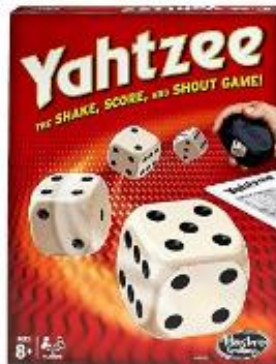
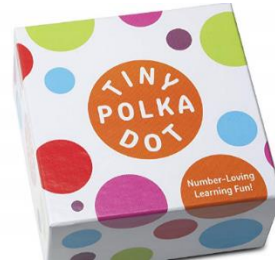
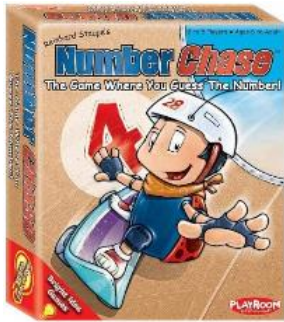


Serious thinking through games and puzzles.

## Early Numeracy Games (K-2)

Young children are natural mathematicians. We must nurture their mathematical minds and validate automaticity. These games will not only make you think like mathematicians, but also strengthen number sense and fact fluency! Win, win, win, right!?



*Disclaimer: A handful of the games in this document have been discontinued. I have left them in this document as black and white images in case you have this game already.*

*-Foxborough Elementary Math*

## Serious thinking through games and puzzles.

### Number Sense, Flexibility and Manipulation: Calculating Numbers > Fact Recall

Fact fluency is a byproduct of secure number sense. Mental math is a real-world skill that is used regularly but assessed rarely. Subitizing, partitioning, composing and decomposing, compensation, internal number lines, compatible numbers, partial sums, differences, quotients, and products are some of the critical skills that good mathematicians use daily. These mathematical games will encourage students to think flexibly and to manipulate and hold numbers in their minds. These games have multiple entry levels and can be easily differentiated for learners' skill level.

Sumoku (9+)



Shut the Box (6+)



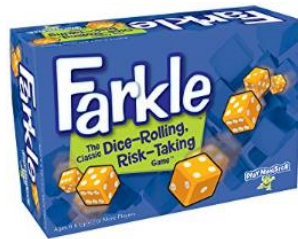
24 Game (9+)



Zeus on the Loose (8+)



Farkle (8+)



Flip 4 (8+)



Quixx (8+)



Mango Tango (5+)



Zoom (9+)



Rat-a-Tat Cat (6+)



Ratuki (6+)



Zap (7+)



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# Serious thinking through games and puzzles.

## Logic, Reasoning & Proof

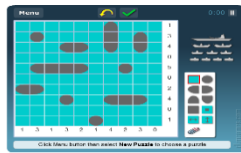
Logic, reasoning and proof are essential parts of mathematics in Pre-K through grade 12. Looking for patterns, problem solving, perseverance, curiosity, logic, reasoning and proof are embedded in these games and other unexpected places. These are the same habits of mind used by mathematicians and cover many of the standards for mathematics practice.

Antivirus (7+)



Battleships/Yubotu (middle school)

(<http://dkmgames.com/Yubotu.htm>)



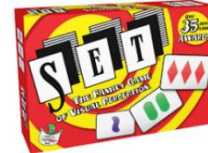
Blink (7+)



Mastermind (8+)/Mastermind Jr. (6+)

MetaForms (5-99)

Set (6+)/Set Jr. (3+)



Smart Cookies (6-99)

ZooLogic (5+)

Quarto! (8+)



Quoridor (8+)

Rush Hour

Quirkle (6+)

Snap: The Interlocking Dragon-Making Game (6+)



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# Serious thinking through games and puzzles.

## Strategy, Problem solving, Determination, and Time on Task

Our students will be lost in the world if they are unable to strategize and solve novel problems. In mathematics, their ability to do so is even more essential. In fact, "Make sense of problems and persevere in solving them" is the first and central Standard for Mathematical Practice. This Games Teachers Play seminar will look at mathematical games and puzzles which engage students in looking a few steps ahead, developing strategy, and solve novel problems. The games have multiple entry levels, many are language free, and can be easily differentiated for learners' age and current performance.

Aba-Conundrums (9+)



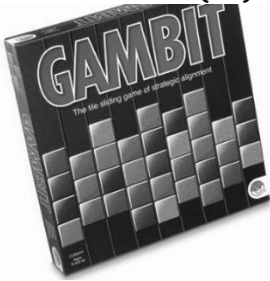
Anti-Virus (7+)



Four in a Square (7+)



Gambit (8+)



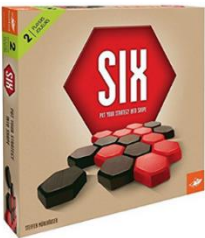
Gobblet (7+)



Quoridor(8+)



Six (7+)



Meta Forms (5+)



Blokus (7+)



Fits (8+)



Dig It (7+)



Tantrix (8+)



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