Dear Parents & Rising 5th Grade Students,
The National Summer Learning Association (NSLA) states that most students lose approximately two months of grade level equivalency in mathematical computation skills over the summer months. In order to help bridge the gap between June and August, the Brookstone intermediate school requires students to participate in the intermediate school summer math project.

**This project has three components:**

1. **A Commitment To Spend One Night Per Week As A Family Game Night**
   Game playing is a perfect way to reinforce and extend the skills children are learning at school. Not only are games fun, but the potential for learning and reasoning about mathematics is evident in any game you play. Games require a variety of problem-solving skills such as making and testing hypotheses, creating strategies (thinking and planning ahead), and organizing information. Plus, as children play, they further their development of hand-eye coordination, concentration levels, visual discrimination, memory, and their ability to communicate and use mathematical language.

2. **A Commitment To Spend At Least 30 Minutes A Week Building Fact Fluency Playing Math Games**
   In this packet, you’ll find many ideas for fun math games with dice, playing cards, etc., that help to build your child’s fact fluency in fun and engaging ways. As your child moves to the fifth grade, it is essential for him/her to show automaticity in basic math fact recall. Automaticity is when one can recall facts quickly without errors and without much conscious attention. As students learn basic math facts, they first learn facts to a level of accuracy. Next, with continued practice, they develop fluency. Finally, after fluency, if students keep practicing they begin develop automaticity. The transition to fifth grade involves working with larger numbers, and a lack of automaticity in basic math facts significantly hinders a child’s progress with problem solving and other higher-order math concepts that are introduced in our fourth and fifth grade math curriculums.

3. **Completion Of The Rising Fifth Grade Math Packet (Optional)**
   The problems in this packet have been chosen to reinforce math concepts and skills that were to be mastered in the fourth grade. Completing this packet will better prepare your child for the transition to fifth grade math. Students should not try to complete the packet in one day. Instead, student should work through the packet in weekly increments. The packet is set up this way in order to provide a pacing guide for completion. If there are problems a child doesn’t understand, please have them make their best attempt. The parent can make a note next to the problem.
   **This packet is optional and can be turned in to Ms. Pease the first week of school.**

4. **Mathodology Workbooks (Optional)**
   Sara Schaefer offers summer tutorials. They can be downloaded here: [https://mathodology.com/student-learning-guides/](https://mathodology.com/student-learning-guides/)
   **If you download these, be sure to download materials for the grade-level your child just completed.**
**Family Game Night**

Game playing is a perfect way to reinforce and extend the skills children are learning at school. Not only are games fun, but the potential for learning and reasoning about mathematics is evident in any game you play. Games require a variety of problem-solving skills such as making and testing hypotheses, creating strategies (thinking and planning ahead), and organizing information. Plus, as children play, they further their development of hand-eye coordination, concentration levels, visual discrimination, memory, and their ability to communicate and use mathematical language.

Some examples of games you could play...Games do not have to come from this list!

<table>
<thead>
<tr>
<th>CARDS/DICE</th>
<th>BOARD GAMES</th>
<th>OTHER</th>
</tr>
</thead>
<tbody>
<tr>
<td>War</td>
<td>Chutes and Ladders</td>
<td>Bingo</td>
</tr>
<tr>
<td>Go Fish</td>
<td>Candy Land</td>
<td>Ping-Pong</td>
</tr>
<tr>
<td>Yahtzee!</td>
<td>Hi-Ho Cherry-O</td>
<td>I Spy!</td>
</tr>
<tr>
<td>Uno</td>
<td>Sorry!</td>
<td>Dominoes</td>
</tr>
<tr>
<td>Crazy Eights</td>
<td>Trouble</td>
<td>Tic-Tac-Toe</td>
</tr>
<tr>
<td>Memory/Concentration</td>
<td>Monopoly/Monopoly, Jr.</td>
<td>Horseshoes</td>
</tr>
<tr>
<td>PIG/Spoons</td>
<td>Clue/Clue, Jr.</td>
<td>Cornhole</td>
</tr>
<tr>
<td>Slap Jack!</td>
<td>Connect Four</td>
<td>Pool</td>
</tr>
<tr>
<td>Farkle</td>
<td>Battleship</td>
<td>Hangman</td>
</tr>
<tr>
<td>Shut the Box!</td>
<td>Zingo</td>
<td>Tennis</td>
</tr>
<tr>
<td>Sequence</td>
<td>Qwirkle!</td>
<td>Golf</td>
</tr>
<tr>
<td>Solitaire</td>
<td>Checkers</td>
<td>Basketball</td>
</tr>
<tr>
<td>Spot it!</td>
<td>Scrabble/Bananagrams</td>
<td>Putt-Putt</td>
</tr>
<tr>
<td>Bunco or Left, Right, Center</td>
<td>Rummikub</td>
<td>Soccer</td>
</tr>
</tbody>
</table>
Websites:

https://www.coolmathgames.com/0-make-24

https://gregtangmath.com/games

https://www.mathplayground.com

https://www.thespruce.com/try-these-easy-card-games-for-kids-1696142

Easy Card Games

Dice Games

Dice and Card Games

https://xtramath.org/#/home/index
<table>
<thead>
<tr>
<th>Day</th>
<th>Activity</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>List all the factors of 24:</td>
</tr>
<tr>
<td></td>
<td>List all the factors of 36:</td>
</tr>
<tr>
<td></td>
<td>List the common factors of 24 &amp; 36:</td>
</tr>
<tr>
<td></td>
<td>Circle the greatest common factor (GCF) of 24 &amp; 36.</td>
</tr>
<tr>
<td>Tuesday</td>
<td>Find a number that has the following factors:</td>
</tr>
<tr>
<td></td>
<td>1, 2, 4, and 8 _________</td>
</tr>
<tr>
<td></td>
<td>1, 2, 3, 4, 6, and 12 _________</td>
</tr>
<tr>
<td>Wednesday</td>
<td>List the first seven multiples of 9:</td>
</tr>
<tr>
<td></td>
<td>List the first seven multiples of 6:</td>
</tr>
<tr>
<td></td>
<td>List the common multiples of 9 &amp; 6:</td>
</tr>
<tr>
<td></td>
<td>Circle the least common multiple (LCM) of 9 &amp; 6.</td>
</tr>
<tr>
<td>Thursday</td>
<td>Use A Bar Model To Solve:</td>
</tr>
<tr>
<td></td>
<td>Lulie collected shells at the beach. She and 3 friends shared the shells equally. Each person</td>
</tr>
<tr>
<td></td>
<td>received 5 shells and there were 2 shells remaining. How many shells did Lulie find?</td>
</tr>
</tbody>
</table>
## Week Two
### June 1-4

<table>
<thead>
<tr>
<th>Monday</th>
<th>Show your strategy.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$23 \times 40 =$</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Tuesday</th>
<th>Describe your strategy.</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>$300 \times 90 =$</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Wednesday</th>
<th>Use A Bar Model To Solve:</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Factory A produces 326 sweaters in a day. Factory B produces 107 more sweaters a day than Factory A. How many sweaters does Factory B produce in a day? How many sweaters do the two factories sell in 68 days?</td>
</tr>
</tbody>
</table>

<p>| Thursday      | $721 \times 54 =$       |</p>
<table>
<thead>
<tr>
<th>Day</th>
<th>Activity</th>
</tr>
</thead>
</table>
| Monday    | Solve using branching.  
346 | 2 =  |
| Tuesday   | Divide. Describe the strategy you used to solve this problem.  
4900 | 7 =  |
| Wednesday | Use a bar model to solve:  
Mae spent $\frac{2}{3}$ of her money on shoes. She had $18 left.  
How much money did the shoes cost? |
| Thursday  | _____ is 10 more than 65, 637  
_____ is 100 less than 40,000  
_____ is 1000 more than 19,562  
_____ is 10 less than 7,218 |
## Week Four
### June 15-18

<table>
<thead>
<tr>
<th>Day</th>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Monday</strong></td>
<td>Use a bar model to solve. Mr. Cowser had a budget of $1500 to spend on a table and 6 chairs. The total price was $249 under his budget amount. The table cost 3 times as much as a chair. What was the price of the table?</td>
</tr>
<tr>
<td><strong>Tuesday</strong></td>
<td>There are 45 tennis balls. Coach Sparks wants to put 7 tennis balls in a bag. How many bags does Coach Sparks need?</td>
</tr>
<tr>
<td><strong>Wednesday</strong></td>
<td>Find the area of a rectangle with a length of 24 cm. and a width of 8 cm.</td>
</tr>
<tr>
<td><strong>Thursday</strong></td>
<td>Mrs. Flowers sews costumes for a school play. She takes an average of 86 minutes to sew each costume. How long would she take to sew 16 of these costumes?</td>
</tr>
</tbody>
</table>
### Monday
Write each answer in simplest form.

\[
\frac{2}{3} + \frac{2}{9} = \ 
\frac{8}{10} - \frac{1}{5}
\]

### Tuesday
Write each answer as a mixed number.

\[
4 + \frac{1}{4} = \ 
\frac{5}{8} + 2 =
\]

### Wednesday
Bo jogs \( \frac{1}{2} \) mile. Ford jogs \( \frac{1}{4} \) mile more than Bo.

Charles jogs \( \frac{3}{4} \) mile more than Ford.

How far does Charles jog?

### Thursday
Write each mixed number in simplest form.

\[
3 \frac{4}{8} = \ 
5 \frac{6}{9} =
\]

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Week Six
<table>
<thead>
<tr>
<th>Day</th>
<th>Task</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monday</td>
<td>Write the mixed number as an improper fraction.</td>
</tr>
</tbody>
</table>
|         | \[
|         | 2 \frac{3}{4} = \text{____fourths} \]
| Tuesday | Express the improper fraction as a whole number or a mixed number in simplest form. |
|         | \[
|         | \frac{15}{6} = \]
|         | Express the improper fraction as a whole number or a mixed number in simplest form. |
|         | \[
|         | \frac{35}{8} = \]
| Wednesday| Express the answer as a mixed number in simplest form.                |
|         | \[
|         | 3 - \frac{5}{6} - \frac{1}{3} = \]
| Thursday| Celebrate The Fourth Of July Holiday Weekend                          |
|         | Watching Fireworks With Friends & Family!!                           |
**Monday**  
What is…

\[
\frac{2}{3} \text{ of } 18
\]

(Remember: \( \frac{2}{3} \) of 18 = \( \frac{2}{3} \times 18 \))

**Tuesday**  
Coach Deedee had three waffles.  
She ate \( \frac{1}{6} \) of one waffle and \( \frac{2}{3} \) of another waffle.  
How many waffles were left?

**Wednesday**  
Write each of these as a decimal:

9 tenths = _____

9 ones and 3 tenths = _____

**Thursday**  
Write each fraction as a decimal:

\[
\frac{7}{10} = \quad 4 \frac{1}{10} =
\]
| Monday          | 3.4 = 3 ones and ____ tenths  
|                | 36.7 = ____ tens 6 ones and 7 tenths |
| Tuesday        | You can write 14.3 in expanded form as 10 + 4 + 0.3  
|                | Write the number below in expanded form:  
|                | 35.42 = _______ + _______ + _______ + _______ |
| Wednesday      | Write each of these as a decimal:  
|                | 9 hundredths = _________  
|                | 6 tenths 1 hundredth = _________ |
| Thursday       | In 0.38, the digit 8 is in the ________ place.  
|                | In 12.67, the digit in the tenth place is _________.  
|                | In 3.45, the value of the digit 5 is _________. |
### Monday

Write each fraction as a decimal.

\[
\frac{3}{100} = \_\_\_ \\
\frac{7}{10} = \_\_\_ 
\]

### Tuesday

Write each fraction as a decimal.

Hint: Make each denominator 10 or 100.

Example:

\[
\frac{1}{2} = \_\_\_ = 0.5 \\
\frac{7}{20} = \_\_\_ = \_\_\_ \]

### Wednesday

Write each mixed number as a decimal.

\[
3 \frac{5}{10} = \_\_\_ \\
6 \frac{43}{100} = \_\_\_ 
\]

### Thursday

Write each decimal as a fraction or mixed number in simplest form.

\[
0.3 = \_\_\_ \\
3.45 = \_\_\_ 
\]
### Monday

Write each sum as a decimal.

\[
0.8 + 0.2 = \underline{\hspace{2cm}} \\
22.9 + 7.2 = \underline{\hspace{2cm}}
\]

### Tuesday

Find the sum.

\[
$0.57 + $0.29 = $\underline{\hspace{2cm}}
\]

### Wednesday

Find the difference.

\[
20 - 14.56 = \underline{\hspace{2cm}}
\]

### Thursday

Use a bar model to solve.

Catherine collects rainwater to water her flowers. She has one bucket with 3.4 gallons and another with 1.85 gallons less. She uses both buckets to water the flowers. How many gallons of water does she use?

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**YOU ARE DONE. WAY TO GO!!!**

**PUT ON SOME SUNSCREEN, AND GO JUMP IN A POOL!**