

Title: Rainbow Card Game

Basic elements

- 2-4 people
- 50 cards
 - 4 black, 4 white, 8 red, 8 blue, 8 yellow, 6 purple, 6 orange, 6 green
- 40 coins
- Tube
- Box
- Key card with basic game info listed on it

Game Info

- Goal is to earn 10 coins first
- Each card has a value
 - Tier 4: White - 5
 - Tier 3: Black - 4
 - Tier 2: Orange, purple, green - 2
 - Tier 1: Red, yellow, blue - 1
 - White > black - 4 > 3
 - Black > o,p,g, r,y,b - 3 > 2,1
 - O,p,g > r,y,b - 2 > 1
 - R,y,b > white - 1 > 4
- In order to get coins, you want to be the last one to place a card down
- Tube signifies who plays the first card while the box signifies who started the round (think of it as markers similar to blinds in poker)

Start of game

- Each player starts with 10 coins
- Mutually decide who goes first. This person will get the tube and the box
 - Rock paper scissors, flipping a coin, etc
- Enter the Buy Phase
- Discard any unused coins
- Shuffle the cards that weren't bought and each player draws 4 cards

Buy Phase

- Players can only buy cards during the Buy Phase

- Buy cards that are in the discard pile
 - If it is the start of the game, players will buy the unshuffled cards since there is no discard pile/deck yet
- Use coins to buy cards
- Cards cost same amount of coins as how much they are worth
 - White = 5 coins
 - Black = 4 coins
 - Tier 2 = 2 coins
 - Tier 1 = 1 coin
- Whoever has the tube and box gets to buy first
- Players can only buy one card at a time
- Afterwards, the player to the right gets to buy next. Process continues until everyone is done shopping
- Enter the Round Phase

Round Phase

- Whoever starts the round (has both the tube and box) draws a card from the deck
- Players can play only one card at a time unless they are merging cards of the same tier
- Have to place cards in the order as listed above
 - Make sure tier 2 cards are components of the tier 1 card below
 - If red is placed, you can only place orange or purple
- Can combine cards to make higher tier cards
 - Two tier 1 = one tier 2
 - Red + blue = purple
 - Red + yellow = orange
 - Blue + yellow = green
 - Two tier 2 = 1 black
 - Can't make white or tier 1 colors
- If you run out of cards, draw the top card in the deck
- If you don't want to place a card down, then you're out
- Winner is decided when you're the last one to place a card
 - Winner gets amount of coins based on last card they played
 - If winner placed black, they get 4 points
- Discard all cards in the pile
- The person to the right of whoever started gets the tube
- Repeat until the tube reaches whoever has the box
 - Once this happens, whoever has both will pass it to the person to their right
- Once all the cards have been drawn from the deck, shuffle the cards in the discard pile and form a new deck
- Once each player has started, the round is over. Enter the Buy Phase again. Repeat process until someone wins

Summarized Design Values

Constraints:

- Each players can only spend 10 coins at the beginning of the game
- Players can only enter the buy phase after each round
- Players can only spend as many coins as they have
- Players can only buy one card at a time
- Players can only draw cards when their hand is empty or it is their turn
- Players can only place cards during their turn
- Players can only place certain cards down depending on the card that was played previously
- Players can only earn the amount of coins based off whatever card they played last

Actions:

- Spending coins to buy cards
- Drawing cards
- Playing or not playing cards
- Combining cards
- Earning coins

Goal:

- Earn 10 coins

Challenge:

- Being able to manage your points and buy the right cards
- Knowing when to place cards or save them

Skill/Strategy/Chance/Uncertainty:

- Purposely not playing cards to save them for special situations
- Buying certain cards
 - Skill/strategy
- Drawing a random card and getting lucky/unlucky
 - Chance/uncertainty

Decision making and feedback:

- In one iteration of our game, we wanted to add another tier between our second and third (purple and yellow = brown, etc.). We realized that it would be too complicated to memorize so many different tiers and all the color combinations. As a result, we decided to keep it simple and have what we have now. We also learned that it wasn't the best idea for players to sit idle and not play cards for a few rounds, even if that was a strategic part of the game.

Abstraction:

- Colors from the rainbow
- Combining colors to form new colors

Theme:

- A strategic card game to earn 10 coins and win

Storytelling and Context of Play:

- No story involved
- Could be played anywhere you can place cards down
- Can play with anyone (preferably no one who is colorblind)
- No variations

Play experience

This is a game full of entertainment and strategy, which can be used to break the ice in a party or play with friends. Players don't need to experience any profound philosophy or story background, this is just a casual game for relaxation. Of course, players can also experience the principles of color fusion, three primary colors, and three secondary colors in art through this game, as well as cultivate strategic awareness and independent thinking ability.

Prototyping and Playtesting

Prototype:



Suggestions:

- **First Test:** When it comes to multiple players, (testing have 5), there will be the case of people holding no cards in their hands after some turns. For example, the fourth player can beat the first two players card many turns but will hold nothing in their hand when it comes to the third player. And when it is the fourth play turn, he only has one card which is drawn at the beginning of his turn. I was thinking if people hold no cards, he can draw a card.
- **Second test:** Some players suggest writing a key card for each player to remember what color is in which level and how colors can be mixed up. They also want a board card to remember how many points they get. I was thinking of using tokens as points and coins. Whoever gets 10 tokens wins the game.
- **Final test:** We need some better cards. Haha. The old one looks really not good.

Changes:

- We changed our rules to where you will always have at least one card
- Added a key card. We also added markers to make it easier to tell who started the round and when to enter the buy phase
- Created new cards to make them look better

Reflection

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Inspiration: The design of this game is inspired by the concept of color blending and the three primary colors and three secondary colors commonly used in art. We named it a rainbow because of the cards' colors and it is known for its richness of colors.

Building Experience: We didn't really face any difficulties while building the prototype. Our initial prototype was very rough and made the game a little confusing. It led to us cutting up 50 more cards and making them look much nicer.

Feedback we received: The feedback we received was somewhat what we expected. We expected that some players would be left without any cards. However, we didn't realize that it would leave them out of play for a long period of time. This could lead to boredom or one player capitalizing on their saved cards and earning all 10 points at once. We also found the advice from the second playtest to be very useful, so we added a key card as well as markers so players would know whose turn it was. All in all, the feedback was extremely useful and helped us improve our game tremendously.