# Setup

1. Shuffle the Monster, Loot, and Treasure Decks.
2. Place two Treasure Cards, face up
3. Place two Monster Cards, Non-Monster Cards go to bottom of deck

Optional: Set Up Three Bonus Souls, from Initial Soul Deck

Character distributions: Multiple Options

Give out 3c and 3 Loot Cards

Cain Starts, alternatively implement rolls

Character Cards are deactivated, Item Cards are activated

Special Condition: Cards not picked by Eden, go to bottom of the deck

Special Condition on Eden: Destroy this always fizzles on Eden, meaning the requirement for

# Card Types

Treasure Cards:

1. Whenever Card instructs “Gain Treasure” Gain from top of Treasure Deck
2. Activated Items: Those
3. Paid Item Effects can be used on a deactivated item
4. 1st type of passive: Condition 🡪 triggers passive effect,
5. 2nd type of passive: modify game state permanently
6. Active Items can have passive effects
7. Cursed items are not considered curses, don’t apply same functions to them

Loot Cards:

Trinkets can be butter beaned. An effect: “call treasure form” needs to be put in the stack, and this effect is susceptible to fizzling, through things like butter bean.

Trinkets need to be implemented so that they carry Loot Deck properties while unplayed and Treasure Deck properties while activated.

Ideas for Solutions: Create Proxy Treasure Card that can be called when Trinket Loot played. When Proxy Treasure Card Destroyed Call back Loot Card and store in Discard Pile. Proxy contains reference to original Loot.

Alt Solution instead of subclasses, make Monster Card etc… Interfaces. Apply both Treasure and Loot properties. Discard piles will still need to be correct.

Monster Cards:

1. Active player receives rewards from Monsters, active player resolves non monster cards.
2. Implement appropriate typing for Boss/ Epic Boss/ Regular Monsters, to differentiate between them.

Character Card:

1. Generalise application of effect cards on character. Some characters have different effects.
2. Find way to link characters and starting items if necessary.

Bonus Soul:

1. Need to find a way to keep checking whether conditions for bonus soul triggers have been met.
2. Idea: have pool of effect triggers. Say soul of greed is only checked if there is a change in money
3. Bonus souls don’t have discard piles, they get removed from game if discarded.

# Turn Structure

Some sections don’t use the stack, meaning you can’t react to whatever happens in them.

All players need to pass on reacting to the stack for the turn to move on.

1. Starting Phase:

1.1 Recharge character card and active items of active player (not on stack)

1.2 Add Start of Turn Effects on stack

1.3 ActivePlayerLoot(turnStartLoot) is placed on the stack

1. Action Phase:

Active Player may choose to do any number of four things once:

* Play 1 Loot Card (add to stack)
* Add 1 “ActivePurchase” on stack. (Purchasing can’t be used to react to other things on the stack)
* Add 1 “DeclareAttack(target)” to stack (Attacks can’t be used to react to other things on the stack)
* End turn (move onto next phase)
* Additionally depending on item, active items can be activated

1. Ending Phase:
   1. End of turn effects are added on the stack
   2. Heal all players and monsters to full health (not put on stack)
   3. Any Effects that last until the end of turn wear off (not put on stack). This phase is where a general game state update will be done to check whether certain buffs should still apply.
   4. If you have more than 10 loot cards, discard down to 10 (not on stack)
   5. Pass the turn to the player to your left (not on stack)

# The Stack

Minor things to remember:

1. When you have a card saying choose effect, the player playing the card chooses, which card goes on the stack.
2. The following effects use the stack also: (implement separate effects for said events)
   1. Dice rolls
   2. Purchasing
   3. Attacking
   4. Combat Damage
   5. Monster Death
   6. Refilling Slots and Decks
   7. Encountering Non-Monster Cards
   8. Player death
3. Butter bean can remove any card from the stack, once it itself resolves. Remember that certain stack events are tied to each other, like items that destroy themselves to activate an effect. When fizzling all stack elements originating from the same card need to be removed.
4. First in Lat Out structure

Priority:

At any point a player has priority, they can either play effect or pass priority.

Active player gets priority, he can either

1. Add effect to the stack
2. Pass priority to the player to the left

Once priority has been passed by all players in succession, top card on the stack resolves,

Once an effect in the stack is resolved, active player gains priority again.

Only active player may add to an empty stack.

Item triggers and their order:

When an effect is triggered, it is added to the stack. If multiple effects are triggered at the same time:

1. Monster Card effects go on the stack first, Monster death too. If more than one active player chooses order.
2. All other effects go on the stack in order of turn, starting with the active player. Otherwise, players get to choose which order their own effects go onto the stack. (Players own their death as an effect)
3. For effects not belonging to anybody, they belong to the active player

A few things to remember: Triggers need to resolve before activating passive items. i.e players death needs to trigger in order to activate passive items that react to that.

If one declares an attack or purchases on a monster or an item respectively, and the respective card gets removed from play, then the declaration fizzles. Does not reduce the players permitted attack count.

Combat damage resolving must be conditional on the monster or player being still alive. Implement appropriate check to fizzle otherwise.

# Dice Rolls

A normal die roll:

1. When a dice is rolled, initial result is added to the stack.
2. +/- dice roll effects, immediately after (need to memorize who rolled the die)
3. Active player gets priority
4. Once modifying effects resolve, the original die value is changed, meaning no other die goes onto the stack.

Once roll resolves:

Dice resolves with modifiers applied to it,

If Roll is for an effect, the effect is added to the stack

If the Roll is an Attack Roll, Combat Damage is added to the stack.

# Purchasing

Purchase can only be initiated with an empty stack.

Refill effect put on top of stack, once slot emptied

Once treasure deck, runs out of cards, immediately reshuffle discard pile. This can happen in the middle of other effects. (not stackable)

Attention: think of how peeking is implemented. (If card says look at the top 5 cards of a deck, and that deck only has three, are you drawing three cards, reshuffle and then drawing another 2 and then putting them back or are you just looking at the first. Georgi: first option seems more faithful to the game.

# Attacking

Process of attacking:

1. Declaration of attack placed on stack.
2. Once Declaration resolves move on to attack
3. If attacking top monster, attacking player reveals card, else skip to step 6
4. If monster card. Attacking player places it into an active monster slot of their choice (if able, some cards can’t be covered) skip to step 6
5. If non-monster card, the player must play the card (place it in an active monster slot, to potentially cover up other effects), effect gets added to stack, active player gains priority. (Playing said card, uses this player’s attack for this turn)

Steps below only terminate through resolving player death or monster death, as well as some other effects like end turn.

1. Player makes attack roll, adds it to stack (we need to be able to differentiate between attack roll and non-attack roll)
2. If resolved roll, is lower than the monster’s evasion, combat damage to player is put on the stack.
3. If resolved roll, higher or equal than monster’s evasion, combat damage to monster gets put on the stack
4. Combat damage resolves
5. Effects triggered by resolving combat damage put on stack
6. Go back to step 6

Once combat is terminated

1. If monster dies, put Monster Death on stack,
2. Monster Card, then rewards, then monster’s own death trigger effect, remaining effects are put in stack in order, only then does the active player get priority. (when the monster card resolves, it is being either discarded or gained as a soul, depending on the monster.
3. After resolving, if possible monster card is gained as soul
4. If slot is empty, but refill on stack.

If both monster and player death are to be put on the stack, as a result of an effect resolving at the same time, resolve monster’s death first.

Number of Attacks:

1. Forced attacks deplete the player’s ability to attack,
2. Attacks can be forced even if ability to attack normally is depleted.
3. Killing monster outside of the framework of an attack does not deplete player’s ability to attack again.
4. It would be easier to introduce variables, like Max Attacks, and AttacksPerformed, over variables like AttacksLeft

Some other scenarios:

1. Monsters like Stoney cannot be attacked, if revealed through declaration of attack on the top, then fizzle the attack and deplete character’s ability to attack.
2. Monsters like Stoney that can’t be attacked, can still be damaged through other effects.
3. Can’t attack top, if all monster cards on the field can’t be covered.

# Refilling Slots

1. Refills happen individually, no point in adding refill(int k) functions.
2. Player Turn can not terminate before all slot’s have been refilled.
3. Once player death resolves, and at the start of the ending phase construct a check to refill unfilled slots.

# Player Death

Player Death Resolve Sequence:

1. The Player discards any curses afflicting them (not stackable)
2. The Death Penalty is put on stack
3. Before Paying Penalties effects are added to the stack
4. Active Player gets Priority
5. Once Death Penalty is resolved
   1. Discard 1 loot card if able
   2. Lose 1 c if able
   3. Destroy one non-eternal item you control if able
   4. Deactivate items
   5. End turn go into ending phase

If player Death prevented, then return health to before lethal damage was taken; Introduce variable to store health value before lethal damage, introduce function checkLethal() to see if damage would be lethal and adjust variable appropriately.

# Bartering

Optional Feature to Consider

Introduce ability to exchange c

Penny exchanges through bartering don’t use stack, and don’t activate any of the effects

# Fizzling

Fizzling removes effect from stack, and discards if this was the only instance of the card appearing in the stack.

Destroying an item does not fizzle its effect

Player must declare targets. If resolution of effect becomes impossible the effect fizzles. Still uses up the resource though.

If cards contain a “destroy this” effect to activate their actual effect and the card is destroyed beforehand, then the actual effect can not be activated. This is good for us, since all we need to do is add the actual effect, make it unreactable, add the destroy this effect, which checks if card is already destroyed and destroys card if able, as well as sends out notification that the second effect can be resolved. The resolution of destroy this should be unreactable. Since it is one effect.

A failed declaration to purchase does not fizzle ability to purchase unlike the ability to attack.

If player does not have enough coins to resolve purchase, fizzle declaration

If combat is ended, the attack should fizzle, as well as the player’s ability to attack depleted.

# The Room Deck

Optional deck

Start Game with one room slot.

There are global effects, that immediately get put on the stack once card revealed, some room cards are optional interactive effects, the player can trigger at will, some room cards are global passive buffs or debuffs.

If a monster has been killed, the player can choose to discard a room card and reveal a new one at the end of their turn.

I don’t know whether that choice is reactable, the refilling definitely is. We need to introduce variable to keep track of whether a monster has died this turn.

# Souls

If player gains four souls, then the stack is cancelled and the game ends.

Think of ways to handle extraordinary souls:

1. The lost: character card itself is a soul card
2. The bone when discarded is removed from game
3. Bonus souls get removed from game when discarded

# Bonus Souls

Make sure to mark Guppy items as such, alternatively just have the trigger for guppy’s soul reference the names of the cards it will accept.

# 2 Player Mini Draft

Alternative two player mode

Once a player is chosen to go first. Take three cards. Player1 choses one, Player choses from the remaining. Players each gain these cards.

Repeat but switch pick order.

Remainder items are placed on the bottom.

# Solitaire Mode

Set up game and select two characters along with their starting items.

Draw two separate hands of 3 loot cards and 3c, for each character respectively

Set up monster Deck and Treasure Deck as usual.

Place D8 with 8 upside

Play as both characters in non changing order.

When you complete both turns the D8 goes down by one.

If a character dies D8 ticks down by one.

You may not trade c or loot cards.

Collect 4 souls total to win.

# Key Terms

Only those that matter

Ambush: ambush cards can be drawn from the loot deck, when played they become monsters and are placed in a monster slot not being attacked. When this happens, the active player must make an additional attack on that monster that turn.

Event Cards: Event Cards are found in the monster deck but are not monsters and cannot be attacked. Event cards have a range of effects: good ones, bad ones and everything in between! Event Cards are put into a monster slot when revealed, take effect, and then are placed in discard when they resolved.

Indomitable: If an indomitable monster would be put in a monster slot, you instead expand the monster slots by 1 and put the monster in that new slot. Indomitable monsters can’t be covered.