

## Fivefold – Game Design & Antigravity Execution Spec

### 1. Game Definition

Fivefold is a daily, single-player word game where players submit as few five-letter words as possible to consume every letter on a 5x5 board at least once.

### 2. Core Objective

Use the minimum number of valid five-letter words such that all 25 letters on the board are consumed at least once. Lower scores are better. Optimal play results in a score of 5.

### 3. Board & Letter Model

The board is a 5x5 grid generated by selecting five valid five-letter words, combining their letters, and scrambling them. Letter position is cosmetic. Letters are consumed by frequency. Unused letters are always consumed before already-used ones. All letters must be highlighted to finish the game.

### 4. Word Submission Rules

Players use an onscreen keyboard. Exactly five letters are required before submission. Words must be valid dictionary entries and unique. Invalid or duplicate words flash red and do not count.

### 5. Scoring

Score equals the number of accepted words. Only valid, unique words increment score.

### 6. End Condition

The game ends immediately after a valid submission consumes the final unhighlighted letter.

### 7. Visual & UX Requirements

- Highlight consumed letters
- Submission history list
- Submission counter
- Red flash on invalid input
- Clear and delete controls

### 8. Puzzle Generation

Source words must be valid dictionary words. No overlap constraints. Puzzle is always solvable by construction.

### 9. Determinism

Daily puzzle shared by all users. One attempt only. No resets.

### 10. Non-Goals

No hints, leaderboards, sharing, timers, accounts, backend services, or analytics SDKs.

### 11. Antigravity Agent Plan

Spec Agent: PRD and acceptance criteria

UX Agent: Mobile-first flows and wireframes

Frontend Agent: React + TypeScript PWA

Game Logic Agent: Puzzle generation and validation

QA Agent: Test matrix and automation

Release Agent: CI and static deploy

### 12. Definition of MVP Complete

Playable daily puzzle, visual letter consumption, final score, and enforced one-shot behavior.