

Sunshine GDD

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High Concept

You play as the Sun trying to melt every frozen tile in a 5x5 isometric grid in only a few taps. This casual puzzle game requires you to think about how to use your sunrays wisely, tapping in tiles that will create fun chain reactions that can clear major areas of the grid. Melting the whole map will result in a win and a lovely spring environment.

Game Design

- **Main Mechanic: Tap to Melt a tile:** Tapping a tile will melt just that one tile, so try to tap tiles that will cause chain reactions.
- **3 Tap Limitation:** The player has a limited amount of moves allowed to clear the map, if you make all 3 moves and a frozen tile still remains, you lose and must restart the puzzle.
- **Special Tiles**
 - **Tree Tiles:** Tapping a frozen tree tile will warm up all adjacent tiles surrounding it. Can warm up to 3x3 tiles surrounding it. The tree will sprout leaves and bloom.
 - **River Tiles:** River tiles are long horizontal or vertical frozen rivers that stretch across the grid. Warming up a river tile will melt the entire river. Will melt with a satisfying ripple effect.
 - Rivers will melt all adjacent tiles
 - **Snowmen Tiles:** Tapping a snow man tile will result in the chunks of the snowman rolling in a cross pattern vertically and horizontally to the edge of the map. This is a great way to set off chain reactions all over the map.
 - Trees and other snowmen will block snowballs
 - When snowball hits other snowman, the snowball will break, but trigger the snowman it hit
 - When snowball hits tree, it activates the tree but breaks
 - **Flower Tiles:** Flower tiles are the most complex. You can see frozen flower tiles based on a little frozen bud.
 - Tapping a **Frozen** Flower tile will warm up that tile and the flower will grow a little.
 - Tapping a **Budding** Flower tile will cause a chain reaction that can **Melt** and **Bloom** all adjacent flower tiles. This can cause a chain reaction that blooms large patches of flowers instantly.
 - **Ice Blocks:** Large ice cube tiles that block snowballs

- Ice blocks get destroyed after being melted twice (Frozen, Cracked, Melted) Similar to flower functionality
 - When melted it just turns to a normal grass block
 - Can only be melted from sunbeams, snowballs, and trees.
- **Grid**
 - Currently the grid being 5x5 makes sense to keep the puzzles tight and not too complicated. Potentially puzzles could vary in grid size.
 - Really the grid size just needs proper testing to determine which size is most optimal.
 - Hovering over a tile on the grid will cause it to grow upwards slightly which will be a cool effect to add some juice. The perspective of the grid will be at a slight angle so you can see that the tile grows upwards a bit, with the dirt just extending upwards using a sprite mask.
 - All sprites will be the full height but using a mask each tile will look flat by default.
- **Daily Puzzle**
 - We could have a daily challenge that is very difficult and a set of levels to play through that have onboarding with slowly increased difficulty like most match 3 mobile games.

Major Systems

- **Level Creation and File Reading:**
 - Levels could be easily created en masse using spreadsheets and building a tool that reads them in and converts letters/symbols to tile type
 - **Example from first paper prototype level**
 - T,X,F,F,F
X,X,F,F,F
S,X,X,X,X
F,F,F,X,X,
F,F,F,X,T
 - X: Blank, T: Tree, F: Flower, S: Snowman, R: River
- **Melting Mechanic:**
 - Melting a tile will result in a sprite swap from frozen to spring mode, and also any resulting gameplay reaction based on what tile was melted.
- **Checking Remaining Taps: Win/Lose Condition**
 - If all tiles = spring, then YOU WIN
 - If tapsRemaining = 0 AND frozenTilesRemaining > 0 : YOU LOSE
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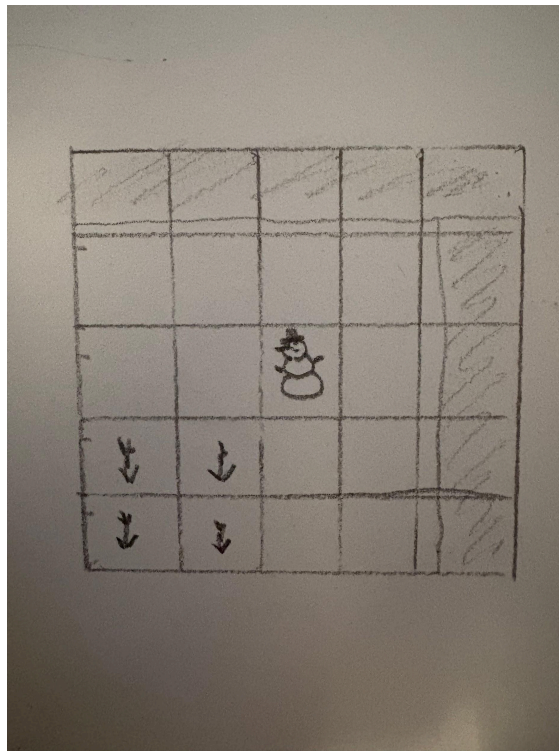
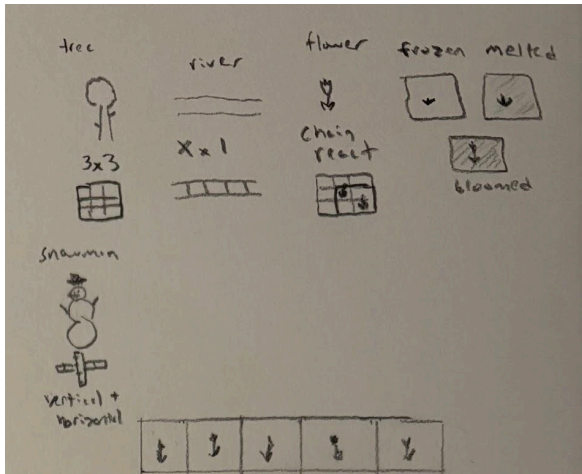
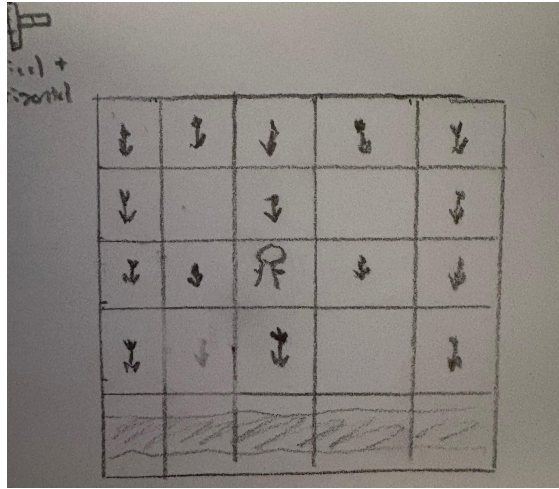
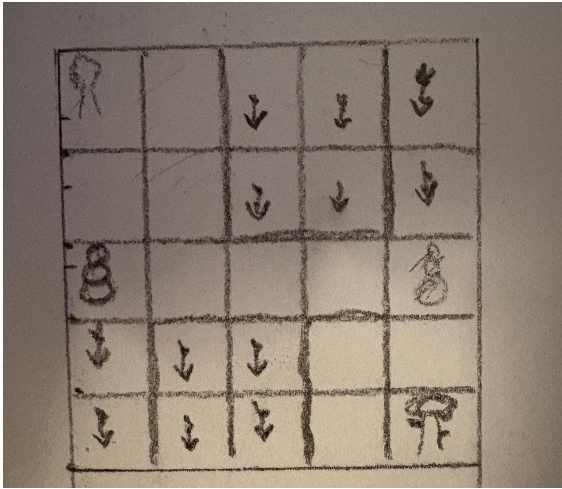
Game Type: A Casual Puzzle Game

- Puzzle:
 - Original puzzle mechanic (must be clearly distinct / unique in the space)
 - Each puzzle level has a **single solution**.
 - Players must use their brain (cognitive skill) to solve the puzzle.
 - avoid trivia - the player should be able to reasonably deduce the answer without any specific / cultural knowledge
 - minimal luck - a teeny bit of luck is okay (like first guess in Wordle or Minesweeper), but the player should generally be able to progress without having to guess.
- Content Requirement:
 - **10 levels** of puzzle content as a proof of concept - played in order (levels 1-10).
 - **Onboarding:** You do need to teach the game, but how you do it is up to you!
 - Option #1: "tutorial" level that precedes level 1
 - Option #2: Teach the game over the 10 levels

Target: Cross Generational

- Can you make a game that is fun/accessible to players of very different ages?
- To test this, we will run some **async external playtests** during sprint #2 with volunteer groups. I will try to recruit at least two of the following groups:
 - Young students (~middle school aged, so they can read)
 - adults who love daily puzzles (non game-dev)
 - older/retired players

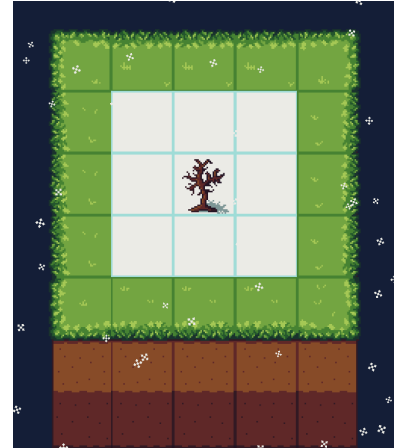
Paper Prototype Example Levels:



Level Designs

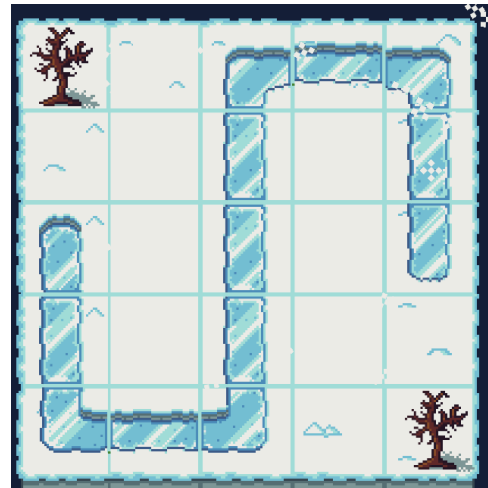
Tutorial1:

- Moves:3
- Solution: Click Tree
- Intention: Easy tutorial to learn main mechanics, and how trees function



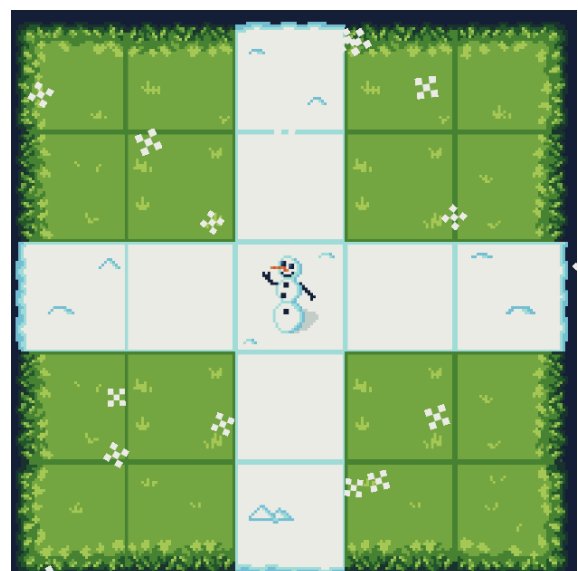
Tutorial2:

- Moves: 3
- Solution: Click any river tile, then click trees
- Intention: Teaches how river tiles work. Originally trees could get triggered by rivers, but i moved them to the corners as it caused some confusion



Tutorial3:

- Moves: 3
- Solution: Click snowmen
- Intention: Teach players how snowmen work, had to simplify this tutorial down

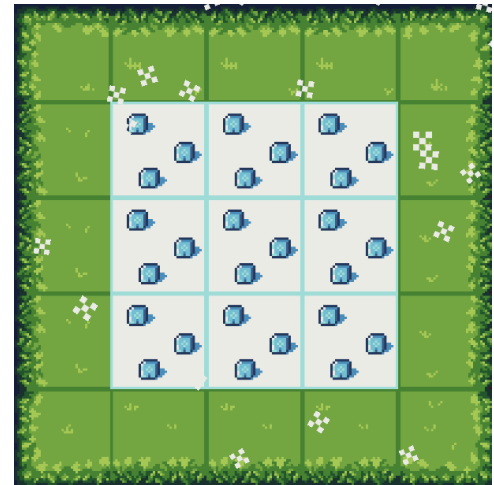


Tutorial 3.5:

Moves: 3

Solution tap a flower twice

Intention: Tutorial 4 was supposed to be the intro to flowers but blending multiple special tiles proved to be confusing for players who haven't used flowers yet



Tutorial4:

- Moves: 3
- Solution: Tap river to melt top row of flowers, then tap snowman which will melt all flowers
- Intention: Teach players how flowers work in stages, then show how other tiles can interplay



Tutorial5:

Moves: 2

Solution: Click Tree, then click a melted flower

Intention: Teach player levels can have less than 3 moves, final tutorial so this one is meant to be a little harder, and also teach player more on how to use flowers.



Level 1:

Moves: 2

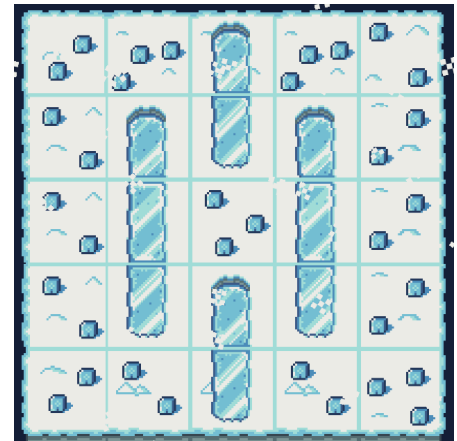
Solution: Click a snowman, then click flower



Level 2:

Moves: 4

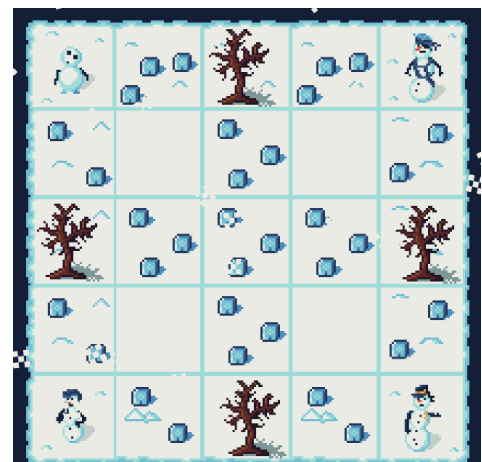
Solution: Tap any river tile, then tap left flower patch, then right flower patch, then middle flower



Level 3:

Moves: 6

Solution: Tap all 4 Trees, then tap 1 snowman, then tap middle flower



Level 4:

Moves: 4

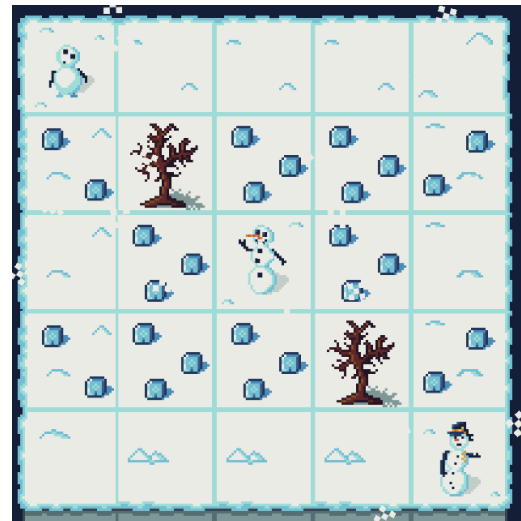
Solution: Tap 2 Flowers adjacent to a snowman, then tap both snowmen



Level 5:

Moves: 4

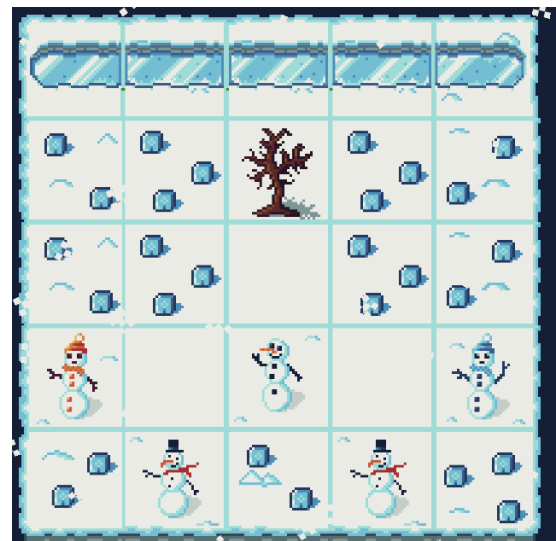
Solution: Tap both corner snowmen, then tap both trees.



Level 6:

Moves: 2

Solution: Tap middle snowman, then one of the bottom snowmen



Level 7:

Moves: 2

Solution: Tap top snowman, then bottom snowman.



Level 8:

Moves: 3

Solution: Tap an outer snowman, then an inner snowman, then the tree

