

## Math Games & Activities for Home for Students with Visual Impairment Created by Sue Sullivan

### All ages

#### **Math & Literature - picture books/stories**

Literature is the ideal vehicle to help students see the importance of numbers in their daily lives.

<https://www.penguinrandomhouse.com/series/1DK/dk-braille>

<https://www.amazon.com/Infinity-Me-Carolrhoda-Picture-Books/dp/0761367268>

<https://www.weareteachers.com/picture-books-about-math/>

<http://www.mathicalbooks.org/>

<https://imagination-soup.net/the-biggest-list-of-the-best-math-picture-books-ever/>

### All ages

#### **Math Book Read Alouds on Youtube**

<https://www.youtube.com/watch?v=ZHOdDFZrimU>

### All ages

#### **Alexa Devices Ideas**

Thinking Cap Math, High Five Maths, Tell a math joke, Tell a math fact  
Have fun trying out games!

### All ages

#### **Would you Rather Math** - Accessibility varies but you could make up your own!

Whichever option you choose, justify your reasoning with mathematics.

<http://www.wouldyourathermath.com/>

### All ages

#### **Math Card Games & More** - Use playing cards with braille or large print

<https://www.mathrecovery.org/resources>

### Pre-K - Kind

**Bugzzle** - May be good for some low vision students, may need to enlarge the cards and/or better define the black lines.

If math workbook pages bug your young learner, try teaching the basics of fractions, beginning geometry, and more with Bugzzle. Just choose a card, there are four levels of difficulty in the card choices, and then flip and position the geometric puzzle pieces into the bug-shaped tray to match the picture. To complete the Bugzzle puzzle, your child will need to consider colors, shapes, and lengths of the 18 high-quality, dual-color puzzle pieces. The

sturdy, brightly-colored pieces and 40 pattern cards will give your kindergartner's brain a good workout in spatial reasoning, critical thinking, and problem-solving.

<https://timberdoodle.com/products/bugzzle>

### **Pre-K - Kind**

**GeoMagic Mosaics** - May be good for some low vision students

Set of 250 blocks in 8 geometric shapes for building designs and patterns

Encourages fine motor skills, planning, creativity, spatial reasoning, math skills

Experience the creative potential of basic geometry!

[https://www.fatbraintoy.com/toy\\_companies/fat\\_brain\\_toys/geomagic\\_mosaics.cfm](https://www.fatbraintoy.com/toy_companies/fat_brain_toys/geomagic_mosaics.cfm)

### **Pre-K - Kind**

Perkins eLearning - Mathematical Activities for Parents and Their 2- to 5-Year-Old Children

<https://www2.ed.gov/pubs/EarlyMath/activities1.html>

### **PreK - 1st grade**

**Match It Mathematics** - Link below shows how to adapt the game

This game teaches them the basics of addition and subtraction by letting them match corresponding puzzle pieces. It also improves their recognition and fine motor skills as well as hand-eye coordination. With each puzzle card cut in a unique shape, you can be assured that only the right match will fit.

<https://www.pathstoliteracy.org/strategies/adapting-match-it-mathematics-game>

<https://tlji.com/search?controller=search&s=match+it>

### **Pre K - 3rd Grade**

**Bedtime Math App** - Parents would read questions to students

The Bedtime Math app for iPhone/iPad or Android has a daily math problem, a surprise problem, and an archive of math problems which you can browse to find your favorite topics.

<http://bedtimemath.org>

### **Kind - 2nd grade**

**PBS Cyberchase** - Accessible

Aimed at kids ages six to eight, the on-line game is designed using the "born accessible" approach to teach children with cognitive and physical disabilities about STEM.

<https://pbskids.org/cyberchase/>

### **Kind - 5th grade**

**What's My Number** - can be played with a braille or printed hundreds grid

The exciting game of number patterns. Help students learn to count from 1 to 50 with this exciting number patterns game. Students will love the interactive nature of the game board as they ask questions and flick down numbers to best predict their opponent's number.

[https://www.amazon.com/Junior-Learning-Whats-Number-Board/dp/B00B1OOJKQ/ref=sr\\_1\\_92?keywords=math&qid=1584298677&s=toys-and-games&sr=1-92](https://www.amazon.com/Junior-Learning-Whats-Number-Board/dp/B00B1OOJKQ/ref=sr_1_92?keywords=math&qid=1584298677&s=toys-and-games&sr=1-92)

### **Kind & up**

**Rush Hour Junior** - May be good for some low vision students

Just like the classic Rush Hour logic game, you shift blocking cars and trucks out of your way to clear a path to the exit. The 40 leveled brainteaser challenges are a fun way to build problem-solving skills. Rush Hour Jr. is an ideal logic game for younger ages but still plenty of fun for an adult brain!

<https://www.thinkfun.com/products/rush-hour-jr/>

### **Kind & up**

**Dice Games** - Use tactile or large print dice

[https://www.youcubed.org/resources/dice-games-k-12/?utm\\_source=Youcubed+Updates&utm\\_campaign=40e5bc2bad-EMAIL\\_CAMPAIGN\\_2020\\_03\\_18\\_04\\_51\\_COPY\\_01&utm\\_medium=email&utm\\_term=0\\_230e567c40-40e5bc2bad-164468601](https://www.youcubed.org/resources/dice-games-k-12/?utm_source=Youcubed+Updates&utm_campaign=40e5bc2bad-EMAIL_CAMPAIGN_2020_03_18_04_51_COPY_01&utm_medium=email&utm_term=0_230e567c40-40e5bc2bad-164468601)

### **1st Grade & up**

**Mancala** - Accessible, tactile game

Mancala is one of the world's oldest and best-loved games. Players take turns scooping up the special marbles and counting them out one at a time into the pockets on the board. When they drop a marble into an empty pocket on their side of the board, they capture all the stones in the opposite pocket. It sounds like a simple marble game, but it's got plenty of strategy and it reinforces STEM skills such as counting and strategic planning. The winner is the player who collects most of the marbles.

<https://www.pressmantoy.com/product/folding-wood-mancala/>

### **2nd - 4th Grade**

**Crankity Brain Teaser** - Accessible, tactile game but student could need help with the initial set up

The object is simple: build a puzzle solution between the red gear and the yellow wheel. When the gear teeth interlock, you'll be able to turn the wheel and send the whole contraption spinning!

Start by choosing a puzzle of your choice (there are four levels of difficulty so the whole family can play!).

[https://www.fatbraintoy.com/toy\\_companies/fat\\_brain\\_toy\\_co/crankity\\_brainteasezr.cfm#product-video](https://www.fatbraintoy.com/toy_companies/fat_brain_toy_co/crankity_brainteasezr.cfm#product-video)

### **2nd grade & up**

**Qwirkle** - May be good for some low vision students

MindWare's best seller is a simple game of matching colors and shapes: a must-have for your next family game night!

Players score points by building rows and columns of brightly-colored tiles that are either all the same color or all the same shape, without creating duplicates; create a line of all six in a row, and you score a "Qwirkle." It's the perfect combination of skill and chance that all ages can play, understand and enjoy!

<https://www.mindware.orientaltrading.com/qwirkle-plus-free-bonus-pack-a2-13791375.fltr>

### **2nd grade & up**

**Zeus on the Loose** - May be good for some low vision students, could add braille to the cards

Mount Olympus and it's up to you to nab this dashing deity. Play cards strategically, adding numbers as you climb up the mythic mountain. Grab Zeus when the total reaches a multiple of 10.

<https://gamewright.com/product/Zeus-on-the-Loose>

### **2nd grade & up**

**Racko** - Make your own set of braille or large print cards

The objective is to be the first player to arrange all of the cards in your rack from lowest to highest.

Great number sense game. Make your own cards 0 - 60 with braille or large print on index cards. Play open handed or behind a screen. Also, can use cards with integers or fractions. Play with 5 - 10 cards to make the game easier or harder.

<https://winning-moves.com/product/Rack-O.asp>

### **2nd grade & up**

**Head Full of Numbers** - Use large print or tactile dice (possibly make with 3D printer at a library)

Place the three standard dice and three custom dice (with numbers 0, 1, 2, 7, 8 and 9) into the fun dice shaker then roll them out and place them into the dice tray. Set the sand timer and have the score pad ready to record the number of unique, correct equations each player makes using the numbers rolled. Equations can use simple addition or subtraction or include multiplication and division for a more challenging game.

<https://www.learningresources.com/head-full-of-numbersr-math-game>

## **2nd grade & up**

### **Braille Uno** - Accessible

UNO is the classic card game that's easy to pick up and impossible to put down! Players take turns matching a card in their hand with the current card shown on top of the deck either by color or number. Special action cards deliver game-changing moments as they help you defeat your opponents. These include Skips, Reverses, Draw Twos, Wild and Draw Four Wild cards. You'll find 25 of each color (red, green, blue, and yellow), eight Wild cards, three Customizable cards and one Special Rule card inside the 112-card deck. If you can't make a match, you must draw from the central pile! And when you're down to one card, don't forget to shout "UNO!" The first player to rid themselves of all the cards in their hand before their opponents wins.

To

simplify the game take out the special cards (skip, reverse, etc).

<https://www.amazon.com/UNO-Braille-Blind-Vision-Players/dp/B07XF995SP>

## **2nd grade & up**

### **Slapstack Math**

APH has released a new action-packed math app, Slapstack Math. This iOS app is free and is fully accessible with VoiceOver.

<https://www.perkinselearning.org/technology/posts/slapstack-math-review-ios-app>

## **3rd grade & up**

### **Blindfold Games on iPhone or iPad**

Blindfold Games creates audio games for visually impaired people, with dozens of games for the iPhone, iPad, and iPod. The suite includes over 80 games such as casino games like Blackjack and Bingo, card games like Crazy Eights and Rummy, puzzle games like Simon and Color Crush, TV games similar to Wheel of Fortune and Word Ladder, and sports games like Bowling, Pong and Pinball.

Games are free with in-app purchases.

<https://apps.apple.com/us/app/blindfold-games/id1456544613#see-all/developer-other-apps>

<https://www.perkinselearning.org/technology/posts/want-more-educational-apps-are-accessible-blindfold-games>

## **3rd grade & up**

**Qwixx** - Play with tactile die, use brailled cards number 1-10 in place of paper, student can toss a card out instead of crossing out the number on the card.

This quick-playing dice game will have you on the edge of your seat from beginning to end! Qwixx is simple to play but each decision is crucial - the more numbers you cross off, the more points you score. With no downtime between turns you'll have a chance to gain from each and every roll. Just one round of this thrilling game and you will be caught up in Qwixx-fever! Reinforces math facts, probability, strategic thinking.

<https://gamewright.com/product/Qwixx>

### **3rd grade & Up**

**Pig** - Use large print or tactile dice

Because it only needs one die, Pig is a great game to pass some time wherever you happen to be, as long as you keep a die in your pocket, car, desk drawer, etc.

Since you can risk everything on every roll, in an attempt to gain more points, Pig is identified as a "jeopardy game". The goal in Pig is to reach 100 points as quickly as possible with the winner being the first one to do so.

<http://www.dicegamecentral.com/index.php/Dice-Game-Central-Home-Page/Pig-Scoresheets-Rules-Free-Download-Printable-2>

### **3rd grade & up**

**Yahtzee** - Use large print or tactile dice

Yahtzee is a classic dice game played with 5 dice. Each player's turn consists of rolling the dice up to 3 times in hope of making 1 of 13 categories. Examples of categories are 3 of a kind, 4 of a kind, straight, full house, etc. Each player tries to fill in a score for each category, but this is not always possible. When all players have entered a score or a zero for all 13 categories, the game ends and total scores are compared.

Simplify the game by playing with fewer categories.

<https://www.amazon.com/Hasbro-Gaming-00950-Yahtzee/dp/B00TLEMRKM>

### **3rd grade & up**

**Farkle** - Use large print or tactile dice

Become a Farkle fanatic with this Classic Dice-Rolling, Risk-Taking Game™. Take a risk, and keep rolling to build your score. Or play it safe so you don't lose your points in a Farkle. It's a fight to the finish in this fabulously fun game of strategy and luck!

Farkle is a slightly more involved/complicated game of Yahtzee.

<https://www.playmonster.com/product/farkle/>

### **3rd grade & up**

**3 Rolls to Make 100** - Use large print or tactile dice

Players attempt to create 3 numbers that will add to 100 or as close as possible to 100. Students use lots of different skills as they choose their numbers and add them. Sometimes working out who is closest to 100 creates a great discussion with more skills required to calculate this.

<https://games4learning.com/5-minute-math-games/>

### 3rd grade & up

**Mastermind for Kids** - Can use tactile shapes in place of colored pieces

Kids test their code-cracking prowess with the classic game of Mastermind made especially for kids! The Codemaker sets a secret code, then the Codebreaker tries to match the code using logic, deduction, and maybe even a little bit of luck. After each move, the Codemaker gives clues to the Codebreaker. With lots of possible code combinations, every game is guaranteed to be a brainteaser!

Three levels of play makes this a game that kids can play for years and years

Players take turns setting secret codes and solving the codes

Uses STEM and STEAM principles--players use deductive reasoning and logic

<https://www.amazon.com/Mastermind-Game-Strategy-Codemaker-Codebreaker/dp/B00000DMBF>

### 3rd grade & up

**Shut the Box** - Add Braille labels to numbers, use tactile dice

Each player tries to close the most numbers on a the box by rolling a pair of dice and using math operations. This can be played with paper and pen or a deck or brailled playing cards also.

[https://www.amazon.com/AMEROUS-Players-Instructions-Classics-Tabletop/dp/B07XDTHNQY/ref=sr\\_1\\_17?keywords=shut+the+box&qid=1584316044&s=toys-and-games&sr=1-17](https://www.amazon.com/AMEROUS-Players-Instructions-Classics-Tabletop/dp/B07XDTHNQY/ref=sr_1_17?keywords=shut+the+box&qid=1584316044&s=toys-and-games&sr=1-17)

### 4th grade & up

**Albert's Insomnia** - Can use a set of regular braille playing cards to play this game.

*Albert's Insomnia* is a mental math game using math operations, which can be differentiated for all grades, inclusive of K-5, 6-8 and even high school level students (when factorials and exponents are incorporated into the game). Educators using Albert's Insomnia report playing helps with: mental math; math facts; learning order of operations; developing attention span and concentration, aiding students with ADD/ADHD; communication and social interaction skills practice; critical and creative thinking skills practice; building self-esteem; gives reluctant math students another chance to find math enjoyable!

<https://www.amazon.com/Alberts-Insomnia-Math-Learning-Card/product-reviews/B0049AT382>

<https://www.summerbookcompany.com/store/Alberts-Insomnia-card-game-p141121054>

#### **4th grade & up**

**Rummikub Rummy Tile Game** - May be good for some low vision students

Rummikub is one of the most beloved games in the world. It features simple rules that are easy to learn but with game play that rewards critical thinking. This rummy tile game is suitable for both children and adults alike. It's similar in style to rummy but it uses gorgeous tiles that have a more substantial feel than playing cards. It takes just a minute or two to set up so you can get to playing right away. You get enough pieces for up to four people to play at once.

<https://www.amazon.com/Rummikub-Original-Rummy-Tile-Game/dp/B000001ZJB>

#### **4th grade & up**

**24** - Parents would read numbers to student

Make the number 24 from the four numbers shown. You can add, subtract, multiply and divide. Use all four numbers on the card, but use each number only once. You do not have to use all four operations. To simplify give students 3 numbers, not 4.

<https://www.24game.com/t-about-howtoplay.aspx>

Also, offered as an app

<https://www.24game.com/t-24gameapp.aspx>

#### **4th grade & up**

**Which One Doesn't Belong?**

A website dedicated to providing thought-provoking puzzles for math teachers and students alike. There are no answers provided as there are many different, correct ways of choosing which one doesn't belong.

<https://wodb.ca/>

#### **5th grade & up**

**OverUnder** - Accessible, number based auditory trivia game. Parent would have to read the cards.

How many bricks are in the Empire State building? How far away is Pluto? Make your best guess in this party game of estimating far-out facts. Draw a card and ask others for their best estimate to one of 600 questions. Then decide whether their answer is either OVER or UNDER the correct amount. Collect the most cards and guess what? You win!

<https://gamewright.com/product/OverUnder>

### **5th grade & up**

**Ninety - Nine or Bust** - Make your own set of cards, 0 through 9, -10, and 99 using index cards with or without braille.

A family card game that involves strategy with simple addition that's played in short, quick rounds. The object is to not lose a round. Think fast, because if your score goes higher than 99, you bust! Any player who cannot keep the count at, or below 99, loses the round.

To simplify play without the tokens.

<https://www.amazon.com/Legendary-Games-23001-Ninety-Nine-Bust/dp/B00179XV00>

### **5th grade & up**

**BlackJack (21)** - Play with braille/large print cards and poker chips

Each participant attempts to beat the dealer by getting a count as close to 21 as possible, without going over 21. Students practice addition facts, number sense and probability.

<https://bicyclecards.com/how-to-play/blackjack/>

### **6th grade & up**

**Cribbage** - Large print or braille playing cards

Cribbage is one of the best two-hand games - and one of the most enduring, for the game was entertaining card players as far back as the seventeenth century.

<https://bicyclecards.com/how-to-play/cribbage/>

### **E-learning:**

Zearn K - 5 (free): <https://www.zearn.org>

Aleks K-12 (free trial, then subscription): <https://www.aleks.com/login>

Khan Academy All Content (free): <https://www.khanacademy.org/signup>

Accessibyte (free): <https://www.accessibyte.com/>

### **VISTAS Education Partners Inc**

In response to the wave of K-12 school closures across the United States due to COVID-19, a few concerned teachers of the blind and advocates got together to organize a free, homework help hotline for blind/visually impaired students. Check out the details below, and share with others.

National Homework Hotline for Blind/Visually Impaired Students (NHH-BVI)

What: Homework telephone hotline for blind/vision impaired students in grades K-12 experiencing emergency school closures due to COVID-19.

Areas of hotline help include: navigating accessible websites with JAWS, Nemeth and literary braille reading and writing, navigating tablet/laptop using JAWS and Over, and using refreshable braille display.

\*The hotline does not provide tutoring in non-Expanded Core Curriculum content areas

When: Tues -Thurs, 3:30pm - 8pm EST, March 17- April 16, 2020 (\*end date may be adjusted based on school closure developments)

How: Students submit a support request via email and receive a call-back during the designated NHH-BVI times.

Who: NHH-BVI helpers are experienced TVIs and blind mentors who want to help ensure that blind/vi students can access and complete their remote learning assignments

For more info, and to request an initial NHH-BVI support call, please email [nhh-bvi@vistaseducation.com](mailto:nhh-bvi@vistaseducation.com).