

June 2017

Dear Parents:

Summer is a great time for children to relax and have fun. It is also a wonderful time for parents and children to spend time together reading and developing mathematical concepts in fun and engaging ways. We hope that you will find the enclosed activities and suggestions helpful in sharpening and maintaining mathematical skills over the summer.

On the reverse side of this letter are some ideas of **GAMES** you can do every day with your child. Most of the items on the list are commercial games. They are motivational and, with parent involvement, these games are an excellent way to get your child to communicate concepts while sharpening thinking skills. They also provide an opportunity for discussion and questions; encouraging your child to evaluate answers, draw conclusions and strengthen reasoning skills. Games are a low stress way to engage your child in math while developing necessary skills. You will also find a list of **WEBSITES** that can assist in practicing **BASIC FACTS**. Information regarding national and local grade-level basic fact expectations is also provided.

On the following page you will find a **SUMMER MATH CALENDAR**. For each day your child completes an activity, please initial at the bottom of the box. Activities can be completed in any order. Those students who return completed calendars in September will be included in Dr. Stellar's special raffle!

Have a wonderful summer!

Sincerely,



Jessica Kitchen

K-5 Math Specialist

Hingham Public Schools

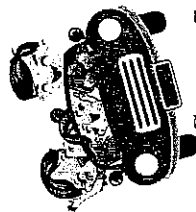
## GAMES

The following list of games, excerpted from *Games and Their Uses in Mathematics Learning* (Sharma, 2008), will help your child sharpen thinking skills, make inferences, draw conclusions, evaluate answers and strengthen reasoning. Beside each title are the skills and concepts that are reinforced.

<ul style="list-style-type: none"> <li>• <b>Simon or Mini Wizard</b> (sequencing, following multi-step directions, visual/auditory memory)</li> <li>• <b>Battleship</b> (spatial orientation, visualization, visual memory)</li> <li>• <b>Cribbage</b> (number relationships, patterns, visual clusters)</li> <li>• <b>Quarto</b> (spatial orientation/space organization, patterns, classification)</li> <li>• <b>Concentration</b> (visualization, pattern recognition, visual memory)</li> <li>• <b>Chinese Checkers</b> (patterns, spatial orientation/space organization)</li> <li>• <b>Pachisi</b> (sequencing, patterns, number relationships)</li> <li>• <b>Checkers</b> (sequencing, patterns, spatial orientation/space organization)</li> <li>• <b>Othello</b> (pattern recognition, spatial orientation, visual clustering, focus on more than one aspect, variable or concept of time)</li> </ul>	<ul style="list-style-type: none"> <li>• <b>Score Four or Connect Four</b> (pattern recognition, spatial orientation, visual clustering, geometric patterns)</li> <li>• <b>Krypto</b> (number sense, basic arithmetical facts)</li> <li>• <b>Kalah or Mankalah</b> (sequencing, counting, estimation, visual clustering)</li> <li>• <b>Master Mind</b> (sequencing, logical deduction, pattern recognition)</li> <li>• <b>Four Sight</b> (spatial orientation, pattern recognition, logical deduction)</li> <li>• <b>Black-Box</b> (logical deduction)</li> <li>• <b>Card Games</b> (visual clustering, pattern recognition, number facts)</li> <li>• <b>Dominos</b> (visual clustering, pattern recognition, number facts)</li> <li>• <b>Number War Games</b> (visual clustering, arithmetic facts, mathematics concepts)</li> </ul>
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## BASIC FACTS

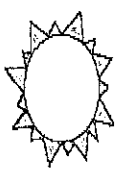

<h3>Websites</h3> <ul style="list-style-type: none"> <li>• <a href="http://www.xtramath.org">www.xtramath.org</a> (If your child does not remember their password, follow the steps on the website to register your child).</li> <li>• <a href="https://www.varsitytutors.com/aplusmath">https://www.varsitytutors.com/aplusmath</a></li> <li>• <a href="http://www.mathsisfun.com">http://www.mathsisfun.com</a></li> <li>• <a href="http://illuminations.nctm.org">http://illuminations.nctm.org</a></li> <li>• <a href="http://www.ixl.com">http://www.ixl.com</a></li> </ul>	<h3>End of Year Expectations</h3> <p><b>Kindergarten:</b> Fluently add and subtract within 5.</p> <p><b>1<sup>st</sup> Grade:</b> Fluently add and subtract within 10.</p> <p><b>2<sup>nd</sup> Grade:</b> Fluently add and subtract within 20.</p> <p><b>3<sup>rd</sup> Grade:</b> Fluently multiply all products up to 10×10 and related division facts.</p> <p><b>4<sup>th</sup> Grade:</b> Fluently multiply all products up to 12×12 and related division facts.</p> <p><b>5<sup>th</sup> Grade:</b> Keep practicing all fact fluency!</p>
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# Summer Math Road Trip – Entering Grade 5



Can you finish the math road trip by completing each of the following math activities? Activities do not need to be completed in order. Answers can be placed in the box or another piece of paper. Some activities do not require you to write down your answer. When the activity has been completed, a family member can place his/her initials at the bottom of the box.

<p>Make a set of flashcards of the multiplication facts with a family member. Practice your facts with a friend or family member. Don't forget to PRACTICE YOUR FACTS all summer long. (addition and subtraction, too)</p>	<p>Write a story problem for each one of the operations (+, -, *, ÷). Then solve each problem. Share these with a family member.</p>	<p>If you dance <math>\frac{3}{7}</math> of the days in each week, how many days would you dance in 19 weeks?</p>	<p>Jackie has 567 stamps in her collection. Carrie has 962 stamps in her collection. How many more stamps does Carrie have than Jackie?</p>	<p>If your family of four ordered a large pizza that was cut into 12 slices, and each of you ate the same amount of pizza, what fraction of the pizza would you eat?</p>
<p>Make a list of the ages of all the people that live in your house. Find the mean, median, mode and range of the ages.</p>	<p>Draw pictures to represent each of the following fractions; then explain them to a family member. <math>\frac{1}{2}</math>   <math>\frac{1}{4}</math>   <math>\frac{3}{4}</math>   1</p>	<p>If you played outside for 8 hours each day, how many hours did you play outside during the entire week? How many minutes is that?</p>	<p>Flip a coin 25 times. Make a tally chart of how many times it lands on heads or tails. Write fractions for your head and tail data. Try it again. Share your chart and results with a family member.</p>	<p>What time is it right now?  What time was it 6 hours and 24 minutes ago?</p>
<p>A farmer has chickens and cows. What combinations of animals could total 24 legs? Can you show more than one combination? Share your solutions and strategy with a family member.</p>	<p>Make the largest and smallest numbers you can using the digits 4, 1, 7, 8, and 2. Find their sums and differences. Share with a family member.</p>	<p>Write the mixed numeral for each improper fraction below. <math>\frac{21}{5} =</math> <math>\frac{35}{6} =</math> <math>\frac{29}{8} =</math></p>	<p><b>Free Space – Enjoy the Day</b></p> 	<p>Using a ruler or yardstick, measure the perimeter of your front door. Don't forget to include the unit. (Adult help needed.)</p>
<p>A friend calls and invites you to a movie. The paper says the movie is 2 hours and 13 minutes long. It ends at 3:25. What time does it start?</p>	<p><b>Take A Break!</b></p> 	<p>Go on a 3-D scavenger hunt. How many cylinders, pyramids, cubes, rectangular prisms and cones can you find today?</p>	<p>Look around your house. Where do you see the following lines: Intersecting, Horizontal, Vertical, Parallel, and Perpendicular. Explain the definitions and your examples to a family member.</p>	<p>Look in magazines and newspapers to locate examples of circle, bar, and line graphs. Explain to a family member the data and what it represents.</p>
<p>Would you use kilometers, meters, or centimeters to measure the following? (Cm. m. km.) Distance to school Length of a crayon Length of a paper clip Distance around a room</p>	<p>How old will you be on December 7, 2042? (years and months)</p>	<p>Vowels are worth \$25 and consonants are worth \$50. Can you make a word worth \$300? \$700 = \$300 = \$700 =</p>	<p>Play a strategy game such as Checkers, Chess, Dominoes or Battleship with a friend or family member. Explain your strategy or game plan.</p>	<p><b>You Did It!</b></p> 