

# Do-Anytime Activities for Grade 6



These activities are easy and fun to do with your child at home, and they will reinforce the skills and concepts your child is learning in school.

Unit 1	<ul style="list-style-type: none"> <li>◆ Scan the paper or magazines for graphs, and discuss with your child whether the information presented seems accurate or intentionally misleading. Analyze and discuss the statistics with your child to make it more meaningful.</li> <li>◆ Ask your child to draw squares with an area of 12 square inches, of 8 square inches, and of 20 square inches.</li> </ul>
Unit 2	<ul style="list-style-type: none"> <li>◆ Have your child mentally calculate a tip from a restaurant bill. For example, if the bill is \$25 and you intend to tip 15%, have your child go through the following mental algorithm: 10% of \$25 is \$2.50. Half of \$2.50 (5%) is \$1.25. \$2.50 (10%) + \$1.25 (5%) would be a tip of \$3.75 (15%). The total amount to pay would be \$28.75.</li> <li>◆ Look through the paper for examples of number-and-word notation such as 7.5 million or 1.5 trillion, and ask your child to write the number in standard notation (7,500,000 or 1,500,000,000). If you can't find examples in the paper, make up some of your own.</li> </ul>
Unit 3	<ul style="list-style-type: none"> <li>◆ Create algebraic expressions that contain at least one variable. For example, you might say "John is 4 inches taller than his brother Sam." Ask your child to write the algebraic sentence which represents John's height (<math>S + 4</math>). Use family examples to make the expressions more meaningful.</li> <li>◆ Name some fractions, decimals, or whole numbers, and have your child find the reciprocal of each. Remind your child to think "What times the number equals 1?" Try <math>4 (\frac{1}{4})</math>, <math>0.3 (\frac{10}{3})</math>, and <math>1\frac{1}{3} (\frac{3}{4})</math>.</li> </ul>
Unit 4	<ul style="list-style-type: none"> <li>◆ When cooking in large quantities, ask your child to double or triple the amounts in your recipes. Watch to make sure that your child does the math for every ingredient. Or, halve a recipe if you need to make a smaller amount.</li> </ul>
Unit 5	<ul style="list-style-type: none"> <li>◆ Ask your child to find examples of right angles (<math>90^\circ</math>), acute angles (less than <math>90^\circ</math>), and obtuse angles (between <math>90^\circ</math> and <math>180^\circ</math>). Guide your child to look particularly at bridge supports for a variety of angles.</li> <li>◆ While driving in the car together, direct your child to look for congruent figures (two or more figures with the same size and shape). Windows in office buildings, circles on stop lights, and so on, can all represent congruent figures.</li> </ul>

Unit 6	<ul style="list-style-type: none"> <li>◆ Draw a number line from <math>-5</math> to <math>5</math> with sidewalk chalk outside. Give your child addition or subtraction problems with positive and negative numbers. Have your child solve the problems by walking to the numbers while explaining his or her thinking.</li> <li>◆ Make up true and false number sentences. Ask your child to tell you whether each one is true or false and explain why. For example, try <math>30 * (4 - 2) &gt; 60</math> (false, because the answer is exactly 60) and <math>\frac{36}{4} * \frac{4}{2} = 18</math> (true, because they equal each other). Switch roles.</li> </ul>
Unit 7	<ul style="list-style-type: none"> <li>◆ While playing a game that uses a die, keep a tally sheet of the total number of times you roll the die and how many times a certain number is rolled. For example, find how many times during the game that the number 5 comes up. Have your child write the probability for the chosen number. The probability is the number of times the chosen number came up over the number of times the die was rolled during the game. The probability will be close to <math>\frac{1}{6}</math>.</li> <li>◆ Try with your child to identify events that occur without dependence on any other event. Guide your child to see the different between <i>dependent</i> events and <i>random</i> events. For example, “Will Uncle Mike come for dinner?” depends on whether or not he got his car fixed. However, “Will I get HEADS when I flip this coin?” depends on no other event.</li> </ul>
Unit 8	<ul style="list-style-type: none"> <li>◆ Use graph paper to practice drawing shapes that are similar (exact shape but different size).</li> <li>◆ Encourage your child to read nutrition labels. Have him or her calculate the percent of fat in an item.  <math display="block">\frac{\text{fat calories}}{\text{total calories}} = \frac{\text{percent of fat}}{100\%}</math> Your child should use cross-multiplication to solve the problem.</li> </ul>
Unit 9	<ul style="list-style-type: none"> <li>◆ Using a ruler to draw a rectangle, a triangle, and a parallelogram. With your child, recall the formula for finding the area of each shape: rectangle (<math>A = l * w</math>), triangle (<math>A = \frac{1}{2}b * h</math>), and parallelogram (<math>A = b * h</math>). Find the area of each shape in square inches.</li> <li>◆ Use graph paper to draw polygons with given areas. For example, see if your child can draw a trapezoid with an area of 20.5 square inches or a rectangle with an area of 30 square inches and a perimeter of 15 square inches.</li> </ul>
Unit 10	<ul style="list-style-type: none"> <li>◆ Review tessellations with your child. Encourage your child to name the <i>regular</i> tessellations and to draw and name the eight <i>semiregular</i> tessellations. Challenge your child to create <i>nonpolygonal Escher-type translation</i> tessellations. You may want to go to the library first and show your child examples of Escher’s work.</li> </ul>