



GridForge

Big Ideas on the Board

A SPARK & ANVIL STRATEGY BOOK

GridForge – Big Ideas on the Board

A Spark & Anvil companion book – free to download and share.

Ages 9-14. Game: connection games (Connect Four · Reversi · Gomoku · Hex · Dots and Boxes).

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This volume teaches strategy through the app's cast – 6 big ideas, one per chapter.

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GridForge holds a whole shelf of line-and-grid games – Connect Four, Reversi, Gomoku, Hex, Dots and Boxes. They look different, but the best players use the same handful of big ideas in all of them. This book teaches those ideas through the cast – one idea per chapter.

Chapter 1 – Think Ahead

Arbor sees every game as a tree. Every move you could make is a branch; every reply your opponent could give grows another branch from it. "Do not just look at your move," Arbor said. "Look at what they will do *after* it – and what you will do after *that*."

This is the habit under every other idea in this book. Before you drop a disc or place a stone, ask the one question strong players never skip: *if I play here, what is their best answer?* A move that looks great until you picture the reply is a trap you are setting for yourself.

Say it out loud: *Before I move, I picture their reply.*

You do not need to read ten moves deep. Even looking one move ahead – "if I go here, they go there, and then..." – turns most beginner mistakes into good moves.

Your turn: The "Think Ahead" workbook pages show a tempting move. Picture the opponent's reply first – is the move still good?

Looking ahead is slow at first and feels like extra work. It is the single habit that improves your play the fastest.

Chapter 2 – Two Threats at Once

Twain plays the move every grid game rewards most: the one that makes **two threats at the same time**. In Connect Four, that is a move creating two different ways to line up four – the opponent blocks one, you win with the other. In Gomoku, Domino calls it a "double" – two open rows of four at once, unstoppable.

"One threat, they block," said Twain. "Two threats, they cry."

The whole art is finding the square that opens two winning lines. It is the fork of the grid games, and it wins more games than any flashy single move.

Say it out loud: *Make two threats at once – they can only block one.*

Your turn: The "Two Threats" pages ask you to find the drop or placement that creates two winning lines at the same time.

A double threat is the most satisfying move in these games. Train your eye to hunt for it every turn.

Chapter 3 – Keep Your Options Open

Mobi cares about one thing: how many good moves you have left. In Reversi especially, the player who runs out of good squares is forced to play a bad one – often handing the opponent a corner. "Do not gobble everything early," Mobi warned. "The player with more choices later usually wins."

This is why grabbing the most pieces early in Reversi is often a *beginner's* mistake – it can leave you with no safe moves at the end. Strong players keep their options open, staying flexible, forcing the *opponent* to run out of good moves first.

Say it out loud: *Keep more good moves than they have – flexibility wins.*

Your turn: The "Options" pages show a Reversi position. Which move keeps you the most safe choices next turn?

It feels backwards to not grab everything you can. Learning when to hold back is a real leap in skill.

Chapter 4 – Own the Corners

Ballast knows the safest real estate in Reversi: the **corners**. A piece in a corner can never be flipped – nothing can outflank it, because it sits at the edge of the world. Flank, who flips whole rows of pieces by trapping them between two of their own colour, can never touch a corner.

"Give me a corner," said Ballast, "and I own that whole region forever."

So in Reversi, playing well means fighting for corners and avoiding the squares next to them (which hand the corner to your opponent). A few safe corners are worth far more than a big pile of flippable pieces in the middle.

Say it out loud: *Take the corners – they can never be flipped.*

Your turn: The "Corners" pages show a Reversi board. Which move wins a corner – and which one accidentally gives one away?

The corner idea flips how the game feels. Once you value corners over piece-count, your Reversi jumps a whole level.

Chapter 5 – Build a Bridge

Rowan wins by **connecting** – extending a chain of pieces from one side to the other. In Hex, Causeway teaches the cleverest connection of all: the **bridge**, two pieces placed a knight's-hop apart with two empty squares between them. The bridge cannot be cut – if the opponent plays one gap, you play the other, and your chain stays joined.

"A bridge looks like a gap," said Causeway, "but it is really a link the enemy cannot break."

Playing well in a connection game means building these unbreakable links, planning your chain from edge to edge, and blocking the opponent's chain at the same time.

Say it out loud: *Link your pieces with bridges the enemy can't cut.*

Your turn: The "Bridge" pages show a Hex position. Find the bridge move that connects your chain safely.

Bridges feel like magic once you see them – a connection hiding in an empty space. Spotting them is the heart of Hex.

Chapter 6 – Count Who Moves Last

Oddwin plays the deepest game of all: **parity**, the counting of odd and even. In Dots and Boxes, the winner is usually decided long before the last box – by who is *forced* to draw the line that hands over a chain of boxes. It all comes down to counting whether the number of moves left is odd or even.

"I am not guessing," said Oddwin. "I am counting who runs out of safe moves first."

The winning trick in Dots and Boxes is the "double-cross" – deliberately giving up two boxes to keep control of who moves next. It feels like a sacrifice; it is really parity in action.

Say it out loud: *Count who is forced to move last – that is who wins.*

Everything in this book meets here: think ahead (Chapter 1), force choices with double threats (Chapter 2), keep your options open (Chapter 3), hold the safe squares (Chapters 4-5), and count the parity to the finish.

Your turn: The "Who Moves Last" pages show a Dots-and-Boxes endgame. Find the move – even a sacrifice – that leaves the opponent forced to open the big chain.

Parity is the hardest idea in this book, and it is fine if it takes a while. Counting one step further than your opponent is exactly what getting good feels like.

Keep playing at spark-and-anvil.org – the trainer runs these ideas as live positions, with the cast beside you.

Keep playing

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