Testing

Learnings from MA:

* Static tiles (obstacles) used very often
* Movable obstacles rather rare, especially in swapping games
* In collapse levels, a lot of space taken by obstacles (~25%)
* Usual board size 7-9 wide and 9-12 high so we can stay with 8x10 as average
* In collapse levels, large variation of matchable space => could test collapse with obstacles and vary obstacle count to see effects
* Generally, varying number of obstacles present seems to be a good way to test scenarios
* Late game often combines obstacles with removable obstacles as a level goal
* Toy blast, a collapse game, uses overlays (blocked pieces and shielded pieces) a lot
* Spawners (slime blocks) are used a lot by both styles in the later levels
* Collapse levels usually have lower count of special tiles
* Normally just one level objective
* General numbers for special pieces: spawners (slimes) 1-5, obstacles, breakable pieces and overlays 5-30, special tiles (time bombs) 1-10
* Will set test-number for each piece as follows: spawners 1/3/5, obstacles etc. 5/10/20, special tiles 1/5/10

Scenarios to test:

Scenarios were chosen based on own research on real levels in candy crush saga, bejeweled, and toy blast, and through consideration of the information in the MA.

Swapping:

* Score without anything else (bombs active) x
* slime + blocked pieces (jellyfish goal) x
* slime + blocked pieces + removable obstacle x
* time bomb + removable obstacle x
* locked pieces + removable obstacle x
* time bomb + locked pieces + removable obstacle x
* shielded pieces + removable obstacles x
* shielded pieces (shielded pieces jellyfish) x
* removable obstacles x
* obstacles (score) x
* removable obstacles + obstacles x
* movable obstacles (score) x

Collapse:

* score without anything else (bombs active) x
* full clear without special tiles x
* removable obstacles x
* slime + blocked pieces x
* slime + blocked pieces + removable obstacle x

**Start of testing**

Collapse clear: consistent in time and move count, rather simple, most thought goes into collapsing the right pieces to create more fields of colour

Collapse score: pretty braindead, and bombs are very useful as you don’t have to match a bomb to make it explode, you can just click on it

Collapse removable: more interesting and some more thinking involved, low obstacle count way too easy, medium and high count seems to not have too much of an effect

Collapse slime blocked: blocked pieces were jellyfish. Fun, more challenging than scenarios before. Difficulty pretty consistent between medium and high piece counts, though low piece count significantly easier

Collapse slime blocked removable: Surprisingly easier than only slime and blocked on every level.

Swapping score: move count and score varies a lot more than with collapse. Most likely because creating matches is more complex with this control type

Swapping obstacles: More interesting than only score. Still not hard, but adds a lot more thinking and is thus more engaging. Becomes highly dependent on RNG with high obstacle count

Swapping moving obstacle: also RNG-dependent, though not as much as static obstacles at high counts. Also causes very interesting board states due to the obstacles moving and being affected by gravity. Feels trickier than static obstacles. At lower counts pretty much feels like normal score though

Swapping removable: Gets very difficult on higher obstacle count. Engaging to play though. Can imagine this getting easier and more engaging with more mechanics added

Swapping removable + obs: More difficult than just removable, though depends on where exactly the obstacles are placed.

Swapping shielded: used 1/5/10 pieces. Very difficult, and dependent on RNG because of the dependence on bombs in the right positions. Strategic swapping required. On highest shielded count, closest to victory was 3 pieces left

Swapping shielded removable: literally almost impossible without a lot of luck on high piece counts

Swapping blocked removable: probably harder even than shielded pieces, but felt more manageable somehow

Swapping blocked removable time: Time bomb had 10 turns timer. Really difficult as well. Blocked pieces in swap is just a very difficult goal, and removing the bombs gets very difficult in high piece count.

Swapping slime blocked: Turns out blocked pieces are just really difficult to remove without gadgets. Very difficult, and slimes are also more of a threat in swap.

Swapping slime blocked removable: easier than just blocked, maybe because of lower number of blocked pieces.

Swapping time removable: Difficult, but not too much, so was actually pretty fun.