

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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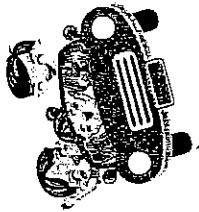
## BASIC FACTS

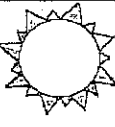


Websites	End of Year Expectations
<ul style="list-style-type: none"> <li>• <a href="http://www.xtramath.org">www.xtramath.org</a> (If your child does not remember their password, follow the steps on the website to register your child).</li> <li>• <a href="https://www.varsitytutors.com/aplusmath">https://www.varsitytutors.com/aplusmath</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>	<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>

# Summer Math Road Trip – Entering Grade 4



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 on 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>What time is it right now?</p> <p>What time was it 2 hours and 20 minutes ago?</p>	<p>The population of Wethersfield is 26,096. What is the value of the digit in the thousands place? Ten thousand place? Ones place?</p>	<p>Continue the pattern. 24, 28, 32, _____, 40, _____, 52. Explain the rule that helped you figure out the pattern.</p>	<p>At the ballpark, the first ticket sold on Tuesday was ticket number 421. The last ticket sold on Tuesday was 488. How many tickets were sold on Tuesday?</p>	<p>Write down some good strategies for figuring out or remembering multiplication and division facts. Explain them to a family member. <b>BE SURE TO PRACTICE FACTS ALL SUMMER LONG!</b></p>										
<p>Record the high temperature for today. What is the difference between today's temperature and the temperature of 32° on February 28<sup>th</sup>?</p>	<p>Draw an array of dots that shows <math>2 \times 4</math>. Now circle (make a ring around) <math>\frac{1}{2}</math> of the dots.</p>	<p>Draw a design that has symmetry.</p>	<p>Make a list of the ages of all the people that live in your house. Find the sum of all the ages. Now find the mean, median and range of the ages.</p>	<p>Explain to a family member the role numbers play in your favorite sport or hobby. (How are numbers used?)</p>										
<p>Write a summer word problem using this number model: <math>5 \times 30 =</math></p>	<p>I earned \$14.25 selling lemonade on Saturday. On Sunday I earned \$9.90. About how much money did I earn to the nearest dollar?</p>	<p>Use the flyers from the Sunday paper. Imagine that you have \$10.00 to spend. Choose 3 items to buy. Find out how much change you get back.</p>	<p><b>Free Space – Enjoy the Day</b></p> 	<p>Complete the What's My Rule box.</p> <table border="1" style="margin-left: auto; margin-right: auto;"> <thead> <tr> <th>IN</th> <th>OUT</th> </tr> </thead> <tbody> <tr> <td>4</td> <td>8</td> </tr> <tr> <td>6</td> <td></td> </tr> <tr> <td>9</td> <td>18</td> </tr> <tr> <td>20</td> <td>14</td> </tr> </tbody> </table>	IN	OUT	4	8	6		9	18	20	14
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<p>Take a handful of cereal, popcorn, or pasta. Estimate and record the number of items you think you have in your hand. Count and record your actual amount.</p>	<p><b>Take A Break!</b></p> 	<p>There is a frog at the bottom of a 20 foot well. Each day he jumps up 3 feet and each night he slides back 2 feet. How many days go by before the frog gets out?</p>	<p>If you flip a penny 50 times, how many times do you predict it will come up heads? Flip the penny 50 times (record heads or tails). Was your prediction correct?</p>	<p>I have 6 fish tanks. Each tank has the same amount of fish. After selling one tank of fish this morning, I have 40 fish in the remaining tanks. How many fish did I have before the sale?</p>										
<p>Look in magazines and newspapers to locate examples of circle, bar, and line graphs. Explain to a family member what the data is showing.</p>	<p>Using a ruler, tape measure or yardstick, carefully measure the perimeter of your television screen. Draw a diagram with the measurements of the sides.</p>	<p>Which is larger, <math>\frac{2}{3}</math> or <math>\frac{3}{4}</math>? How do you know? Prove it. Explain your thinking to a family member.</p>	<p>There are five people at a McDonald's restaurant. At the end of the evening they all shake hands with each other and say goodbye. How many handshakes were there? Draw a picture or a chart to show your answer.</p>	<p><b>You Did It!</b></p> 										

Student Name: \_\_\_\_\_