MATERIAL CONSTRAINTS

Each kind of material includes a basic suggestion for a starting point and several possible uses of that material in a game. You do not have to pick one of these uses. Feel free to mix and match, make up new mechanics, and take ideas from other materials too!

CARDS

An incredibly flexible game component. Don't get too complicated!

Start with:
Four sets of cards with numbers 1-10 on each set.

- *Use an existing deck*—Try a standard deck of cards; or the number cards from Uno; or a deck of Tarot cards
- *One or two pieces of info*—Limit each card so that it has just a few pieces of information on it, like color and number
- *Different kinds of cards*—Some cards might be special cards that break the usual format; horizontal instead of vertical?

- *Shuffle and sort*—Cards can be randomized easily, then put into stacks, hands, or spread out
- *Collect sets*—A very powerful mechanic; build melds, sort by category, or construct Poker-style hands
- *Two-sided cards*—Perhaps both sides of the cards are relevant to the gameplay
- *Cards as units*—Each card is a creature, or an emotion, or a classic work of literature

- *Cards as identity*—Each player gets a card that gives them a unique ability or assigns them to a team
- *Cards as secrets*—Nobody knows what is on your card or in your hand, but they wish they did!
- *Cards that build*—A slit cut into the cards can make them building materials; see the Eames's House of Cards

GRID

The terrain or board for your game.

Start with:
A 6×6 grid of squares with nothing special on any of the squares.

- *Classic grid*—A grid of squares. Pieces move on and occupy squares
- *Intersections*—Perhaps the pieces move on the lines and intersections, instead of or in addition to the squares
- *Missing parts*—Some of the lines or squares are missing, leading to a more mazelike space

- *Varied terrain*—There are a few different colors of spaces, each with different game effects
- *Shapes that are not squares*—The grid is made of hexagons or triangles or something else
- *A network of paths*—Rather than a grid, the game spaces are connected in more linear ways

- *Modular grid*—The board is divided into sections which can be moved or reconfigured
- *Special spaces*—There are a few key spaces that must be occupied or captured
- *Territory*—Parts of the board are owned by players, for the whole game or just at the start or end

DICE

Classic randomization device. Pro tip: avoid roll-and-move.

Start with:
One 6-sided die for each player.

- *Roll to do something*—The die number is how well you succeed at something
- *Roll and choose a die*—Roll a few dice but only choose one of them as your action
- *Sort*—After you roll them, sorting dice into groups or an order depending on what you rolled
- *Assign dice*—Roll dice, then choose how to use the number on each one in different ways

- *Match*—Try to get particular combinations of results on multiple dice
- *Poker style*—Roll a handful of dice, then choose to roll some or all of them a second time
- *Real-time rolling*—Rolling the dice as quickly as possible to try and get a particular result
- *Dice as units*—Dice can be pieces on a board or map

- *Information storage*—The number currently facing up can be used to store information
- *Design a hand of dice*—Before the game or between rounds, strategically choose which dice to roll
- *Replace the faces*—Instead of pips, change the faces into icons or other non-numerical elements
- *Hidden dice*—You keep the results of your die rolls secret

TOKENS

A subtle and versatile game component.

Start with:
50 tokens that are divided into 5 colors.

- *Instead of keeping score*—Your pile of tokens is how close you are to victory
- *Different kinds of tokens*—The size or color determines how they are used in the game
- *Collecting sets*—Try to corner the market on one color type; or collect Poker-style matches
- *Tokens as units*—Tokens are fruits, or musical notes, or unconscious desires

- *Bag them*—Put all the tokens in a cloth bag and pull out a few each turn
- *Secret tokens*—Keep your tokens hidden from other players
- *Social currency*—Your tokens are your status in the game; perhaps you can pass them when others aren't looking
- *Tokens as money*—Use them to buy things, bid for other items, or just amass your wealth

- *Blind bidding*—Each player selects tokens to bid each round without knowing other players' bids
- *Physical actions*—Depending on the tokens, they can be tossed, flicked, or stacked

TILES

Flat, stackable pieces that can be background or foreground.

Start with:
A set of Dominoes. Or a set of Scrabble tiles. Or the tiles from a Rummikub game.

- *Different shapes*—Tiles do not need to be square; they can be hexagonal, round, or irregular
- *Multiple shapes*—A variety of forms, each shape with a unique game meaning
- *Arrange into larger shapes*—As with Tangrams, build a larger object out of tiles

- *Shuffle and turn over*—Tiles can have different information on the back; you turn over one new tile each round
- *Arrange in front of you*—Keep your tiles to make sets or words or patterns
- *Stack them vertically*—Your tiles become a pile; perhaps the order of the stack is important

- *Make a board*—Each tile becomes part of a larger game board or space
- *Physical actions*—Tiles can be great as pucks or other things to shoot and flick

CARDS	CARDS
GRID	GRID
DICE	DICE
TOKENS	TOKENS
TILES	TILES

Structural Constraints

The first game listed after each structure is required—you must play it. Other listed games are optional, recommended games.

Randomized Resources

Qwixx, Roll Through the Ages, Railroad Ink, Epic Spell Wars of the Battle Wizards, The Cartographers, Dice Miner

- A random mechanism gives players resources to use
- This might happen at the start of the game or every turn
- A challenge is making sure the game isn't just a random state machine but has interesting choices
- Tip: give players more than one way to make use of the resources they get

Hidden Information

Codenames, Enchanted Forest, The Resistance, Masquerade, One Night Ultimate Werewolf, Stratego

- The core of the game is that some players know things that others do not
- The information might be secret roles, or information about a map or resources
- How do you embed meaningful choices so that the game is more than just guesswork?
- Tip: as the game proceeds, make more of the hidden information visible so that the game becomes less random

Victory Points

Sushi Go, Splendor, Ticket to Ride, Tokaido, Roll Through the Ages, Settlers of Catan, Lords of Waterdeep, Kingdomino

- Players get points during the game in some way
- Whoever has the most points at the end of the game wins
- Many of these games rely on "set collection"—gathering the right elements together in order to get the most points
- Tip: give players a variety of ways to earn victory points. Can you create multiple paths to victory?

A Ticking Clock

Forbidden Island / Forbidden Desert, Pandemic, Escape: The Curse of the Temple, Heads Up, Clank, Boggle, Fortress

- Something moves the game steadily toward a conclusion
- Are there ways for players to pause or even reverse the clock?
- What happens when it reaches zero?
- Suggestion: Don't make the clock an actual real-time clock, make it tick down once per turn or round

Shared Ownership

Hanabi, Dvonn, Zertz, Colossal Arena, Cheaty Mages, El Grande, Tiny Epic Kingdoms, Acquire

- The main units or elements in the game are not owned or controlled by a specific player
- Anyone can jump in and take charge of the elements when it is their turn to play
- The key is making sure that things still can advance toward an endstate
- For example, make sure that it is not easy to simply undo what another player did

Modular Units

Cathedral, Blokus, Quantum, Galaxy Trucker, Dominion, Checkers ("kinging" a piece), Tiny Epic Quests

- Simpler parts combine into more complex wholes
- How do they fit together and what do you do with them?
- How different can you make the final combinations of parts?
- Tip: this can quickly get overcomplicated; start with a simple system and a handful of elements to combine

Repeating Short Rounds

Zombie Dice, 7 Wonders, Dixit, Resistance, Codenames, Skull

- The game plays from start to finish in a few minutes or less
- Then players get to prepare in some way before the next round starts
- Are players accumulating something between rounds?
- Are they making decisions about their setup for the next round? Or somehow improving their position?

Randomized Field of Play

Labyrinth, Forbidden Island / Forbidden Desert, Settlers of Catan, Set, Five Tribes

- When the game starts, some or all of the board, terrain, or starting conditions are randomized
- Ideally, each game feels very different; different starting combinations lead to different kinds of games
- Make sure that no one player gets a big advantage due to random luck
- Suggestion: make your game short so that you have time to playtest lots of different permutations

Real-Time Play

Magic Maze, Falling, Space Alert, Galaxy Trucker, Set, Escape: The Curse of the Temple, Pit Crew, Space Cadets Dice Duel

- Players do not take turns. They take actions (or choose to wait) whenever they want
- Build in constraints on player action, such as using only one hand, or acting once per round
- Avoid full-body sports or overly chaotic play
- The challenge here is to make a game that is real-time but still focused and strategic

Build a Network

Blokus, Waterworks Burrows, Ant Trails, Ticket to Ride, Power Grid, Tsuro, Twixt, Patchwork, Kingdomino

- Tiles or cards or board elements are used to create interlocking paths, pipes, roads, etc.
- It can be a single common network or players can each have their own network to build
- Perhaps players travel along the network, or try to build the longest or biggest network
- How do you win? By getting rid of your network elements? Or building up to a particular size?

Randomized Resources	Hidden Information
Victory Points	A Ticking Clock
Shared Ownership	Modular Units
Repeating Short Rounds	Randomized Field of Play
Real-Time Play	Build a Network