ways to Practice Math Facts (using dice, index cards, deck of cards):

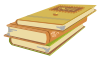
- ✓ Choose addition and subtraction math activities on websites (see list of websites)
- ✓ Addition and subtraction flashcards—identify a few facts to work on each time
- ✓ Addition and subtraction triangle flashcards
- ✓ Roll 2 dice and add or subtract
- ✓ Flip 2 cards and add or subtract

Games:

Close to 100* Rectangles* Pairs of 100* **Directions included*

Additional Games:

7ate9, Othello, Blink, 1-2-3 OY!, Zeus on the Loose



Books:

A Place for Zero	Angeline Sparagna LoPresti
Spaghetti and Meatballs for All	Marilyn Burns
The Cookie Fiasco	Mo Willems
Sir Cumference and All the Kings Tens: A Math Adventure	Cindy Neuschwander
One Hundred Hungry Ants	Elinor Pinczes
Math for All Seasons: Mind-Stretching Math Riddles	Greg Tang

Websites:

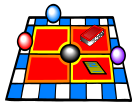
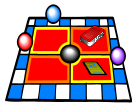
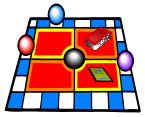
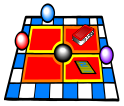
http://illuminations.nctm.org (Concentration, Patch Tool)
http://figurethis.nctm.org
https://www.youcubed.org/resource/youcubed-at-home/
http://nlvm.usu.edu
http://bedtimemath.org/category/daily-math/
https://talkingmathwithkids.com/_blog/
https://www.gamesforyoungminds.com/blog?category=Free%20Games
https://www.tinyurl.com/gamesinv3

Public Schools of Brookline

July

Entering Third Grade Math Calendar

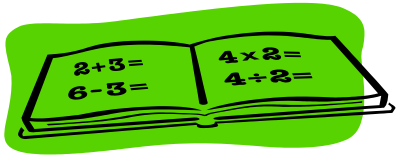
3rd

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Play Close to 100. (see directions) 	Practice your math facts. 	Look in your refrigerator. Categorize the items as dairy, fruit, vegetable, meat, grains, fats, or other. Make a tally chart.	How many more popsicles do I need to buy if I already have 18, and I want to have 26?	Practice telling time: www.harcourtschool.com/activity/telling_time_gr4 	How many cents do I have if I have 1 quarter, 2 dimes, 2 nickels and 3 pennies? Can you show that value with fewer coins?	Play Patch Tool: http://illuminations.nctm.org  Make a design with a line of symmetry.
Play Rectangles. (see directions) 	Play Concentration with Fractions: http://illuminations.nctm.org  Draw pictures that represent ½, ¾, ¼, $^2/_3$ and one whole.	How many times can you hop on your left foot in a minute? Your right foot? Compare the number of hops using the symbols <, >, or =. What's the difference?	Read a math book. 	Practice your math facts. 	Play a math game. 	I have 7 puppies, but I want 19. What do I have to do? I have 12 fleas, but I only want 5. What do I need to do?
Name five ways to make 30 cents. Draw the coins to show your thinking and write the number sentences.	Practice your math facts. 	Play Pairs of 100. (see directions) 	Look at an analog clock. What time is it? How many minutes until the next hour?	Read a math book. 	Write down ten numbers between 11-99. Subtract 10 from each number. Write the number sentences.	How many different ways can you cut a sandwich into fourths? Try it with real or paper sandwiches.
Read a math book. 	Play a math game. 	Today is Tuesday. What is today's date? What was the day and the date 2 days ago? What will tomorrow's day and date be? What day and date will it be in 1 week?	Play Diffy: http://nlvm.usu.edu Click on Number & Operations, then Diffy 	Practice your math facts. 	Fold a piece of paper in half 2 times. Open it. How many rectangles? Now, fold it in half 3 times. How many rectangles? 4 times? Can you find a pattern?	Write down ten numbers between 11-99. Add 10 to each number. Write the number sentences.

Did you know?
Frank Epperson invented the popsicle when he was 11. He sold them 18 years later. How old was he at that time?

Child's Name:_____

Parent's Signature: _____



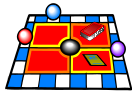
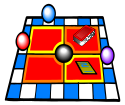
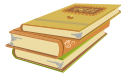
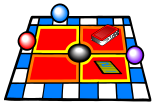
Created by the K-8 Math Department, Public Schools of Brookline, Revised Spring 2021

Public Schools of Brookline

August

Entering Third Grade Math Calendar

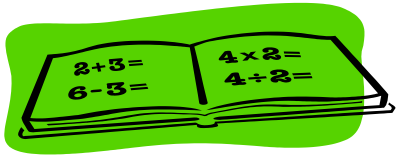
3rd

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Play Close to 100. (see directions) 	The 3 numbers in my fact family are 8, 7 and 15. What two addition and two subtraction number sentences can you make?	How tall are you? Measure your height with a tape measure (or a paperclip chain). How tall is an adult? Measure and compare the difference.	Write down ten numbers between 11-99. Subtract 10 from each number. Write the number sentences.	Set the table for dinner. How many utensils will you need for 6 plates? 8 plates? Describe the pattern. Estimate 10 plates without counting.	Practice your math facts. 	Play Let's Compare: www.harcourtschool.com/activity/lets_compare 
Play a math game. 	Play Patch Tool: http://illuminations.nctm.org 	Practice your math facts. 	Read a math book. 	Play Diffy: http://nlvm.usu.edu/ (click on Diffy) 	Play a math game. 	Practice your math facts. 
Play Rectangles. (see directions) 	Look at an analog clock. What time is it? How many minutes until the next hour?	I am thinking of an odd number. It is greater than 33 and less than 40. You say it when you skip count by 5's. What number am I?	A 3rd grader needs about 10 hours of sleep at night. If Kelly has been sleeping for 7 ½ hours, how many more hours of sleep does she need?	Read a math book. 	In California, it is 3 hours earlier than it is in Boston. What time will it be in California when you eat lunch in Boston? How about when you go to sleep?	What time is it now? Write down the time. What time will it be in 30 minutes? What time was it 60 minutes ago?
Read a math book. 	Play 10 questions. One person thinks of a number between 1 and 100. The other person asks 10 yes or no questions to guess the number. (ex: Is it odd? Is it >50?)	Think of a special day you are looking forward to. How many days until that special day? How many weeks?	Play Deep Sea Duel: (9 card) Choose your level. http://illuminations.nctm.org 	How much do I have if I have 3 quarters, 2 dimes, 1 nickel and 2 pennies? Can you show that value with fewer coins?	Write down ten numbers between 11-99. Add 10 to each number. Write the number sentences.	Play Pairs of 100. (see directions) 

Did you know?
The highest temperature recorded in the California desert was 134 degrees Fahrenheit. The highest temperature ever at the South Pole was 10 degrees Fahrenheit. What is the difference?

Child's Name:_____

Parent's Signature: _____



Created by the K-8 Math Department, Public Schools of Brookline, Revised Spring 2021

Alternate Summer Math Calendar

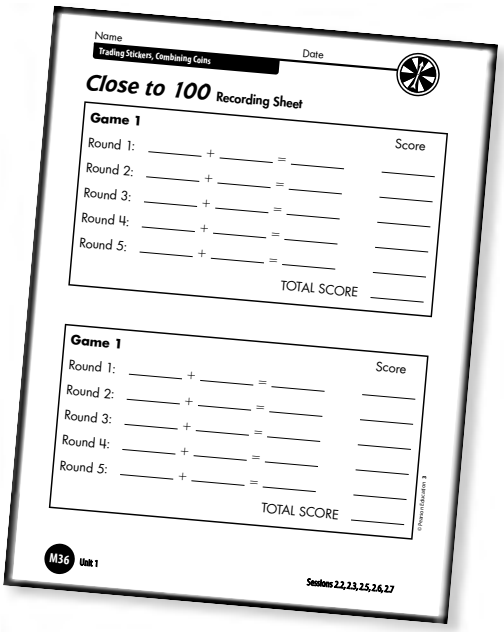
Entering Grade _____

If you would prefer to substitute your own math activities for those suggested in the enclosed calendars, please document your created activities below. Remember: the goal is to complete 20 activities each month, so you may need to print this sheet twice!

Activity #	Date Completed	Description of Math Activity
1		
2		
3		
4		
5		
6		
7		
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		

Student's Name:_____ Parent Signature:_____

Close to 100


Name Date
Trading Stickers, Combining Coins
Close to 100 Recording Sheet
Game 1
Round 1: ____ + ____ = ____ Score
Round 2: ____ + ____ = ____
Round 3: ____ + ____ = ____
Round 4: ____ + ____ = ____
Round 5: ____ + ____ = ____
TOTAL SCORE
Game 1
Round 1: ____ + ____ = ____ Score
Round 2: ____ + ____ = ____
Round 3: ____ + ____ = ____
Round 4: ____ + ____ = ____
Round 5: ____ + ____ = ____
TOTAL SCORE
M36 Unit 1
Sessions 2.2, 2.3, 2.5, 2.6, 2.7

You need

- Digit Cards (deck of 44)
- *Close to 100* Recording Sheet for each player

Play alone, with a partner, or in a small group.

1. Deal out six Digit Cards to each player.
2. Use any four cards to make two numbers; for example, 6 and 5 could make either 56 or 65. Wild cards can be used as any numeral. Try to make numbers that, when added, give you a total that is close to 100.
3. Write these two numbers and their total on the *Close to 100* Recording Sheet; for example, 42 + 56 = 98.
4. Find your score. Your score is the difference between your total and 100. For example, if your total is 98, your score is 2. If your total is 105, your score is 5.
5. Put the cards you used in a discard pile. Keep the two cards you did not use for the next round.
6. For the next round, deal four new cards to each player. Make more numbers that come close to 100. When you run out of cards, shuffle the discard pile and use those cards again.
7. Five rounds make one game. Total your scores for the five rounds. The player with the LOWEST score wins.

Close to 100 Recording Sheet

Game 1	**Score**
Round 1: ____ ____ + ____ ____ =	____ ____
Round 2: ____ ____ + ____ ____ =	____ ____
Round 3: ____ ____ + ____ ____ =	____ ____
Round 4: ____ ____ + ____ ____ =	____ ____
Round 5: ____ ____ + ____ ____ =	____ ____
TOTAL SCORE	____ ____

Game 2	**Score**
Round 1: ____ ____ + ____ ____ =	____ ____
Round 2: ____ ____ + ____ ____ =	____ ____
Round 3: ____ ____ + ____ ____ =	____ ____
Round 4: ____ ____ + ____ ____ =	____ ____
Round 5: ____ ____ + ____ ____ =	____ ____
TOTAL SCORE	____ ____

Rectangles

Basic Game:

Object: Players roll dice to determine the length and width (and/or area) of a rectangle. They then place that rectangle (if possible) on a grid. The player with the largest area of their grid filled at the end of the game is the winner.

Number of Players: 2 – 5

Materials: Dice, one colored pencil for each player, one grid for each player.

Playing:
1. Players take turns. During a turn, a player rolls the dice and constructs a rectangle with the length and width rolled. The player then colors in the rectangle and calculates his/her score by finding its area.
2. The rules for placing rectangles are as follows: All rectangles must be placed entirely within the grid area; the edges of rectangles may touch but do not have to; rectangles may <u>not</u> overlap each other; and no rectangle may be placed within another rectangle.
3. Players drop out of the game and calculate their total score when their throw of the dice gives them a rectangle that will not fit on their grid. The last player to place a rectangle on his or her grid gets a 10 point bonus. The game ends when all players have dropped out.

Modification: 2 players can play on one grid, competing for the available space.

Rectangles

Pairs of 100

Materials: Pairs of 100 Recording Sheet
Numeral Cards from 0 – 9

Players: 2
Object: To find pairs of numbers with a sum of 100.

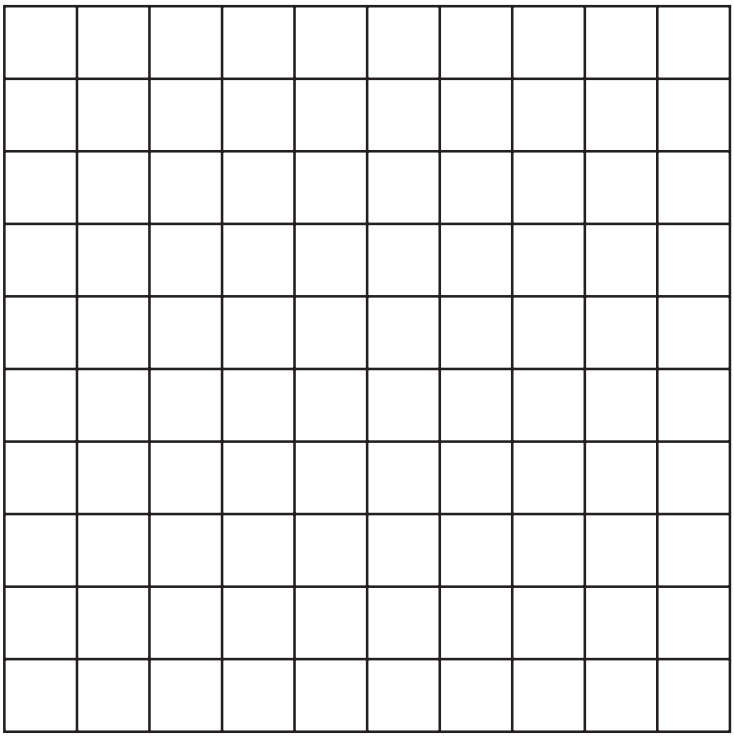
Note*: To play the game more than once, make multiple copies of the recording sheet before using it. Alternately, put the recording sheet in a clear sheet protector, use a dry erase marker and the sheet can be reused.*

How to Play:

1. Mix the cards and place them face down.
2. One player picks a card to be the tens digit of a number. The other picks a card to be the ones digit. Record the number on the recording sheet under **Number We Picked**. Return the cards to the pile.
3. One player colors in the squares on the 10 x 10 grid to represent the number picked, using rows of 10 and ones as needed.
4. The other player determines how many squares are not colored in, and records the number in the row **Number Needed to Make 100**.
5. Players switch roles for each round. Players can challenge themselves to find the second number without using the 100 grid.

Name _____ Date _____ **Activity Master 78**

Pairs of 100



Number We Picked					
Number Needed to Make 100					

Number We Picked					
Number Needed to Make 100					