



DICKSON COUNTY SCHOOL DISTRICT

Every Student Every Day

Preparing for 6th Grade Math May 2020

Dickson County math teachers have indicated key skills that would help students be prepared for 6th grade math. These skills can be practiced at home in a variety of ways – through skills practice, games, and online resources.

District Packets will remain on the Dickson County Schools website through the summer. These packets contain skills practice pages with answers attached that students could practice. Students can download these and work on their paper without the need for the internet or printing. Go to www.dcstn.org, choose Parents and Students tab, then select Online Learning, Instruction, and Technology Resources. Choose 5th grade, Math, and select from the 3 printable District Packets which include foundation skills needed for success in 6th grade. Students can work on practice pages based on the skills listed below.

Additional options to prepare your rising 6th grader to be successful in math class next year, here are skills that can be practiced from home along with games or online ideas to get you started:

- Know your multiplication facts from 0-12
 - Using paper, index cards, or post it notes, write each number 0-12 two times. Cut them out, shuffle them, and play “War”. Students can also draw a model to represent each fact and write the fact family for each one. Shuffle and play. The player with the larger product wins the round. The player with the most cards at the end of play wins.
 - <https://www.mathplayground.com/multiplication01.html>
 - <https://www.multiplication.com/games/all-games>
- Multiply bigger whole numbers (ex. 752×25) and fractions
 - Roll dice to create numbers to multiply. Start with two digit by two digit (ex. 42×74). Once student is multiplying correctly, move on to larger numbers. If multiple players, roll the dice and let each player try to create a problem that will give the largest (or smallest) product.
 - <https://www.splashlearn.com/multiplication-games>
- Divide whole numbers (including those with a remainder)
 - Roll dice 5 times and create your own division problem to divide a three digit by a two digit number. Player who has the smallest quotient wins the round. For example, you roll a 2, 3, 6, 5, and 1. Player A decides to divide $651 \div 32$ and gets a quotient of 20 with a remainder of 11. Player A creates $632 \div 15$ and gets a quotient of 42 with a remainder of 2. Player A wins. Answers may be whole numbers or remainders.
 - <https://www.funbrain.com/games/math-mountain>
 - <https://www.math-play.com/long-division-game.html>
- Add, subtract, and multiply fractions
 - Roll two dice to create a “goal” – the 1st number is numerator, 2nd number is denominator. Each player rolls 4 dice (or 2 dice twice). Using the numbers, create a fraction (less than one or greater than one) trying to add, subtract, or multiply to reach the “goal” number. All 4 dice must be used, and you can't use a number more than once unless you rolled it more than once. Compare your answers to the “goal”. Whoever is the closest wins the round and receives a point. Roll for a different “goal” each round. Whoever has the greatest point total at the end of 5 rounds is the winner. You can check with a calculator, but do the work without a calculator! ☺
 - <https://www.coolmath4kids.com/math-help/fractions>
 - <https://www.splashlearn.com/fraction-games>

- Add, subtract, multiply, and divide decimals to the hundredths place
 - Decimal Race to 500: Use a deck of cards. Remove the face cards and tens. Aces are 1 and jokers are 0. Even numbers are whole numbers and odd numbers are decimals. The cards are shuffled and stacked face down. Player 1 draws ___ cards (start with 3 cards, then move to 4 and 5). Arrange the cards any way you want, using the odd-even rules. Write the number on your paper. (Ex. You draw 7, 4, and 9. You can make 4.79 or 4.97.) Player 2 draws 3 cards and follows the same rules. Player 1 draws again and follows the same rules, but adds the second number to first number. (Ex. You draw 6, 2, and 5. You can make 62.5 or 26.5.) Players continue to alternate turns until one player has a winning sum equaling 500 or more.
 - Variations of Decimal Race to 500: subtract the decimals created until one player has a winning difference of 0. Multiply the decimals with a goal of 1,000 (or whatever number you choose). Divide decimals trying to get as close to 0 as possible.
 - <http://www.math-play.com/decimal-math-games.html>

For students who enjoy online practice and would like to challenge themselves by attempting 6th grade content or reviewing 5th grade skills, here are a few websites that will allow you to pick and choose topics.

- Prodigy (Gr1-8) – offers a unique, adaptive learning platform that keeps students highly engaged with math. If your student doesn't already have an account, go to <https://www.prodigygame.com/> and click on "Get your free account."
- Khan Academy (K-12) – offers free lessons where students can use exercises, quizzes, and instructional videos to learn and master skills. Students will get immediate feedback and encouragement. <https://www.khanacademy.org/>
- Dreambox Learning (K-8) – offers an adaptive learning platform that keeps students engaged and adapts based on student needs. Go to www.dreambox.com/at-home to register for a free, 30 day trial.
- MATHia from Carnegie Learning (6 – 12) – "guides students through sample problems, describing each step, rephrasing or redirecting questions, and honing in on the parts of the problem that are proving difficult. It encourages problem-solving and provides hints every step of the way so students don't get stuck on a problem." Go to <https://discover.carnegielearning.com/MATHiaHome.html> to create an account that is free through the summer for parents & students. "MATHia@Home's powerful 1-to-1 coaching technology adapts to give students exactly what they need at any given moment so they can still make progress on their class goals while school is not in session. Real-time feedback and hints make sure that your students will not get stuck."

Science

Science is designed to build on the natural curiosity of children. Asking questions about why something happens (phenomena) then exploring the idea through hands-on activities while building problem-solving and thinking skills are keys to understanding the world around us.

Topics for Exploration include:

*Thermal Energy – Radiation, Conduction, Convection

*Effects of invasive species on native populations in Tennessee

*Relationship between air masses, pressure systems, and frontal boundaries and the resulting weather conditions

This is a very short list from the numerous topics students will explore next year. To see the complete list of standards (topics), visit: [TN Academic Standards for Science](#)