

Do-Anytime Activities for Grade 4



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"> ◆ Help your child identify real-world examples of right angles (the corner of a book) and parallel lines (railroad tracks). ◆ Have your child compile a shapes scrapbook or create a collage of labeled shapes. Images can be taken from newspapers, magazines, and photographs.
Unit 2	<ul style="list-style-type: none"> ◆ Help your child look up the population and land area of the state and city in which you live, and compare these facts with those of other states and cities.
Unit 3	<ul style="list-style-type: none"> ◆ Make up number sentences with correct and incorrect answers. Ask your child to put next to the sentence a “T” if the answer is correct and an “F” if the answer is incorrect. For example, try $5 * 6 = 35$ (F); $6 * 2 + 4 = 16$ (T); $4 * (2 + 5) = 13$ (F). ◆ Continue practicing multiplication and division facts by using Fact Triangles and fact families or by playing games from the <i>Student Reference Book</i>.
Unit 4	<ul style="list-style-type: none"> ◆ Gather money from piggy banks or wallets. Ask your child to show you two different amounts, such as \$1.33 and \$4.20. Practice adding or subtracting the amounts. Your child can use a calculator to check the answers.
Unit 5	<ul style="list-style-type: none"> ◆ Have your child write numbers through the millions and billions and practice reading them. Then select two and ask your child to tell which one is the greater number. ◆ Practice extended facts with your child. Start with $3 * 30$, $3 * 300$, and then try $3 * 3,000$. Have your child make up extended facts for you to calculate.
Unit 6	<ul style="list-style-type: none"> ◆ Hide an object in a room of your house, and give your child directions for finding it. Your child can move only according to your directions, and the directions can be given only in fractions or degrees. For example, say “Make a $\frac{1}{4}$-turn and walk $3\frac{1}{2}$ steps. Now, turn 180° and walk 4 steps.” Switch roles and have your child hide an object and give you directions to find it. ◆ Make a game of identifying and classifying angles: acute (less than 90°), obtuse (between 90° and 180°), right (90°), straight (180°), and reflex (between 180° and 360°) in everyday things (buildings, bridges, ramps, furniture).

Unit 7	<ul style="list-style-type: none"> ◆ Encourage your child to recognize how probability is used in everyday situations, such as weather reports. Have your child make a list of things that could <i>never happen</i>, things that <i>might happen</i>, and things that are <i>sure to happen</i>.
Unit 8	<ul style="list-style-type: none"> ◆ Have your child measure the perimeters of rooms in your house or of household objects. Then have him or her find the areas of the objects. ◆ Help your child draw a scale map of your city, town, neighborhood, or have your child do a scale drawing of the floor plan of your home.
Unit 9	<ul style="list-style-type: none"> ◆ Have your child look for everyday uses of fractions and percents. Look in games, grocery stores, cookbooks, measuring cups, and newspapers. When finding fractions, decimals, or percents, ask your child to change them from one form to another. For example, if you see “$\frac{1}{4}$ off”, ask your child to tell what percent is equal to $\frac{1}{4}$ (25%). ◆ Write whole numbers and decimals for your child to read, such as 650.02 (<i>six hundred fifty and two-hundredths</i>). Ask your child to identify the digits in the various places in the numbers—hundreds place, tens place, ones place, tenths place, and so on.
Unit 10	<ul style="list-style-type: none"> ◆ Have your child look for repeating borders or frieze patterns (a design made of shapes that are in a line or lined up) on buildings, rugs, and floors. Your child may want to sketch the friezes or draw original patterns. ◆ Use sidewalk chalk to make a number line with positive and negative numbers. Have your child solve addition and subtraction problems by walking on the number line. For example: to solve $-2 + 6$, your child would start on -2 and walk to the right six numbers to find the sum. Switch roles. For an inside activity, use paper, pencil, and fingers.
Unit 11	<ul style="list-style-type: none"> ◆ Have your child find the volume of various rectangular prisms around your house, such as shoe boxes and fish tanks.
Unit 12	<ul style="list-style-type: none"> ◆ During trips in the car, let your child know how far you will be traveling and the approximate speed you’ll be moving at. Ask your child to estimate about how long it will take to get to your destination. ◆ When grocery shopping, ask your child to help you find the “best buy” by comparing the cost per unit (ounce, gram, each) of different package sizes. For example, compare the cost of a family-size box of cereal with the cost of a regular-size box.

Do-Anytime Activities for Grade 5



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"> ◆ Ask your child to name as many factors as possible for a given number such as 24 (1, 24, 6, 4, 12, 2, 8, 3). To make sure the factors are correct, your child can multiply them with a calculator.
Unit 2	<ul style="list-style-type: none"> ◆ Practice extending multiplication facts. Write each set of problems so that you child may recognize a pattern. Set A: 6×10 6×100 $6 \times 1,000$; Set B: 5×10 5×100 $5 \times 1,000$ ◆ When your child adds or subtracts multi-digit numbers, talk about the strategy that works best for him or her. Try not to impose the strategy that works best for you! Here are some problems to try: $467 + 343$; $761 + 79$; $894 - 444$; $842 - 59$.
Unit 3	<ul style="list-style-type: none"> ◆ To learn more about population data and its uses, visit the Web site for the U.S. Bureau of the Census at www.census.gov. Have your child write three interesting pieces of information that he or she learned. ◆ Draw various angles: acute (less than 90°), obtuse (between 90° and 180°), and right (90°). Ask your child to estimate each angle measurement and then use a protractor to find the actual measurement. Compare the results. Switch roles, letting your child draw angles for you to estimate and measure.
Unit 4	<ul style="list-style-type: none"> ◆ Find a map of your state and ask your child to use the scale to find the distance from a particular city to another city.
Unit 5	<ul style="list-style-type: none"> ◆ Identify percents used in stores, newspapers, and magazines. Help your child find the sale price of an item that is discounted by a percent. For example, a \$40 shirt discounted by 25% will cost \$30. ◆ Practice writing numbers as a fraction and then as a decimal. Try one-fourth ($\frac{1}{4}$, 0.25), three-tenths ($\frac{3}{10}$, 0.3) and so on.
Unit 6	<ul style="list-style-type: none"> ◆ Have your child practice adding fractional parts of a hour with a digital clock. Ask questions, such as “What time will it be an hour and a half from now? What was the time a quarter of an hour ago?” ◆ Practice adding and subtracting fractions with the same denominator.

Unit 7	<ul style="list-style-type: none"> ◆ Create a number sentence that includes at least three numbers, several different operations, and parentheses. Have your child solve the number sentence. Then change the problem by placing the parentheses around different numbers. Ask your child to solve the new problem and explain how it changed according to the order of operations, for example, $(6 * 5) - 3 = 27$ and $6 * (5 - 3) = 12$. ◆ Think of two numbers with exponents such as 2^5 and 3^3. Ask your child to determine which number is greater. If you like, check your child's answer on a calculator. Switch roles.
Unit 8	<ul style="list-style-type: none"> ◆ Use a deck of cards to practice comparing fractions. Use only the number cards 2 through 9. Each player is dealt two cards and creates a fraction using one card as the numerator and one card as the denominator. The player with the greater fraction takes all four cards. ◆ When at a store, reinforce percents by pointing out discounts and asking your child to figure out the sale price. If, for example, a sign shows "40% off", select an item, round the price to the nearest dollar, and help your child calculate the savings.
Unit 9	<ul style="list-style-type: none"> ◆ Have your child draw a picture using rectangles, parallelograms, and triangles. Once completed, work together to find the area of each shape, and write it inside each shape. Ask your child, "What do you notice about the size of the area and the size of the shape?"
Unit 10	<ul style="list-style-type: none"> ◆ Draw several circles and ask your child to find the radius, diameter, and circumference of each. Cut them out and make a design. ◆ Practice evaluating simple algebraic expressions by asking your child, "If y is equal to 4 what is ... $y + y$, $3 + y$, $y * 2$ and so on.
Unit 11	<ul style="list-style-type: none"> ◆ Find two real world 3-dimensional shapes and guess which will have the greatest and the least volumes. Then find the volume of each one and check to see if your guess was correct.
Unit 12	<ul style="list-style-type: none"> ◆ Reinforce ratios with a deck of cards. Ask your child, "What is the ratio of 3s to the whole deck?" (4 to 52 or 1 to 13); "Jacks to Aces and Queens?" (4 to 8 or 1 to 2); "Hearts to the whole deck?" (14 to 52 or 7 to 26). ◆ In a parking lot, select a row or section and count the number of cars parked in that section. Ask how many of those cars in that section are red. Have your child determine the ratio of red cars to the number of cars parked in that section.

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"> ◆ 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. ◆ Ask your child to draw squares with an area of 12 square inches, of 8 square inches, and of 20 square inches.
Unit 2	<ul style="list-style-type: none"> ◆ 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. ◆ 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.
Unit 3	<ul style="list-style-type: none"> ◆ 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 ($S + 4$). Use family examples to make the expressions more meaningful. ◆ 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 $4 (\frac{1}{4})$, $0.3 (\frac{10}{3})$, and $1\frac{1}{3} (\frac{3}{4})$.
Unit 4	<ul style="list-style-type: none"> ◆ 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.
Unit 5	<ul style="list-style-type: none"> ◆ Ask your child to find examples of right angles (90°), acute angles (less than 90°), and obtuse angles (between 90° and 180°). Guide your child to look particularly at bridge supports for a variety of angles. ◆ 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.

Unit 6	<ul style="list-style-type: none"> ◆ Draw a number line from -5 to 5 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. ◆ 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 $30 * (4 - 2) > 60$ (false, because the answer is exactly 60) and $\frac{36}{4} * \frac{4}{2} = 18$ (true, because they equal each other). Switch roles.
Unit 7	<ul style="list-style-type: none"> ◆ 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 $\frac{1}{6}$. ◆ Try with your child to identify events that occur without dependence on any other event. Guide your child to see the difference 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.
Unit 8	<ul style="list-style-type: none"> ◆ Use graph paper to practice drawing shapes that are similar (exact shape but different size). ◆ Encourage your child to read nutrition labels. Have him or her calculate the percent of fat in an item. $\frac{\text{fat calories}}{\text{total calories}} = \frac{\text{percent of fat}}{100\%}$ Your child should use cross-multiplication to solve the problem.
Unit 9	<ul style="list-style-type: none"> ◆ 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 ($A = l * w$), triangle ($A = \frac{1}{2}b * h$), and parallelogram ($A = b * h$). Find the area of each shape in square inches. ◆ 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.
Unit 10	<ul style="list-style-type: none"> ◆ 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.