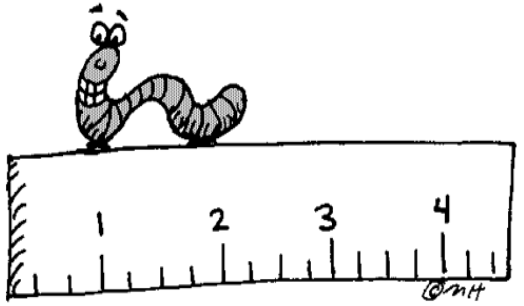
Summer Math Calendar
Second Grade



Get ready to discover math all around you this summer! Just as teachers encourage students to continue reading throughout the summer to solidify and retain reading skills, we feel the same attention should be given to mathematics. Regular practice over the summer with problem solving, computation, and math facts will maintain and strengthen math gains made over the school year. 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'll find creative activities that include measuring and counting everyday objects, math games, riddles, basic facts practice, math web sites and math literature books (available through Brookline's public libraries). The goal is for your child to have fun thinking and working collaboratively with you while communicating his/her mathematical ideas. While you are working on these activities, ask your child **how** he found that solution or **why** she chose that strategy. These activities help reinforce the concepts/skills your child learned this past year so that s/he can retain them over the summer.

This packet consists of 2 calendar pages, one for July and one for August, an alternate summer math calendar as well as directions for math games to be played at home. (Note: a substitute for numeral cards can be a regular deck of cards without the face cards or Uno cards.) Each month's activities are organized into 28 "math boxes." ***You can choose which activities you'd like to complete on which day***. We encourage your child to complete 20 math boxes each month. After completing a box, color it in. In September return the calendar, with your signature, to your child's new teacher.

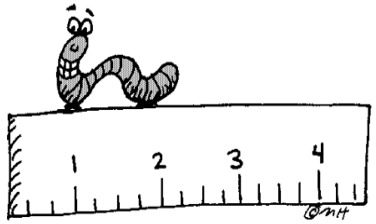
We recommend that you integrate an average of 15-20 minutes of math activities into your child's day, including completing the enclosed activities *and* reviewing basic facts. Number facts can be practiced and reinforced through repeated use in games, real-life problems, songs, rhymes, and cards. Help your child to identify "FACTS I KNOW" and the "FACTS I AM WORKING ON." Think of regular and convenient times to review these facts, such as waiting in line, driving in a car, riding the train, reading time, etc.

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

Public Schools of Brookline
K-8 Mathematics Department

We welcome your feedback on the calendar (tara_washburn@brookline.k12.ma.us).

July
Second Grade Calendar
Brookline



Directions: Complete **any** 20 math boxes and color in the box after you complete it. Return the Math Calendar to school in the fall.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Blow a marble, a bottle cap, and a pencil across a table or the floor. Measure how far they go. Which goes the farthest? By how much?	0+1 1+1 2+1 3+1 4+1 to 19+1 What patterns do you see? Why?	Count backwards from 30 to 0. Count backwards by 10s from 80 to 0. Count backwards by 5s from 40 to 0.	Make a quart of lemonade. How many cups of water do you need? How many tablespoons of mix do you need to make it sweet enough?	0+0 1+0 2+0 3+0 4+0 to 20+0 What patterns do you see? Why are they happening?	Read •***Anno's Magic Seeds*** by Anno Mitsumasa. How many seeds will Jack have at the end of one year if he buried 7 seeds?	Jump 3 times: once like a bunny, once like a frog, and once like a child. Measure each jump. Which was the longest? Shortest? What is the difference?
How many books do you have? First, make an estimate. Then count them. How close was your estimate?	Play a game. **Double Compare** (see directions)	Sort the laundry into categories (by owner, by size, by color, by item type). What do you observe about the piles?	Play ***Concentration*** on the web* with numbers 1-6. Record your matches.	What number comes after 16? What number comes before 30? What numbers come before and after 57?	Play a game. **Tens Go Fish** (see directions)	Get a pile of coins. Show all the ways to make 15 cents. How do you know you have them all?
Play ***Patch Tool*** on the web.* Choose 2 shapes. Make a pattern. Describe the pattern.	Estimate how many pieces of cereal are in ¼ cup. Count the pieces. Now estimate how many ¼ cups fill in your cereal bowl. Check.	Read •***Ten Black Dots*** by Donald Crews. Name different objects that come in groups of 1, 2, 3, etc. Make your own book.	Read •***When a Line Bends …A Shape Begins*** by Rhonda G. Greene. How are a square and rectangle alike? How are they different?	6+6 7+7 8+8 9+9 10+10 What clues help you?	How long does the traffic light stay green? Red? How could you measure this? How much longer is 1 light than the other?	I have a machine that adds 5 to every number I put in. If I put in 4, what comes out? If I put in 16, what comes out?
Play a game. **Connect Four** or **Dominoes**	Count by 2s to 50 starting at 12. Count by 10s to 64, starting at 4. What did you notice about the numbers you say?	7+7 7+8 8+8 8+9 9+9 9+10 What clues help you solve these problems?	I am 7 years old and my sister is 11. Who is younger? How much younger? I have 16 stickers and my sister has 9. Who has more? How many more?	Ask someone at home to time how long you can hop on your right foot, then your left. Which foot could you hop on longer? How much longer?	Play ***Bobbie Bear*** on the web.* ***Choose: Customize*** How many outfits can you make with 2 shirts and 2 pants?	5+5 4+6 3+7 2+8 1+9 10+0 What clues help you?

* Website Directions: Go to: **illuminations.nctm.org** Click on **ACTIVITIES.** Click on **K-2** and press **SEARCH**.

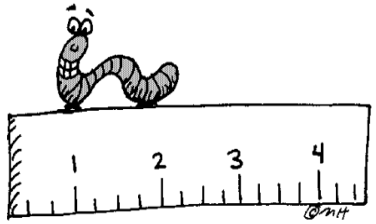
grade 1.July calendar.07

• Book is available through Brookline's public libraries or Minuteman library network (▼)

Parent's Signature: _____ Child's Name: _____

Created by the Math Department, Public Schools of Brookline, 2007

August
Second Grade Calendar
Brookline



Directions: Complete **any** 20 math boxes and color in the box after you complete it. Return the Math Calendar to school in the fall.

Sunday	Monday	Tuesday	Wednesday	Thursday	Friday	Saturday
Play a game. **Double Compare** (see directions)	10-0 10-1 10-2 10-3 10-4 10-5 What patterns do you see? Why?	Make a calendar for this week. Record the temperature each day. At the end of the week, compare your weather with the weather in Phoenix. What do you notice?	A small pack of gum has 5 pieces. How many pieces of gum are in 3 packs? What about in 5 packs? In 7 packs?	Make a 3-D shape using mini marshmallows and toothpicks. How many corners does your shape have? How many edges?	The three numbers in my fact family are 7, 3 and 10. What are the 2 addition and 2 subtraction number sentences you can make using these numbers?	Play ***Bobbie Bear*** on the web.* ***Choose: Customize*** How many outfits can you make with 3 shirts and 3 pants?
Roll 2 dice together and add to find the sum. Record the sum. Do this 20 times. What sum did you get the most often? Why?	Play ***Ten Frame*** on the web.* Games: *Fill a Frame* Record all the number sentences with a sum of ten.	10+9 10+7 10+5 10+8 10+6 What pattern do you hear?	Read •***Ten Red Apples*** by Pat Hutchins. What's the pattern? Write down the number equations for each page.	Make a list of 2D and 3D shapes. Go on a scavenger hunt to look for those shapes. Bring your list and check off the shapes you find.	Play a game. **Connect Four** or **Dominoes**	Listen to the whole string of numbers before answering: I had 4 shells. I got 2 more. I got 3 more. I lost 2. How many do I have?
6+3 7+3 8+3 9+3 10+3 11+3 What clues help you?	Create a repeating pattern with shapes, like # # * # # *. Ask a friend what the 9th shape would be? the 10th? Have a friend make up a new pattern.	Play a game. **Tens Go Fish** (see directions)	Tell an adult an addition story problem to go with 4 +8. Now tell a subtraction story problem for 12 – 4.	Read •***Quack and Count*** by Keith Baker. Name all the combinations to make 7. Complete this: __ + __ + __ = 7	17-10 16-10 15-10 14-10 13-10 12-10 What clues help you?	Line up 3 different figures or animals. Record the order. Now change the order. How many different ways can you line them up?
Read •***Seven Blind Mice*** by Ed Young. Draw & color the 7 mice in a line in the order they approach the Something. Which mouse was 4th?	Hiding game Get 7 pennies. Put some in 1 hand and some in the other hand. Show 1 hand and have the adult figure out what's hiding. Switch roles. Play 10x.	Estimate the length of string you'd need to fit around a ball. Without measuring, cut the string that you think will work. Test your prediction. What did you notice?	Play ***Concentration*** on the web* with *numbers 1-10*. Record your matches by writing the digits with the words or pictures that match.	Make a tally chart of the number of fruits and vegetables you ate today at your meals and for snacks. Did you eat 5 servings? Try again tomorrow.	If I see 8 people, how many eyes can I see? If there are 30 toes under the table, how many people are sitting at the table?	Cut out grocery coupons that your family might use. Sort these coupons into different categories. What category has the most? The least?

* Website Directions: Go to: **illuminations.nctm.org** Click on **ACTIVITIES.** Click on **K-2** and press **SEARCH**.

grade 1.August calendar.07

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Parent's Signature: _____ Child's Name: _____

Created by the Math Department, Public Schools of Brookline, 2007

Double Compare Instructions

Materials: Deck of Number Cards

Players: 2

Object: Decide which of two sums is greater.

Note to families:
In this game, your child will be finding the totals of pairs of numbers. You will need a set of Number Cards to play this game.

How to Play

1. Mix the cards and deal them evenly to each player. Place your stack of cards face down in front of you.
2. At the same time, both of you turn over the top two cards in your stack. Compare your cards to your partners to determine which sum is more. If your total is more than the other player's, say "Me!" If the two totals are the same, turn over the next two cards and compare these sums.

   Sometimes you may be able to decide which pair is more without actually figuring out the total.
3. Keep turning over two cards. Say "Me!" each time your total is more.
4. The game is over when you have both turned over all the cards in your stack.

Variations

- Remove the 7-10 cards from the deck, and play with just the 0-6 cards.
- Play Compare. Players turn over one card on a turn. The player with the larger number says "Me!"
- Add the four wild cards to the deck. A wild card may be used as any number. Challenge students to use it for the lowest number that will allow them to win.
- Play Triple Compare. Players turn over three cards on a turn. The player with the larger total says "Me!"

Tens Go Fish

You need

- deck of Primary Number Cards (without Wild Cards)
- sheet of paper

Play with a partner.

1. Each player is dealt 5 cards from the Primary Number Card deck.
2. Each player looks for pairs from his or her cards that make 10. Players put down the pairs of cards that make 10, and they draw new cards to replace them from the Primary Number Card deck.
3. Players take turns asking each other for a card that will make 10 with a card in their own hands.

   If a player gets the card, he or she puts the pair down and picks a new card from the deck.

   If a player does not get the card, the player must "Go fish" and pick a new card from the deck.

   If the new card from the deck makes 10 with a card in the player's hand, he or she puts the pair of cards down and takes another card.

   If a player runs out of cards, the player picks two new cards.

   A player's turn is over when no more pairs can be made that make 10.
4. The game is over when there are no more cards.
5. At the end of the game, players record their combinations of 10.

Alternate Summer Math Calendar for Grade _____

If the activities suggested don't seem to "fit" your child, or if you have your own websites/literature/math practice you'd like to do, you can create-your-own math calendar. Feel free to substitute your own activities in this Alternate Summer Math Calendar or mix-and-match some of the grade-level activities with some other activities that better suit your needs or learning style. All we ask is that you document your created activities below. Remember: the goal is to complete 20 activities each month (so you may need an extra recording sheet).

No.	Date Completed	Description of Math Activity
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15		
16		
17		
18		
19		
20		

Child's name: _____ Parent signature: _____

Remember, we welcome your feedback! Send your thoughts/suggestions to: tara_washburn@brookline.k12.ma.us