

Tentative Math Club 1 2018-2019 Topics

Are you good at giving directions?

Not just squares: domino, triomino, tetromino and pentomino!
Pentominoes 2D and 3D
Blokus game.

Baguette and pizza: how many cuts to share with everyone?
Cut a chain with minimal cut!

Knots: tie your shoes!
Loops and knots: making chains without staplers, glues or tapes!

Fold and cut theorem: how to cut only once?

Ghost Blitz: how fast can you match shapes and colors or none of them?
Game of SET: all the same or all different!

What color is your hat?
Logic table: how to tell a knave from a knight?

Mirrors symmetry: everyday object hidden in plain sight!
More mirrors: who can read upside down? Just from the bottom half?
Even more symmetry: what can a single hole punch do?
Mirrors again: how do kaleidoscopes work?

The skyscraper problem: how are city streets arranged?
Keva: can you make a leaning tower from plain wooden planks?

Projections: can side views tell us everything about an object?
What do cubes look like when flat?
Zome: how many sticks can make a soccer ball?

Cyphers: how to write secret messages and how to read them?

Game-theory: how to win always?

Tessellation: can identical shapes fill the entire board?