

Dear Brockton families,

This summer, students can participate in a fun and engaging 10-weeks of Summer Math in two different ways! Both options will ensure that students have practice with resources to continue their learning over the summer. As you know, we have been using ST Math as part of our math curriculum. ST Math's unique, patented approach provides students with equitable access to learning through challenging puzzles, non-routine problem solving, and informative feedback.

Option 1: Play ST on a Device

Students continue to have access to ST Math over the summer. Students can play ST Math fairly independently – whenever it works best for your schedule! You can support your student's learning this summer with ST Math by encouraging your student to do 15-minute daily sessions. A student tracker is included in this packet.

Option 2: Unplugged Version

An additional option is for your child to do Jiji's Summer of Math- Unplugged Version. See the attached pages for details. This version also includes a student tracker.

Students who complete either or both trackers can pass them into their teacher in the fall.

Need support? The ST Math team is here to help! Email massprogram@mindresearch.org with questions.

Thank you for continuing your child's learning from home this summer!

Sincerely,

Kate Gearon
Coordinator of Math and Science K-5



JiJi Summer of Math -- UNPLUGGED VERSION

Unplugged Summer Calendar of Events

Check out the math card game for each week over the summer. Play with a friend or family member and record your sessions on the tracker in the back. All you need is a deck of cards. Instructions for each game are below.

| | | | |
|---------------|-----------------------|----------------|--------------------|
| Week 1 | Place Value War | Week 6 | Hit the Target |
| Week 2 | I Spy | Week 7 | Subtraction Top-it |
| Week 3 | Sort It or Close Call | Week 8 | Give me 10 |
| Week 4 | Addition Top-it | Week 9 | Red or Black |
| Week 5 | Make it BIG | Week 10 | Make 10 Go Fish |



Place Value War

Players: 2

Materials: Deck of cards with face cards and 10s removed, Ace worth 1

How to Play: Turn over 1, 2 or 3 cards (depending on the level of difficulty needed). Each player places them in any position to make the highest number possible. The higher number wins all of the cards for that turn. Try asking your child to compare the numbers out loud. Example: "365 is greater than 243" When the deck runs out, the player with the most cards wins.

I Spy

Players: 2

Materials: Deck of cards, face cards worth 10, Ace worth 1 or 11

How to Play: Deal out the entire deck of cards in a 13 x 4 array (13 rows and 4 columns). Find two cards next to each other, vertically or horizontally, that add to make a number. "I spy two cards with a sum of 10". You can also play the game with multiplication, "I spy two cards with a product of 40". The other player looks for two cards that multiply to make the sum or product and removes them. After many turns, the array can be reformed to continue play.

Sort It

Players: 2

Materials: Deck of cards

How to Play: Pick a way to sort the cards (color, suit, or numbers). Deal out the deck and players take turns finding cards that fit their sort. Look for creative ways to sort; even numbers, odd numbers, two cards with a sum of 10, etc.

Close Call

Players: 2

Materials: Deck of cards, face cards worth 10, Ace worth 1

How to Play: Each player is dealt four cards. The player arranges their four cards in any combination to make an addition problem whose sum is as close to 100 as possible without going over 100. The winner of the round is the person with the sum closest to 100.

Variation: Using four cards, make a subtraction problem from 100, with the winner of the round being the closest to zero.

Addition Top-It

Players: 2

Materials: Deck of cards, face cards worth 10, Ace worth 1 or 11

How to Play: Each player turns over two cards and adds them together. The player with the greatest sum wins all the cards. Continue until all the cards are gone. The player with the most cards wins.

Modifications: Make the game easier by taking higher digit cards out of the deck.

Challenge: Make the game harder by adding 3 cards or multiplying the cards instead.

Make It BIG

Players: 2

Materials: Deck of cards with the 10s removed, Ace worth 1, scratch paper.

How to Play: On a piece of scratch paper, draw a game board with five number slots and one trash can slot like the one shown:



Deal 6 cards to each player. Each player flips over one card at a time and decides where to place it to form the largest number possible. Players must think carefully about where to place a card. Once placed, a card cannot be moved. All 6 cards must have a place! Try to create the largest number possible. The player with the largest number wins that round.

Hit the Target

Players: 2

Materials: Deck of cards, face cards worth 10, Ace worth 1 or 11.

How to Play: Lay out five cards face up. Then choose one additional card to be the target number. You may add, subtract, multiply or divide to hit the target number. Try to use all five cards, but you must use at least 2 cards. The player that uses the most cards wins the round. The winner takes the

cards in the equation, plus the target number.

Subtraction Top-It

Players: 2

Materials: Deck of cards, face cards worth 10, Ace worth 1 or 11

How to Play: Each player turns over two cards and subtracts the smaller digit from the larger digit. The player with the smallest difference wins all the cards. Continue until all the cards are gone. The player with the most cards wins.

Modifications: Make the game easier by taking higher digit cards out of the deck.

Challenge: Make the game harder by playing with 2-digit - 1-digit subtraction or by using division to get the smallest quotient.

Give Me 10

Players: 2

Materials: Deck of cards, face cards removed, Ace worth 1

How to Play: Deal 10 cards face up. Players take turns finding and removing combinations of cards that add up to 10. Deal out cards so there are always 10 cards face up. To make it challenging, find three cards that add up to a target number (3 numbers that add up to 20).

Red or Black

Players: 2

Materials: Deck of cards, face cards worth 10, Ace worth 1, scratch paper, and pencil

How to Play: Split the deck evenly between players. Play begins with each player's deck stacked face down and a beginning score of 10 written at the top of their paper. Each player flips their top card. If it is a red card the number is added to the player's score, if it is a black card the number is subtracted from the score. The player writes the equation and new total score on their paper and draws another card. Play continues in this manner for 20 rounds. The winner of the game is the person with the highest score at the end of the game.

Challenge: If the flipped over card is red, multiply the number by 10 for the player's new score. If the card is black, divide 10 by the number on the black card.

Make 10 Go Fish

Players: 2-5

Materials: Deck of cards, face cards removed, Ace worth one.

How to Play: Deal 5 cards to each player and leave the remaining cards stacked face down. The goal of the game is to collect pairs of cards with a sum of 10. Any pairs of cards with a total sum of 10 that a player holds from the initial deal can be placed on the table. The first player then asks any other player for a card that will make a sum of 10 when added to a card already in that player's hand. The player being asked must hand over the card being requested if he/she has one. The first player has now created a Make 10 pair and removes those two cards from his/her hand and places them on the table. If the player being asked does not hold the card being requested, the player says, "Go fish." In this instance, the first player must then draw a card from the center stack. If the card drawn creates a Make 10 pair, the pair of cards can be placed on the table. Play moves clockwise around the table to

the next player who can then request a card from any other player. Play continues until either someone has no cards left in their hand or the draw pile runs out. The winner is the player who has created the most Make 10 pairs.

JiJi Summer of Math *Unplugged Version*

Game Record Sheet (unplugged) Name: _____

- Play each game each with and record your number of sessions & minutes
- At the end of the week record your rating of the game -- what did you think of it? How many stars would give it?
- Complete the tracker & turn it into your teacher next year!

| | | |
|---|--|--|
| <p style="text-align: center;">Week 1 Place Value War</p> <p># of sessions: ____ # of minutes: ____</p> <p>Your game rating:</p>  | <p style="text-align: center;">Week 2 I Spy</p> <p># of sessions: ____ # of minutes: ____</p> <p>Your game rating:</p>  | <p style="text-align: center;">Week 3 Sort It or Close Call</p> <p># of sessions: ____ # of minutes: ____</p> <p>Your game rating:</p>  |
| <p style="text-align: center;">Week 4 Addition Top-it</p> <p># of sessions: ____ # of minutes: ____</p> <p>Your game rating:</p>  | <p style="text-align: center;">Week 5 Make it BIG</p> <p># of sessions: ____ # of minutes: ____</p> <p>Your game rating:</p>  | <p style="text-align: center;">Week 6 Hit the Target</p> <p># of sessions: ____ # of minutes: ____</p> <p>Your game rating:</p>  |
| <p style="text-align: center;">Week 7 Subtraction Top-it</p> <p># of sessions: ____ # of minutes: ____</p> <p>Your game rating:</p>  | <p style="text-align: center;">Week 8 Give me 10</p> <p># of sessions: ____ # of minutes: ____</p> <p>Your game rating:</p>  | <p style="text-align: center;">Week 9 Red or Black</p> <p># of sessions: ____ # of minutes: ____</p> <p>Your game rating:</p>  |
| <p style="text-align: center;">Week 10 Make 10 Go Fish</p> <p># of sessions: ____ # of minutes: ____</p> <p>Your game rating:</p>  | <p>Reflection questions</p> <ul style="list-style-type: none"> ● What game did you like the best? Why? ● Which one was the easiest? ● What math did the games help you with? ● Can you think of your own math card game? <div style="text-align: right;">  </div> <p style="text-align: right; font-size: 2em; font-weight: bold;">WAY TO GO!!</p> | |



Jiji's Summer Club

Name: _____

Grade in 2024-25: _____

My big goal for the summer is: _____

- Remember, try to play **20 minutes a day** playing ST Math.
- At the end of the week, record the total number of minutes played and puzzles completed on this tracker.
- Complete the tracker & turn it next year.

Week 1
My goal:

of Minutes: ____

of Puzzles: ____

| | | | | |
|---|---|---|--|--|
| <p>Week 2 My goal:</p> <p># of Minutes: ____</p> <p># of Puzzles: ____</p> | <p>Week 3 My goal:</p> <p># of Minutes: ____</p> <p># of Puzzles: ____</p> | <p>Week 4 My goal:</p> <p># of Minutes: ____</p> <p># of Puzzles: ____</p> | <p>Week 5 My goal:</p> <p># of Minutes: ____</p> <p># of Puzzles: ____</p> | <p>Week 6 My goal:</p> <p># of Minutes: ____</p> <p># of Puzzles: ____</p> |
| <p>Week 7 My goal:</p> <p># of Minutes: ____</p> <p># of Puzzles: ____</p> | <p>Week 8 My goal:</p> <p># of Minutes: ____</p> <p># of Puzzles: ____</p> | <p>Week 9 My goal:</p> <p># of Minutes: ____</p> <p># of Puzzles: ____</p> | <p>Week 10 My goal:</p> <p># of Minutes: ____</p> <p># of Puzzles: ____</p> | <p>Week 11 My goal:</p> <p># of Minutes: ____</p> <p># of Puzzles: ____</p> |