# Design Exploration Worksheet

Team Name: Team 2
Team Members (Names): Ryan, Eva, Sayo, Hyunbeen.
Game Title: Alien Invasion (Working Title)
Game Mechanism Constraint - Code + Name: _____ [Act22 – Matching] _____
*From Building Blocks of Tabletop Game Design : An Encyclopedia of Mechanisms*

The following questions are meant to help the team define the high-level design of the game.

## The Experience

What is the core experience of the game?

> The core experience of the game is being people trying to save a planet together while knowing limited information about each other. It has elements of time pressure and strategy, but most importantly there has to be teamwork as it is not possible to win alone.

**/2**

Who is the target audience?  What similar games do they like?
What do they expect to see in the game?
Provide a rationale and a list of references to support your reasoning.

> The core audience of this game is generally teens – young adults of any gender. It's very fantasy and narrative oriented, so players of this game would be people who enjoy playing other fantasy and narrative games.
> Because of the fantasy aspect, players would most likely expect to see a lot of illustrations to guide their imaginations. They'd also expect to see detailed explanations, especially of the lore, so that the backstory of each character can be understood for the narrative aspect.
> For example, a fantasy-oriented game like Magic the Gathering has very detailed illustrations, so the players can fully imagine the gameplay, especially since only so much can be described on a card.
> A narrative oriented game like Dungeons and Dragons often has detailed descriptions and story lines.

**/2**

Where is the "fun" for the players?
Explain moments or situations in the game that result in "fun".
*Include annotated images or diagrams that show **where** the fun is.*

> Most of the fun would come from trying to figure out who the other player's characters are, and how to trade with them effectively in order to not only have everyone get the items they need, but also to understand the pattern of which players get which items, to figure out what character they are.
> The challenge would come from having several characters have the same types of items that they require, as well as having to auction your own cards off to other players to help them reach their own requirements as well.
>
> For example, you might have a full deck of items that you need, but you know that the other players have not reached their requirements yet, so you will have to strategize, and auction your card off to the right player, to try to help reach their goal.
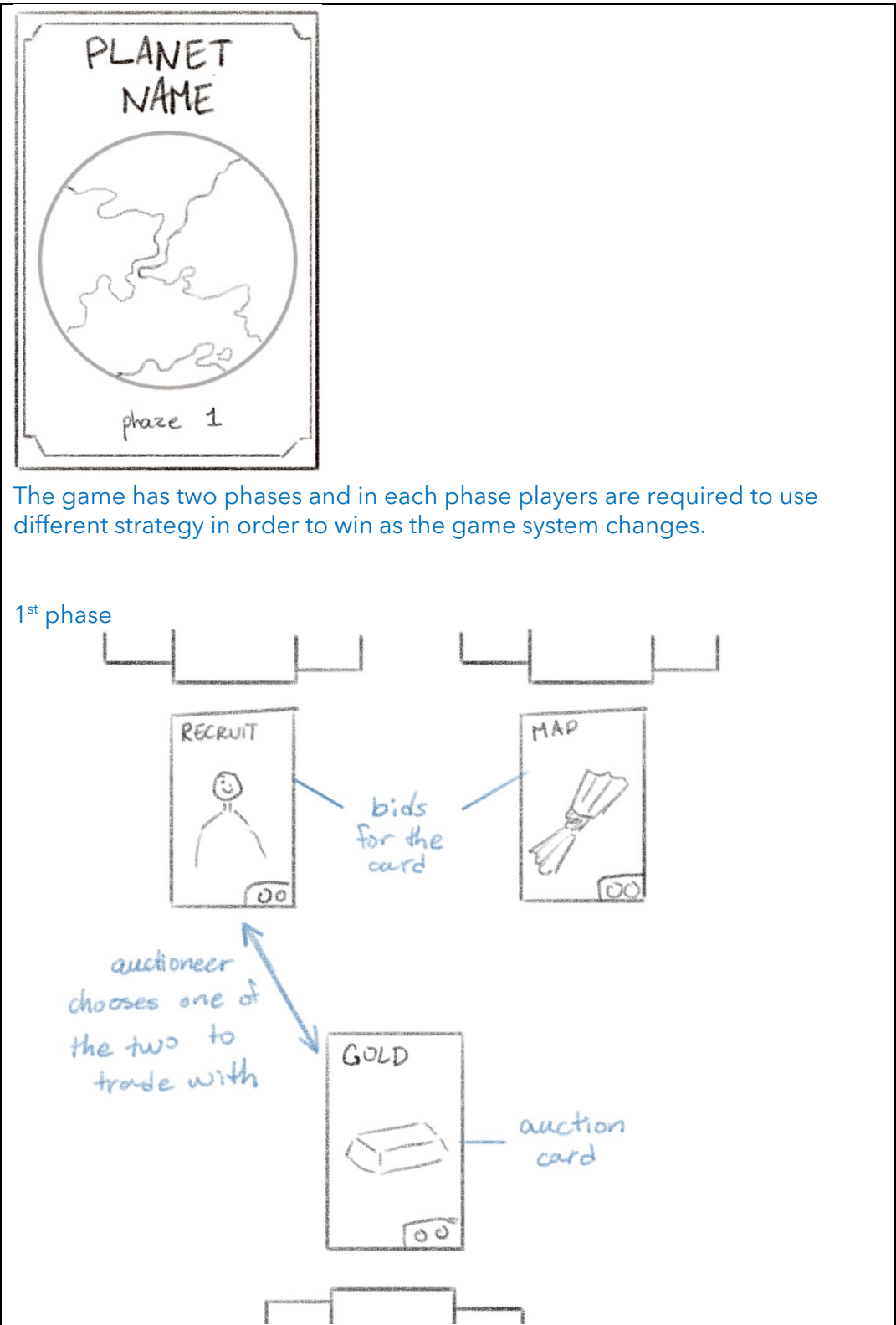>
> [include annotated image of two characters requiring the same type of item here when I get it]

**/2**

How long does it take to play the game?   Why is the duration of play appropriate for the experience and the scope of the project?

Realistically, the game should take up about 5-10 minutes or so. It is not too long but does not end too quick where all the players get all the items they require immediately. It is important to make the game not too long, because there must be some kind of pressure on the players to deduce who the other player's characters are as quickly as possible, so there is pressure and stakes to the game. But also, having the game be relatively quick means that we will not need to add padding to the game to make it longer in the future, if it did not meet our length requirements, and it will be easier to balance the game. With the amount of time we have to work on it, this should be the perfect time to aim for, that is both doable for our scope, and fits the playstyle of the game.

**/1**

Describe and explain at least 3 decision points in the game by way of examples.
*Include annotated images or diagrams that **show and explain** each decision point.*



PLANET NAME

phaze 1

The game has two phases and in each phase players are required to use different strategy in order to win as the game system changes.

1st phase

RECRUIT

bids for the card

MAP

auctioneer chooses one of the two to trade with

GOLD

auction card

**/3**

1.  Choosing the cards in the auction

The player needs to choose a card between the other player's suggested cards. It's pointless to hide what Items you want because other people 'should' know what your character is. Choosing the items you need is the top priority. You also have to think about what character the other person has and help them to collect their cards as quickly as possible to continue playing the next turn.

GOLD

MAP

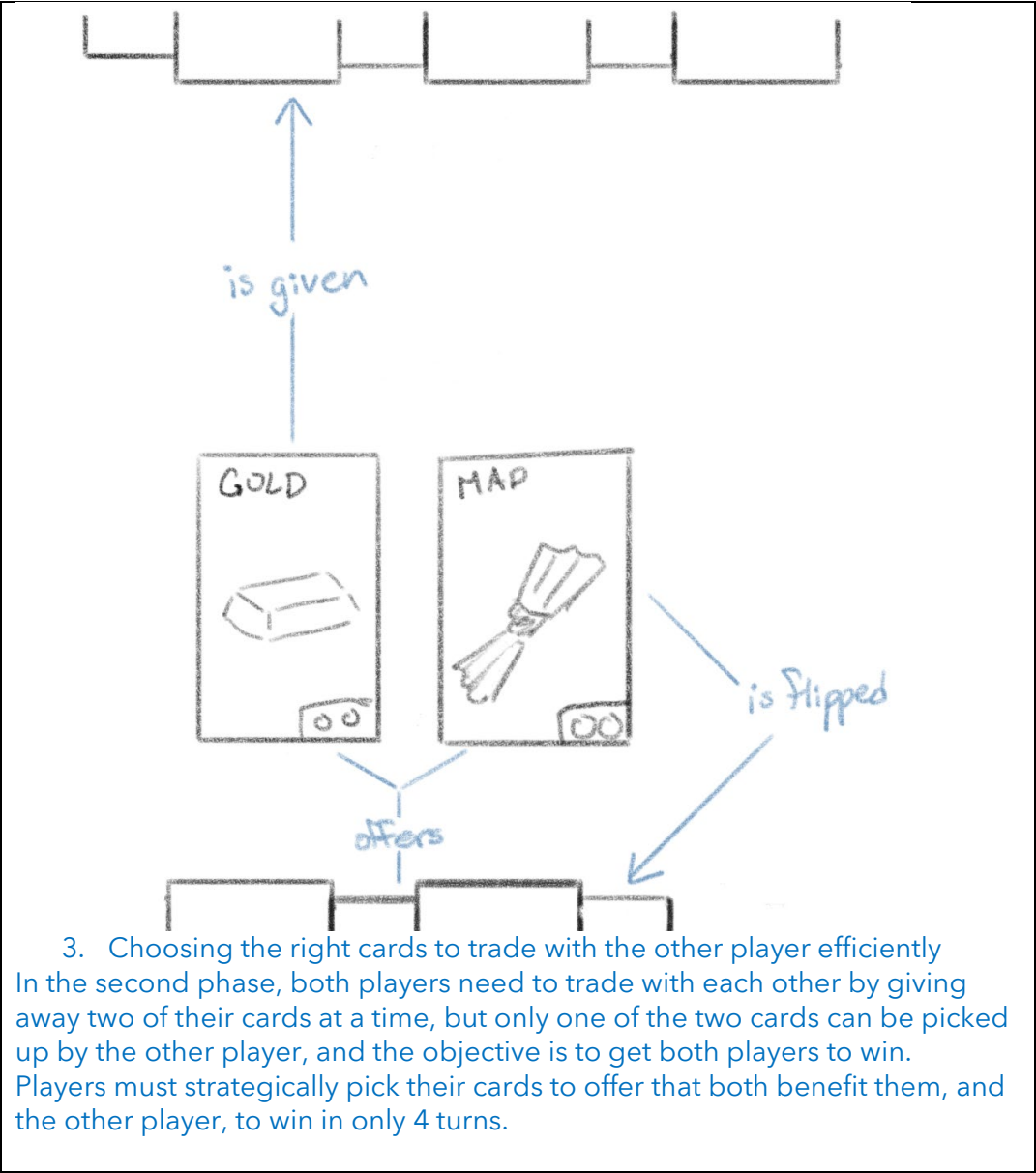after trade

is flipped

RECRUIT

BOOK
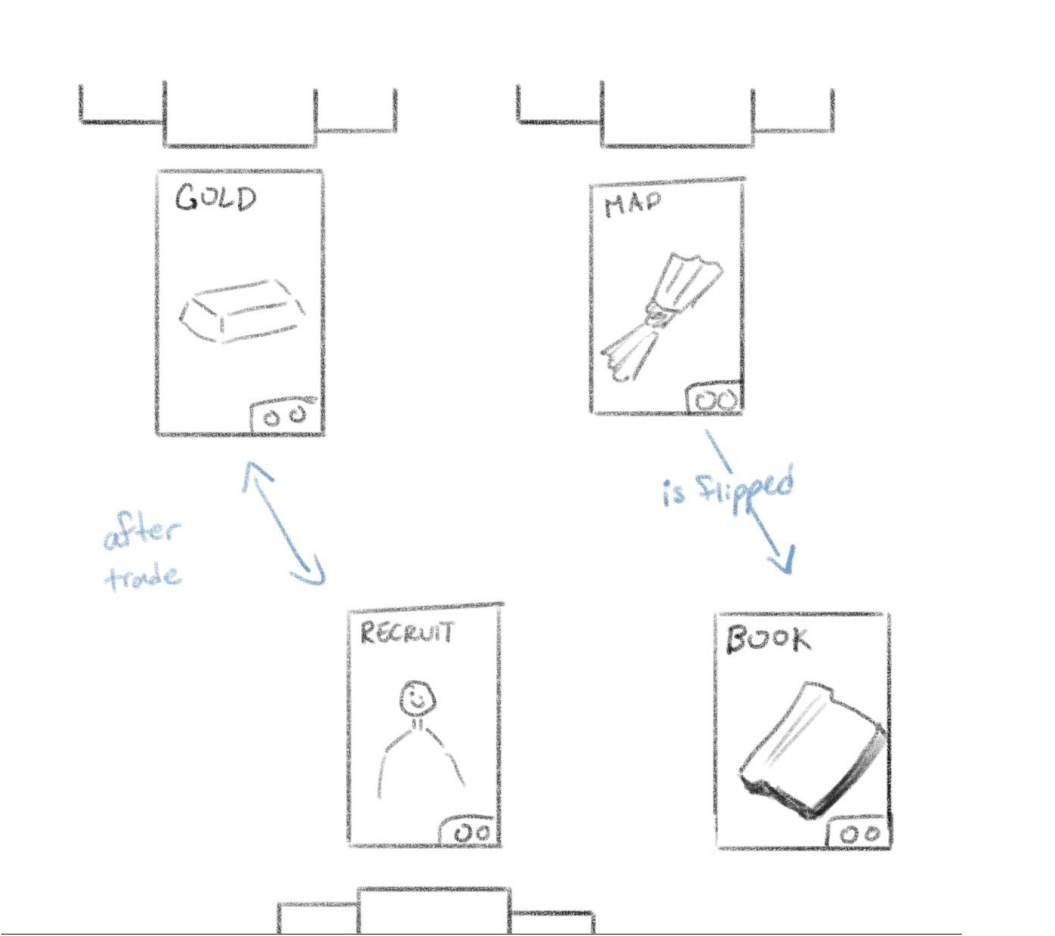
2.  When you're done but still need to trade.

If you are the only one who completed but there is no item you need in the auction. The cards they need may be flipped to have a chance of getting those cards.

In this case, you have to choose what card you give and get based on your knowledge, remembering what items are on the back of the cards.

2nd phase

3. Choosing the right cards to trade with the other player efficiently
In the second phase, both players need to trade with each other by giving away two of their cards at a time, but only one of the two cards can be picked up by the other player, and the objective is to get both players to win. Players must strategically pick their cards to offer that both benefit them, and the other player, to win in only 4 turns.

Describe *beginner* and *advanced* player heuristics.
Phrase each heuristic as a rule.
*For a definition, see: 1.3 Heuristics*
Elias, G. S., Gutschera, K. R., & Garfield, R. (2012). Characteristics of games. Cambridge, MA: The MIT Press.

**Beginner:**
Always auction away cards you do not need.
Always take cards that you need.
Try to complete your card requirements as soon as possible.

**Advanced:**
Always take cards that you need.
Try to figure out which character the other players have based on the cards they are taking and keeping.
Auction off cards that you think will be useful to other players.
Try to complete your requirements while completing other people's requirements.

**/4**

Describe the *interactivity* in the game. Is it appropriate for the experience?
*For a definition of interactivity, review Chapter 2 of **Characteristics of Games***
Elias, G. S., Gutschera, K. R., & Garfield, R. (2012). Characteristics of games. Cambridge, MA: The MIT
*Specifically, see: 2.2 Interactivity, 2.3 Politics, 2.4 Kingmaking, 2.5 Teamwork*

**/2**

In this card game, all players need to work together in order to achieve the goal and in that process players interact with each other's game progress.

For example, trade and auction are types of targeted interaction: A player has an opportunity to interact with another player.
In both actions, the first player can choose another player to exchange their cards with, which allows both players to interact with each other's game process by selecting the cards they need.

A trade or auction affects your game progress, but at the same time, it interacts with others. As a result, the ability to trade with other players gives a positive game state change to the two tradings.

**Subtotal**

**/16**

## Mechanisms

*"Mechanisms should be designed to keep players immersed in the game instead of reminding them they're playing a game." - Stonemaier Games*

Explain the connections between mechanisms and setting/theme by way of two strong examples from the game.
*Include annotated images that explain the connections between mechanisms and setting/theme.*

For the theme of the game, the players are a group of individuals trying to gather their necessary resources to save the planet from being invaded by aliens. The core mechanic of the game is auctioning off a card from your hand, in exchange for another card another player offers. This relates to the theme in the sense that these people are all trying to save the planet, and all have a set of materials. They need the materials of other people in order to save the planet though, so they trade with each other in order to get the materials they need, without financially ruining another player.
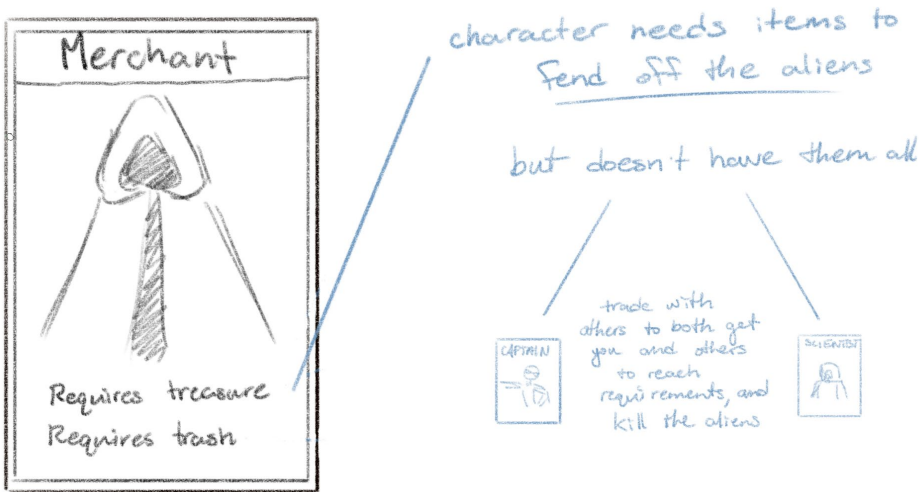


The second mechanic is what happens between phases one and two. When phase one ends, the player who was not chosen is out of the game. In terms of the theme, the two other players completed their requirements, and were

**/4** able to fight off the aliens, while the third fell in battle. The third player can

still choose to help the other players in the second phase, but are technically out of the game.
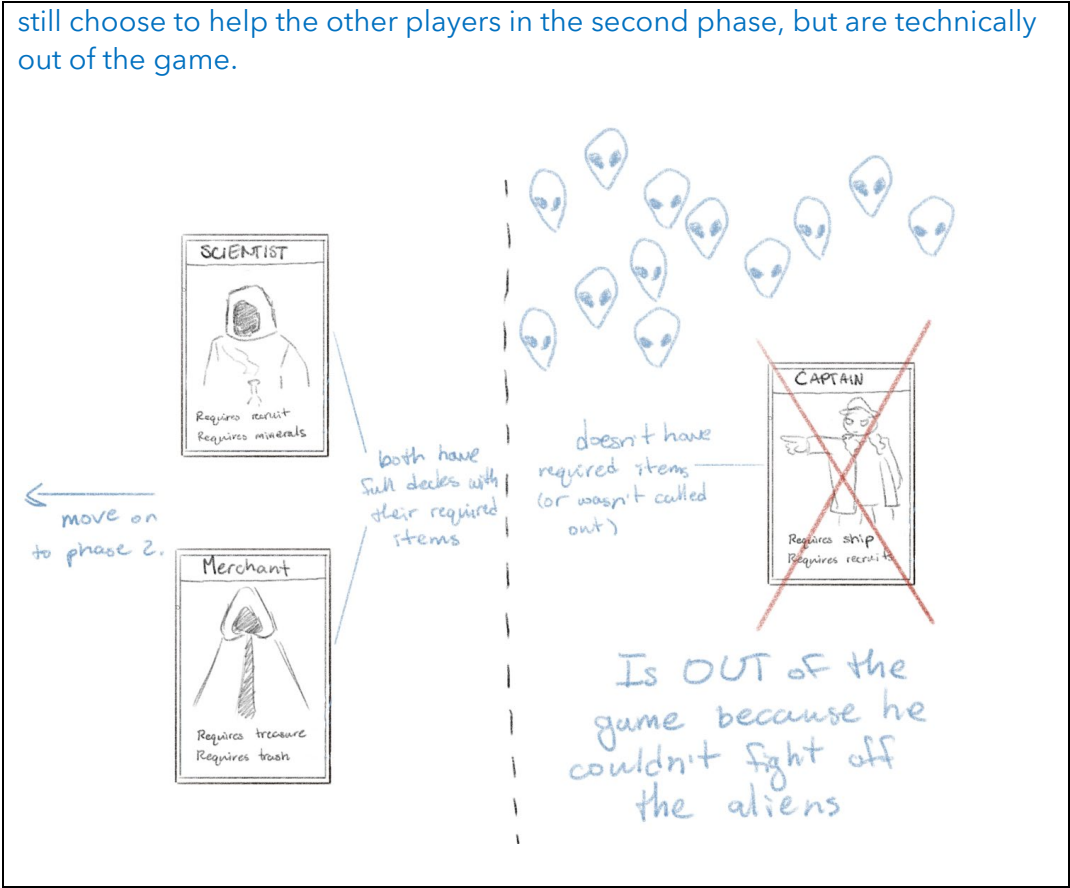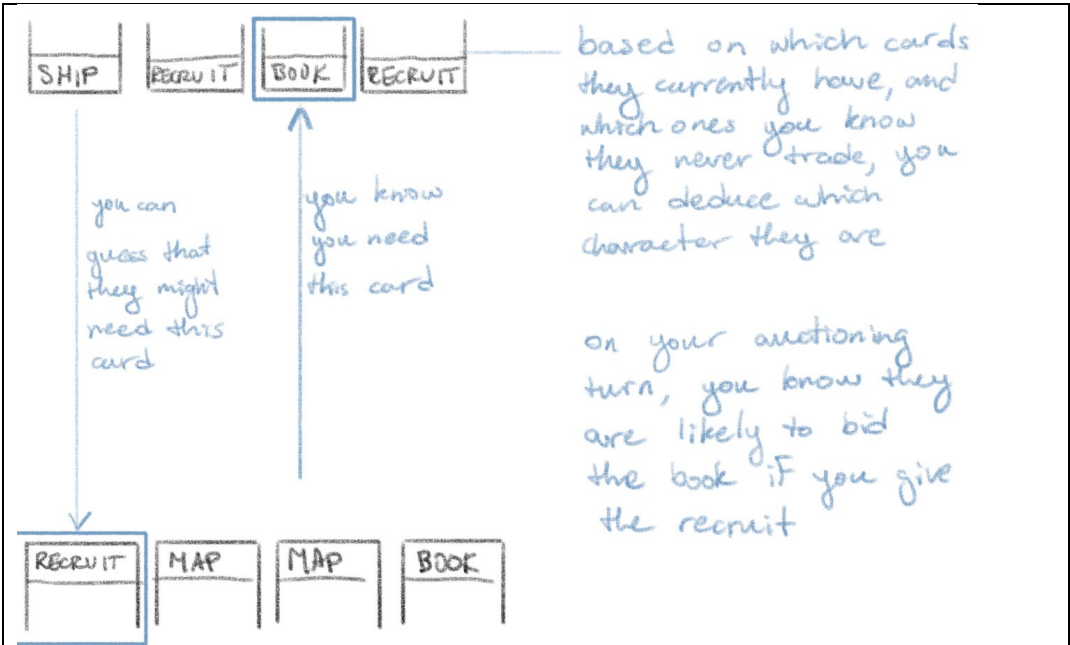


*"you shouldn't have to wait for the previous player to complete their turn to be able to decide what you're doing on your turn." - Stonemaier Games*
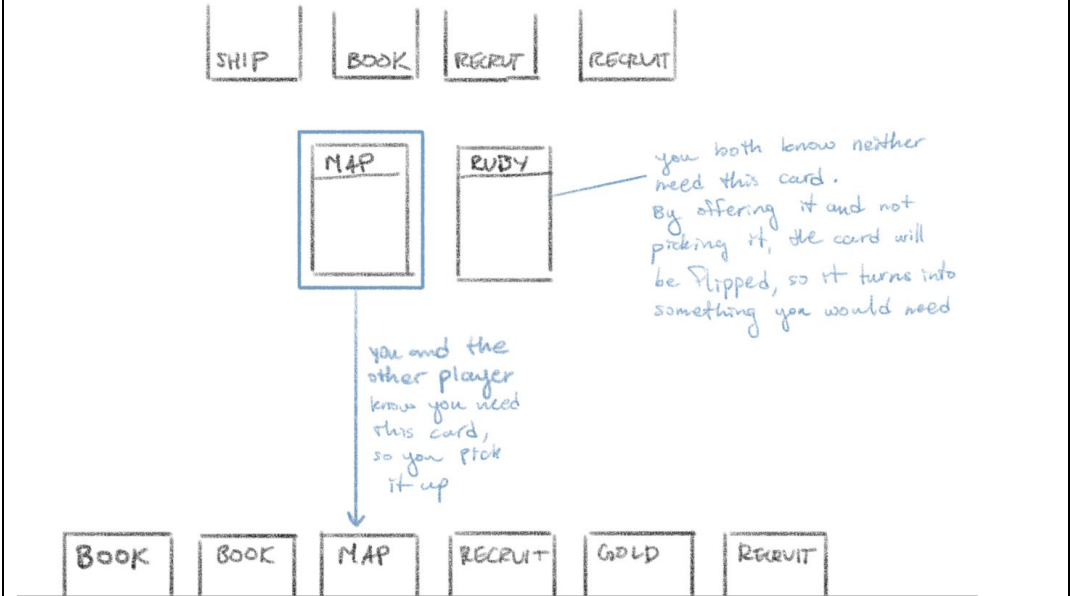
In what capacity can players plan ahead before taking their turn?
Is there player downtime? If so, is it appropriate for the target audience and experience?
*Include annotated images or diagrams that show and explain **plans** players can devise while waiting for their turn.*

Players can definitely plan ahead. Between auctions, all the players revaluate what cards they have in their hand, and once all players are ready, the next player begins their auction. During that in between time, players can look at what cards other players have been taking, as well as what card they are keeping, and giving away. Based on what they think, they can make a guess as to what the other players are looking for, and plan what they auction off or offer accordingly, while trying not to disrupt themself. This does work for the target audience, as it does not require too much deep thinking, as if the player wants, they can choose to focus on what their character needs, making the game much easier to think about. It is up to the player to determine how they choose to go about the game.

/2

Annotations from the diagram:

- SHIP | RECRUIT | BOOK | RECRUIT
- based on which cards they currently have, and which ones you know they never trade, you can deduce which character they are
- you can guess that they might need this card
- you know you need this card
- on your auctioning turn, you know they are likely to bid the book if you give the recruit
- RECRUIT | MAP | MAP | BOOK

In the second phase, players can still plan ahead. Now that the two players are working together, they need to strategically plan ahead and trade cards accordingly to fill out the now more difficult requirements within the turn limit. Any player can take as much time as they need to plan. This works well for the target audience.



Annotations from the diagram:

- SHIP | BOOK | RECRUT | RECRUIT
- MAP | RUBY
- you both know neither need this card. By offering it and not picking it, the card will be flipped, so it turns into something you would need
- you and the other player know you need this card, so you pick it up
- BOOK | BOOK | MAP | RECRUIT | GOLD | RECRUIT

What mechanisms or rules drive the game towards a conclusion?
*Include annotated images or diagrams that help explain.*

A core mechanism of the game is that all players are trying to work together. The aliens can only be defeated once two players have completed the requirements of their characters, and one player has called out the character of the other player. So, players are constantly trying to work together, without actually knowing the exact requirements of the other players. In the second phase, the players remaining are still working together, more directly now that there is only two of them and they both need to succeed. In phase two, another core mechanic that drives the game forwards, is that there is a limited amount of turns the players have to complete their goals. This way the players need to work as efficiently as possible, otherwise they run out of turns, and end up losing. The turn limit makes sure the players constantly work towards completing the game in order to win.

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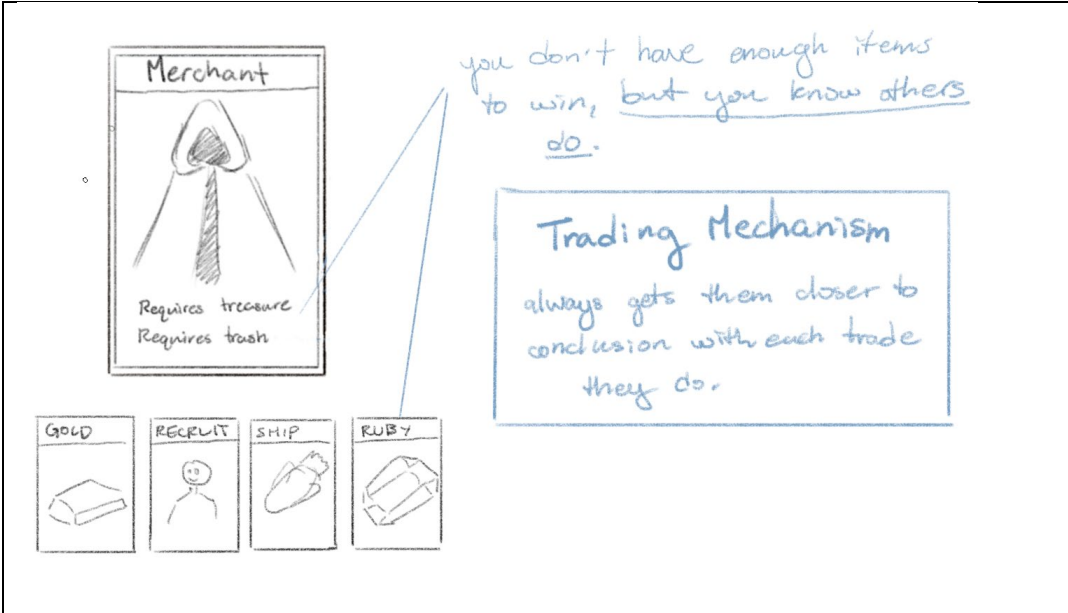
**Subtotal**

**/8**

## Design / References

The rulebook should function as both tutorial and reference.
Provide at least 3 excerpts from published game rulebooks that communicate instructions effectively and will serve as references for your game's rulebook. Aim to find rulebooks from games that share similar characteristics to your game.
*Include annotated images for each reference that explain how each reference is relevant.*



1. The Grizzled - (Rulebook)
The Grizzled is a cooperative card game in which players work together to survive the war. The game is mostly about matching patterns on cards and trying to deduce your comrades' cards/patterns based on what they play.

The content section of the grizzled used images to describe the different types of cards and items to make it easier for players to easily understand.
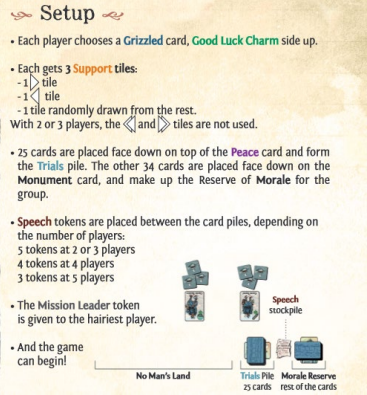


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The instruction begins with a big, important part of the rule and breakdowns into the detailed settings, and finally different types of playstyles in the game.

Instruction is structured like this: Lore - Setup - Game objective - overview of mission- Types of Missions and Actions - Breakdown – Playstyles and Clarifications.

1-2. The mission section clearly displays the game play table
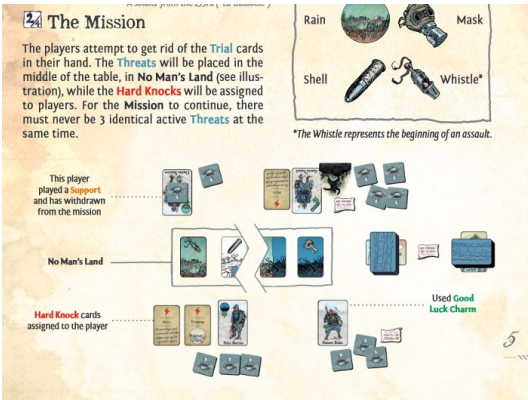


2. The crew - (Rulebook)

In The Crew, players work together to complete objectives, which can be as simple as having the last round be won by a card of a certain suit to more complex requirements, such as playing each round of each suit in a particular order. However, as players cannot communicate what they have to others, they need to watch what other people play and remember what their objectives are.



The main rules are on one side, and there is additional specific information about the rule on the other side of the instruction, which helps the player playing the game to understand more information.
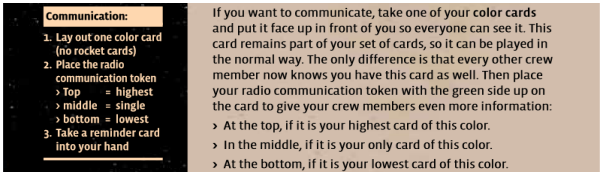


Communication – players use the token to communicate with others to cooperate with each other. Depending on the position of the token, the meaning changes.

This game's instruction might be complicated and confusing but it also shares a similar idea with the first example. The instruction starts with the most important part and goes into detail.

How are the cards designed to support the experience?
How are the cards designed to intuitively support the mechanisms?

The cards are meant to add to the immersion of the game. The are meant to help a player imagine a fantasy world, and a battle going on, therefore we plan to rely heavily on illustrations and lore to make this happen. The are meant to be more than just a tool, but an art pieces and facilities for immersion.
The cards are clearly divided into different types for different uses. Certain cards for trading to support the trading mechanism, and certain cards for characters so that players can know the end state that needs to be reached for the game to be successful. There are also tags on the cards to show clearly what group each card belongs.

/2

Provide at least 3 references of cards from other games that possess the qualities and characteristics that your game's cards should have.
*Include annotated images that explain the relevance of the references.*



1. Double sided cards from [Double_Sided_Poker_Game]
Unlike the original game, which required complex psychological warfare, the double-faced cards in this game are simply used to increase the number of items and game variables.
However, an experienced player may be able to predict which items are there even if they cannot see the back of other cards, by memorizing the flipped cards in Phase 1.
A player may deliberately refuse a trade in order to check or obtain the item on the back side of the card. (Cards not traded are face down)



2. The Shipwreck Arcana - (Rulebook)
The Shipwreck Arcana is a game where each player has a hidden fate number, and players are trying to give clues to each other using only the cards on the board to guess those numbers. Each turn the players get fate tokens, and other players guess it based on the fate card you displayed.
If the group decides to make a prediction, they pick a single value between 1 and 7 and ask you if that is your fate. The player reveals their fate.
A correct prediction is worth 1 point; a failed prediction is worth 1 doom.

In our game, players need to guess their characters based on the cards they trying to get, and if they've completed their set of cards, you can call that player, and play the second phase.

/3

10 / 16

3. Endogenesis

Endogenesis is a competitive card game with a sci-fi concept design. The game has a great, simple, and clean card design that players can easily understand.

We are aiming to design a card with a similar theme, a sci-fi card game in space, cooperate, and fight aliens. (In phase 2 players cooperate but there is only one winner, so it can be a competing game too.) The specific details have not been decided yet, but I'm collecting the references such as backgrounds, images, items, UI, etc. related to a similar space-themed sci-fi design in Miro

| Subtotal |
|---|
| /8 |

## Playtest Results

**Test #1- Date: _____February 3, 2023_____**

What issues did you identify in this test?  Explain how you were able to identify the issue.

*Include annotated images or diagrams that help explain the issues identified.*

| Prior to this test, we had two separate ideas that we wanted to combine, but we weren't sure about how to combine them. We used this playtest to get external ideas and opinions on the ideas we had so that we could finally make prototypes, |
|---|

/4

**Test #2- Date: _____February 10, 2023_____**

What issues did you identify in this test?  Explain how you were able to identify the issue.

*Include annotated images or diagrams that help explain the issues identified.*

By this test, we had two different prototypes, so we wanted to either identify which one was better or combine them. We found out that both prototypes had problems. For the first one:
- The requirements for each character were imbalanced
- It needed more complexity e.g. trading

For the second game:
- It also needed more complexity
- It needed balancing

We discovered these problems simply by the play testers telling us. We then were able to settle on a single prototype.

/4

**Test #3- Date: February 13, 2023**

What issues did you identify in this test?  Explain how you were able to identify the issue.

/4

*Include annotated images or diagrams that help explain the issues identified.*

The game ended too quickly, and was overall too easy
- o   After playing through the game several times, we found it was way too easy to get the items that were required by the characters, so the game overall lasted about 2-3 minutes

The merchant character is a lot easier to complete than others
- o   During our playthrough of the game, the person who had the merchant always won either instantly or in a few trading rounds
- o   This was due to the merchant requiring very common cards, that appeared a lot, and none of his requirements were specific
- o   While other characters needed specific types of items, like only maps and only books, he would fit under many types of cards, and in the end, 7 of the 13 available cards fit his requirement description
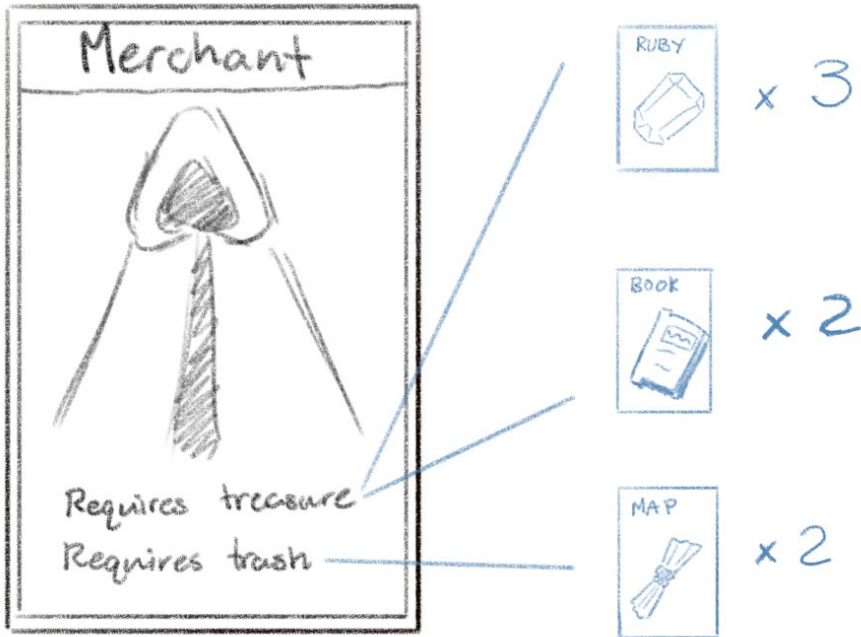


Co-op doesn't work that well when there are very little cards
- o   The playtester specifically mentioned how the idea itself was flawed because getting co-op to work would require many more cards
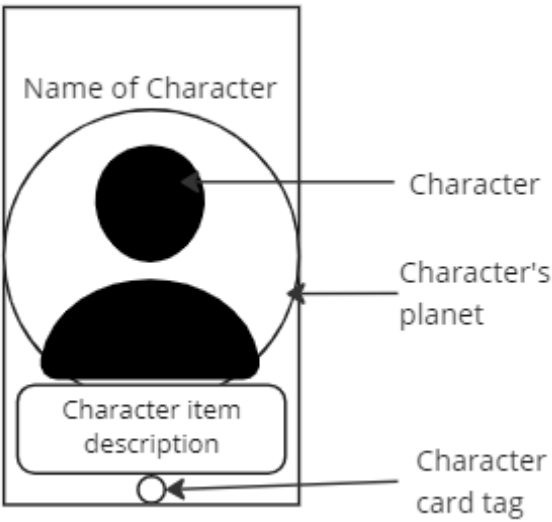
**Subtotal**

**/12**

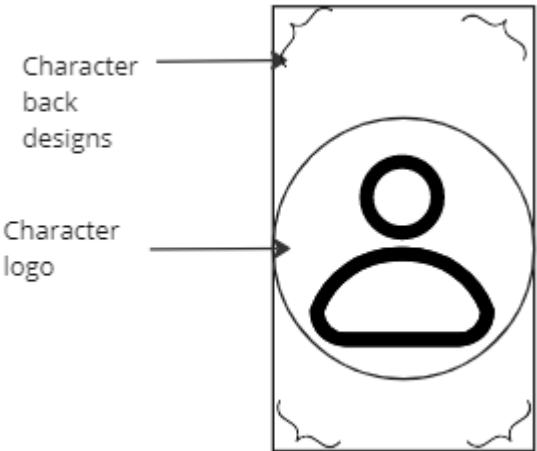## Card Designs & Rulebook

**/5**

**Card Designs**
Provide annotated visual documentation of the card designs as of Week 6.
*Note: As a baseline standard for prototype fidelity, cards should include placeholder art, iconography.*
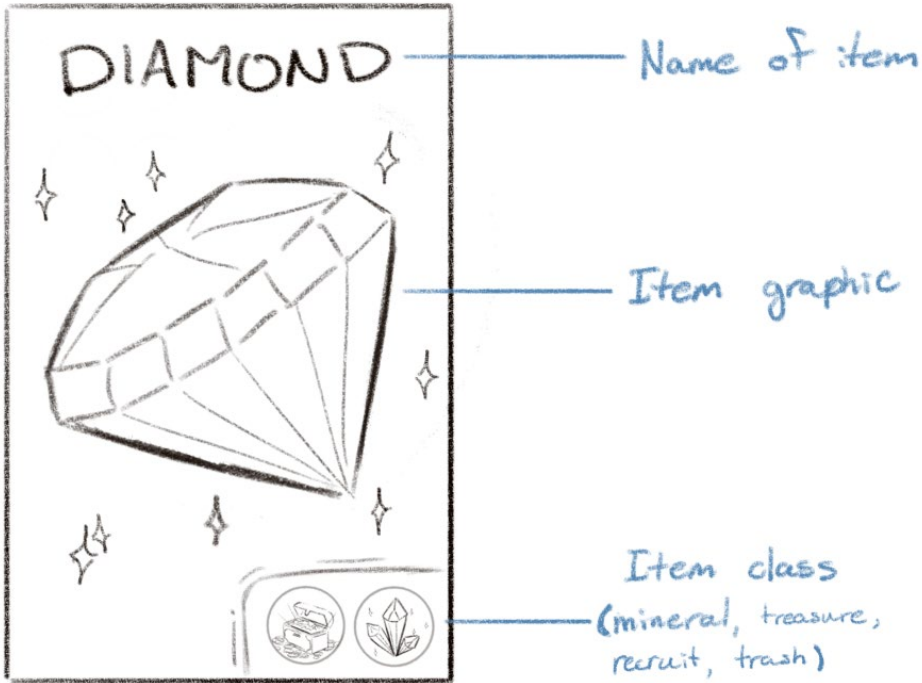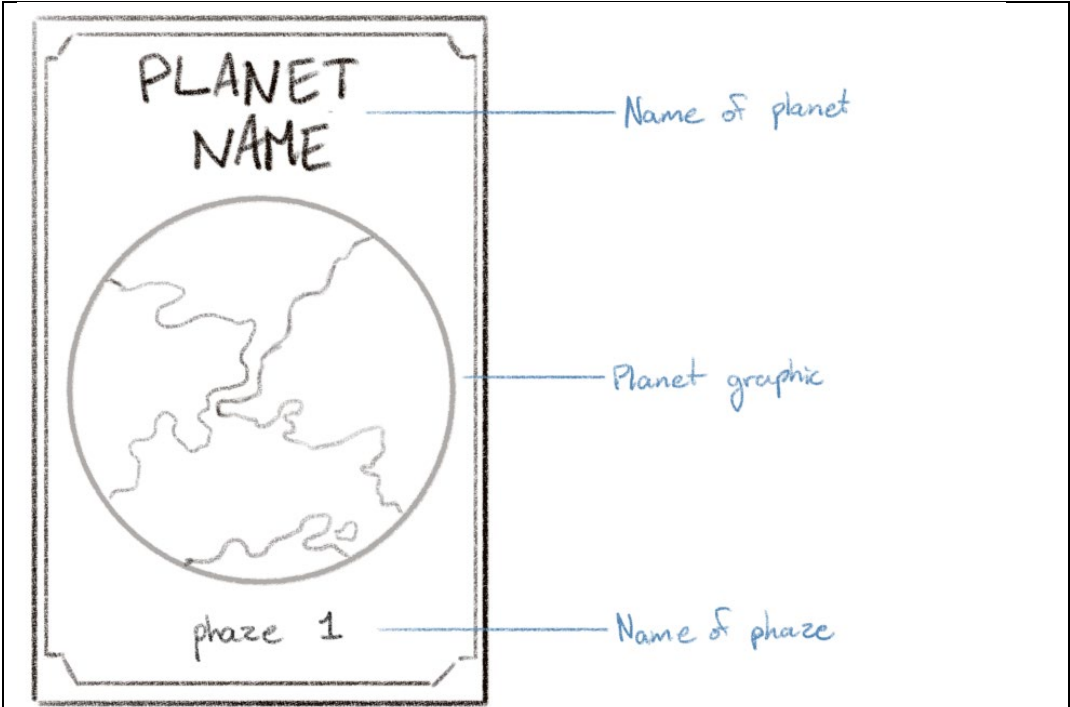
Name of Character

Character

Character's planet

Character item description

Character card tag

Character card front prototype

Character back designs

Character logo

Character card back prototype

DIAMOND — Name of item

Item graphic

Item class (mineral, treasure, recruit, trash)

Item card prototype (both front and back would be the same)

PLANET NAME ——————— Name of planet

——————— Planet graphic

phaze 1 ——————— Name of phaze

Planet card prototype (front and back also similar with only change in phases and design of the planet itself)


Treasure


Trash


Recruit


Mineral

Item card class icons that appear on the bottom of the cards

**Rules**

Provide the rules to the game (as of Week 6). Ensure the rules are formatted with visual hierarchy.

The planet is being invaded by aliens, and the players must get their required materials to defeat the aliens and take back their planet.

At the beginning of the game, each player is delt a random character card that the other players cannot see.

The players must complete the requirements that their character needs by collecting a certain set of materials.

Players are delt four material cards, that all other players can see.

The youngest player goes first.

On a players turn, they pick one card from their hand, and put it up for auction.

The other two players then pick a card from their hand and offer it to trade for the card being auctioned.

The player who is auctioning the card picks on card to trade with, the other card will get flipped over, and swapped with the side card.

The next player takes their turn.

The auctioning process repeats until the players run out of turns, or each player completes their requirements.

When a player completes their requirements, they flip up their character card to indicate they have completed their requirements.

Once a player has completed their requirements, they have the option to "call out" another player.

When calling out someone else, the player chooses another player who they think has completed their requirements and guesses what character they have. If that player has not completed their requirements, or the player calling out the other player guesses the character incorrectly, the player who tried to call out another player flips all their material cards upside down, and the game continues.

A player can only try to call out another player on their turn.

If a player successfully calls out another player, those two players move onto phase two. The other player can help if they want but are out for the rest of the game, as their character fell in the battle against the aliens.

At the beginning of phase two, all material cards are shuffled and delt out, with each player now getting six material cards instead of four.

In phase two, because the aliens have been defeated, they decide to try and blow up the planet with a bomb.

The same auctioning process now happens in phase two, but now with less cards to auction.

In phase two, the players still know what character the other player is, but they now only have four turns to complete both their goals.

Once all players have completed their requirements again, now with all six cards, they successfully defuse the bomb and save the planet, they win!

If the players run out of turns before completing their requirements, the planet blows up, causing the players to lose.

There is no time limit, only a turn limit.

Players cannot talk about or give any hints as to what character they have but are free to talk about their character in phase two, now that all characters have been revealed.

The goal of the players is to work together to try and figure out what each player needs and get them their materials as fast as possible.

**/5**

**Subtotal**

**/10**

TOTAL:     **/54**

WEIGHTED GRADE:     **/8**