UNIVERSITI TUNKU ABDUL RAHMAN (UTAR)

Faculty of Creative Industries (FCI)

Department of Game Studies

UJMM1034 Game Design Foundation

Tutorial Assignment:

Tabletop Game Project

Game Name:

"Plan Bee"

Group Name: Ice Cream Dream

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Date: 15 September 2022	**Date:**

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Inspirations/ Competing Tabletop Games

"Plan Bee" is inspired by the board game, "Stone Age". "Stone age" is a worker placement game that place the worker to get the resource, make the new worker. We refer to their game mechanic how they put their worker to different place to gain a new worker, increase food production or build the house for the victory point. In 'Stone Age", strategy is very important. Players must decide which places they want to put their workers that will give them the most benefit. We also refer "Stone age" scoring system used in that game, whoever has the highest score wins.

"Plan Bee" is worker placement game and combine PVP combat features while "Stone age" do not have a combat system. So, we will need think a way that will allow the player to attack many places and collect resources at the same time. In "Stone age", when the players are taking back the workers, they will take them all together, we realized that if we change the mechanic instead of taking them all at once but take the bee one by one so that it will be fairer to each player for them to strategize which bee to attack or collect the resource first.

Game Introduction

The game is played by 2 or 4 people, each with their own bee kingdom, by building the strongest honeycomb they will try and take over the beehive, to become the bee leader that would control all the bees.

The first player will place one or more bees in the location of their choice. Then, the player to their left will do the same, and so forth until every player has placed all their bees on the board. Following this, starting once more with the first player, each player moves from location to location and takes the corresponding action. This represents a player's game turn. Once a player's turn is over, the player to her left does the same, and so forth until every player has finished their turn. Then the first player of the next round will move on to the player on the left, in a clockwise manner.

The game is played over a varying number of rounds played like the previous one. A detailed description of a game round and each action follows.

Game Objective

The main objective of "Plan Bee" is to get the highest score among the players. This can be achieved through executing various actions such as expanding beehive, harvest honey and grow your bee army. The score can be obtained through building honeycombs and destroy other's honeycombs to decrease their score.

Rules

Setup

1. Place the main game board and the sub game board next to each other on a flat surface.
2. Each player chooses the colour of the bees.
3. Each player takes 12 honey token and 5 of bee tokens of respective colour.
4. Shuffle the honeycomb cards and place it face down at the 8 shop slots evenly.

Gameplay

1. Decide which players go first, then go clockwise after that. The first player of the turn will be changed to the next player every turn.
2. Place the turn indicator on the 'Round 1' slot of the sub game board.
3. Flip each of the first card of the shop slots face up.
4. Enter Phase 1:
    a. Player can decide where to place their bee token(s) at the:
        i. Flower field slot(s)
            There are 3 kinds of flower fields and each rewards differently. There will be 10 slots at each flower field where each slot can only have 1 bee token at each time.

        ii. Main Honeycomb
            Place 2 bee tokens to get 1 bee token during phase 2. Maximum 4 bee tokens can be placed on the main honeycomb to get 2 bee tokens per round.

        iii. Self-own Honeycomb(s)
            Place bee token(s) to attack other players' honeycomb(s) or defend against other players' attack.

        iv. Shop slot(s)
            Place bee token(s) to reserve the honeycomb to buy during phase 2.

5. End Phase 1 after every player had finished placing all their bee token(s).
6. Enter Phase 2:
    a. Player must take back their bee token(s) when they carry out an action during this phase.
    b. Player can decide where to collect their bee token(s) first:
        i. Flower field slot(s)
            The amount of honey token(s) obtained by the players are determined by the outcome of the dice rolls. The number of dice are determined by the amount of bee token(s) placed on the slot(s). The amount of honey token(s) obtained by players is shown at the following table:

Type of Flowers	Outcome of Dice Rolls leads to Honey token(s) obtained		
	1	2	3
White	1	1	2
Pink	0	2	4
Purple	0	0	8

Table 1.1 Amount of honey token(s) obtained by players affected by the type of flowers.

ii. Main Honeycomb

Take 1 new bee token for every 2 bee tokens collected back from this main honeycomb. (Maximum 2 bee tokens can be taken as only 4 bee tokens are allowed to be placed per round.)

iii. Self-own Honeycomb(s)

1. Attacking the other players:
   The players are recommended to fight others to reduce the opponent's score and get the resource from the attack if it was successful.

2. Only when two players' honeycombs are touching each other they can choose to attack each other by putting the bee tokens on their honeycomb(s) next to the opponent's honeycomb. There is no limit to how many bee token(s) you want to place on the honeycomb to attack.

3. The player to attack first will be decided by the flow of that turn. The number of dice that the player can roll are determined by the sum of the amount of bee token(s) placed and the level of the honeycomb.

4. Both the defender and attacker will roll their dice together and compare the outcome of the dice roll between each other. The player with the higher outcome wins the fight. If both players achieved the same results, they would need to roll again until someone wins the fight.

5. If the attack was successful, that defender's honeycomb will be destroyed and discarded, and the player that attacked will get the resource (honey token) from the card that was discarded by the

defender, and both player's bees will be returned to them.

6. If the defending player won, the attackers' honeycomb will be destroyed, and their bees will be returned. As for the defenders' bees, the token(s) will remain in the honeycomb and could be used to attack another honeycomb or defend from another attack if it were touching another honeycomb(s).

iv. Shop slot(s)
Players can pay the amount of honey token(s) required to buy the specific honeycomb(s). Place the honeycomb(s) bought on the main game board. The honeycomb(s) must be connected to other honeycomb(s). The players can decide not to buy the honeycomb(s) if they do not have enough honey token(s) to buy.

7. After all players had finished collecting back all their bee token(s), Phase 2 will be ended.

Ending the round

8. Enter Phase 3.
9. Every player must feed their bee during this phase.
    a. The amount of honey token(s) to be fed is determined by the amount of the bee token(s).
    b. Example: If Player 1 have 8 bee tokens, he must discard 8 honey tokens.
    c. If the player does not have the enough amount of honey tokens to feed their bees, they must kill discard 1 bee token to get 2 honey tokens. If the player still cannot feed their bees, he needs to discard the amount of bee token(s) until all his bees can be fed.
10. Place the turn indicator to the next round slot.
11. The first player of the turn will be the next player.

Round 7 & 8

During round 7 and 8, there will be an advantage for the weak players.

For the player(s) who met the following requirements:

- Has the lowest score
- Has the least amount of bee token(s)

For each fulfilled requirements, the player will be rewarded by 1 buff.
If a player met both requirements, the player will be rewarded by 2 buffs.
1 buff can increase the number of dice rolls by 1 during the attacking and defending phase.

Winning

After all the 8 rounds have ended, the players will start to count their scores.

The player with the highest score wins the game.

For the scores obtained, please refer to the following table.

Level of honeycomb	1	2	3
Score	1	2	3

Table 2.1 Level of honeycomb affects the score obtained.

Bonus Score

The player with the highest amount of honey token(s), plus 1 score.

The player with the highest number of bee token(s), plus 1 score.

The player with the most honeycombs, plus 1 score.

If there are more than 1 player with the same amount of bee or honey token(s), all of them receive the additional score.

Game Materials/Tokens/Game Board/Cards/Etc.
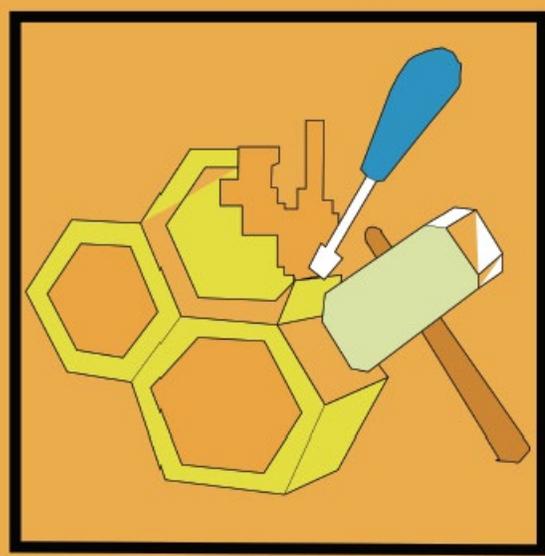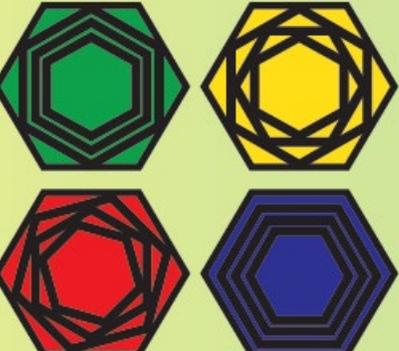
Shop slot

Main Honeycomb

Honeycomb Slot
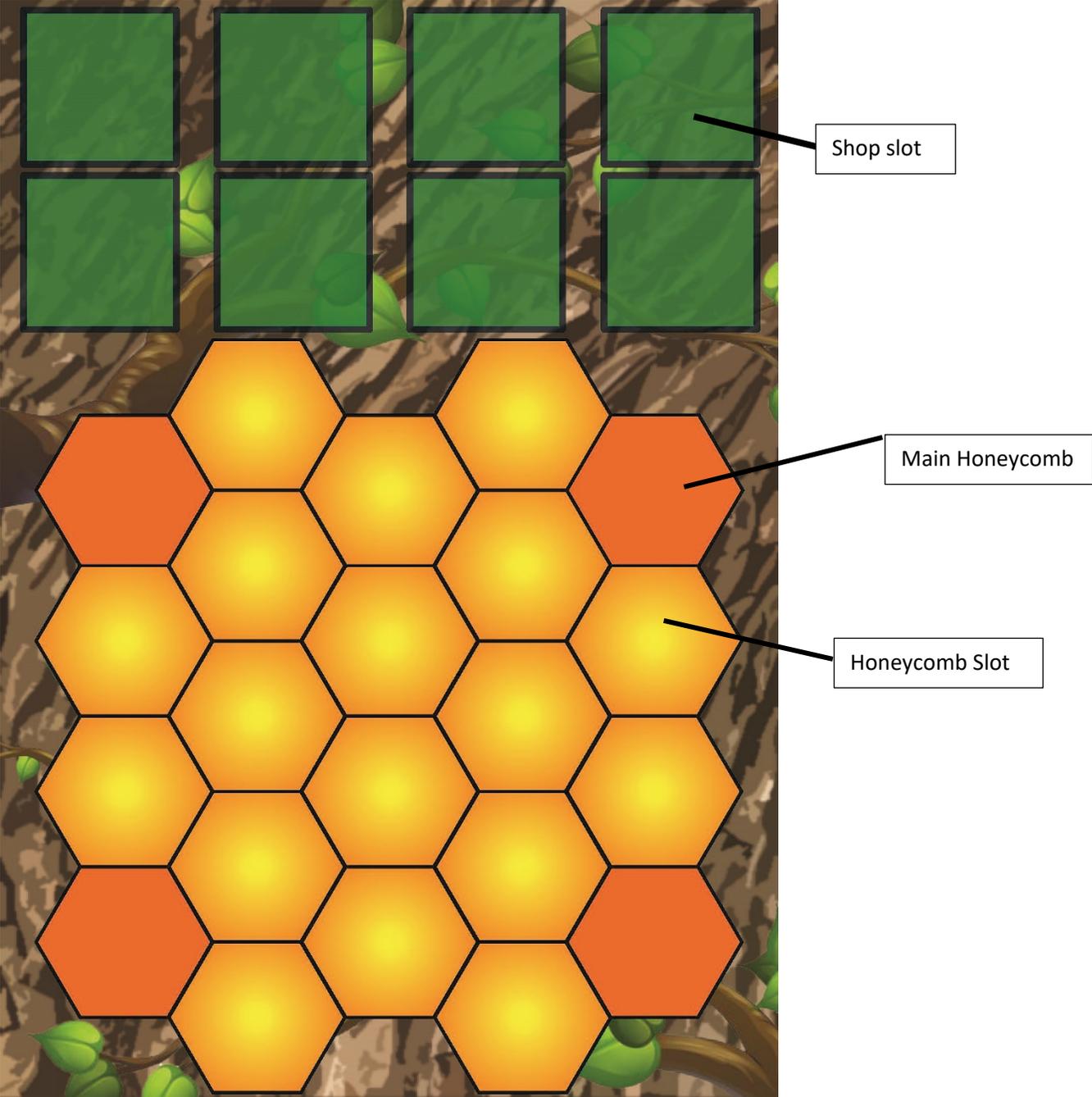
Figure 3.1 Main Game Board
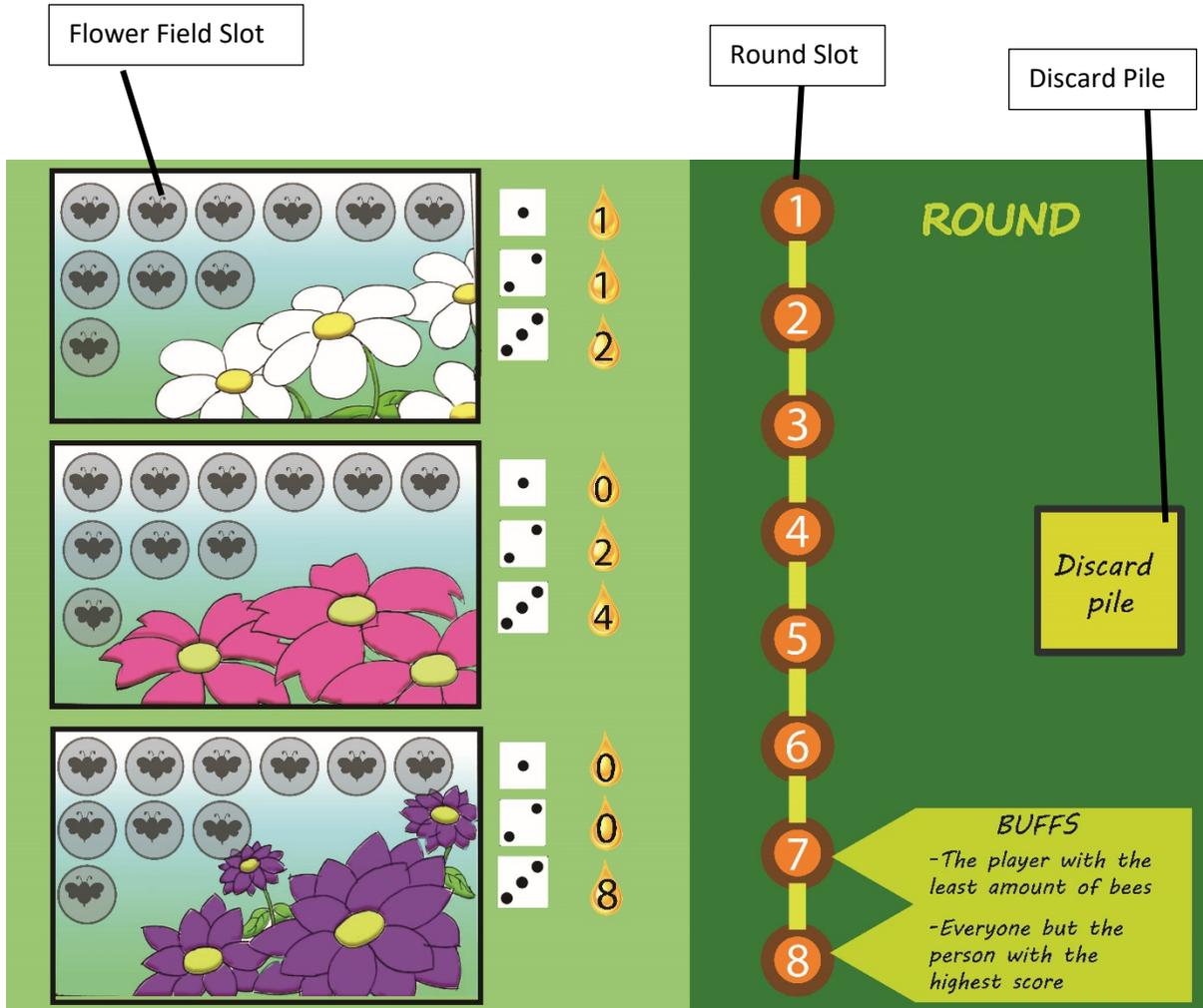
Figure 3.2 Sub Game Board
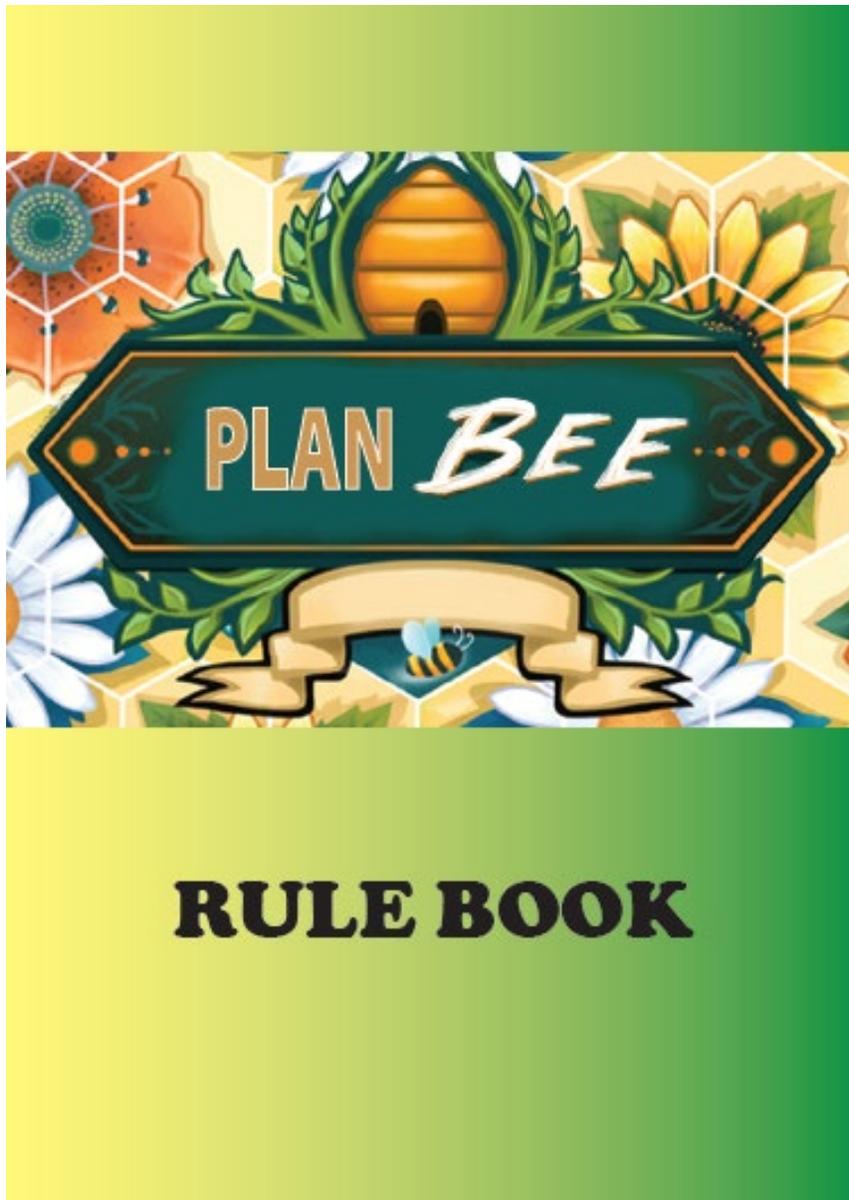
Figure 3.3 Rulebook of Plan Bee

No.	Token/ Card	Definition
1		Level 1 Honeycomb Card - For the players to place their bee token to reserve for Phase 2. - Lower right corner of the card shows the 1 honey token that is required to buy the Level 1 Honeycomb.
2		Level 2 Honeycomb Card - For the players to place their bee token to reserve for Phase 2. - Lower right corner of the card shows the 3 honey tokens that is required to buy the Level 3 Honeycomb.

3		Level 3 Honeycomb Card - For the players to place their bee token to reserve for Phase 2. - Lower right corner of the card shows the 3 honey tokens that is required to buy the Level 3 Honeycomb.
4		Back of the Honeycomb Card
5		Main Honeycomb - For players to place 2 or 4 bee tokens to get 1 or 2 bee token(s).

6		Level 1 Honeycomb
		  - For players to place their bee token(s) to attack or defend.
		  - This can increase the dice roll by 1 during attacking and defending.
		  - Represents 1 score.
		  - Have 4 colours.

7		Level 2 Honeycomb
		  - For players to place their bee token(s) to attack or defend.
		  - This can increase the dice roll by 2 during attacking and defending.
		  - Represents 2 score.
		  - Have 4 colours.

8		Level 3 Honeycomb - For players to place their bee token(s) to attack or defend. - This can increase the dice roll by 3 during attacking and defending. - Represents 3 score. - Have 4 colours.
9		Bee Token - Consists of 4 colour: Red, Yellow, Green & Blue - For the players to carry out various actions by placing it on respective slots.
10		Buff Token - To increase the holder's dice roll by 1 during attacking and defending.
11		Turn Indicator - To show which turn is now by placing it on the 'Round slot'.
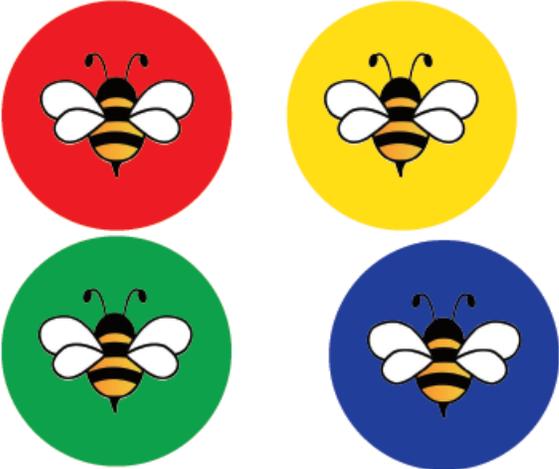
12		Dice - With 6 surfaces - 1, 1, 2, 2, 3, and 3.
13		Honey - Act as a currency in the game.
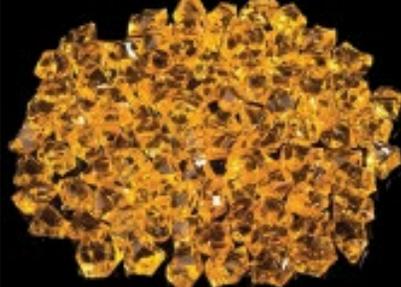
Design Process

Initial Design

The initial design for the "Plan Bee" is just simply build a stronger beehive and take out the opposing queen bee. There was not a game board back in the initial design as the players can just build their beehive in the way they like. The bee token(s) are limited to 2 tokens per 1 honeycomb, so to have more bee token(s), the player will need to build more honeycomb. For the setup, the card of honeycomb with the queen bee will be surrounded by 4 cards of honeycomb which is all filled with 2 bee tokens each.

Honey is used for carrying out actions. The amount of honey decides the maximum movement of the player. The player can whether choose to spend all their honey at a single turn or end their turn whenever they like. Honey can be used to collect nectar, build honeycomb, and to feed the queen bee to produce more bees.

Attacking and Defending Mechanism
When a players decided to attack the others' queen bee, the player needs to decide how many bees token they want to send out to attack and how many bees token the defender site want to send out for defense without letting each other know. Then, they will reveal the number of bees token that they are sending out.

If the attacker's numbers are greater than the defender, only half of the numbers of the attacking bees can be saved while the other token needs to be discarded and the defender will lose.

If the defender's numbers are greater than the attacker's, all the attacking bees token are to be discarded while half of the number of the defending bees will be discarded.

If any player builds more than a specific number of honeycombs before round 5, its beehive will be sabotage by the bear causing it to lose 2 honeycombs, honey, bees.

Special Events & Winning Conditions
The players need to draw an event card every round to decide the weather of the current round. Weather will have different effects for the players' actions.

For example, Raining will prohibit the Collecting Nectar action, Storm will destroy 3 outer honeycombs.

The last standing queen bee will be the winner. If all the queen bees are still alive during round 15, the winner will be determined by the player who has the most honey/ honeycomb.
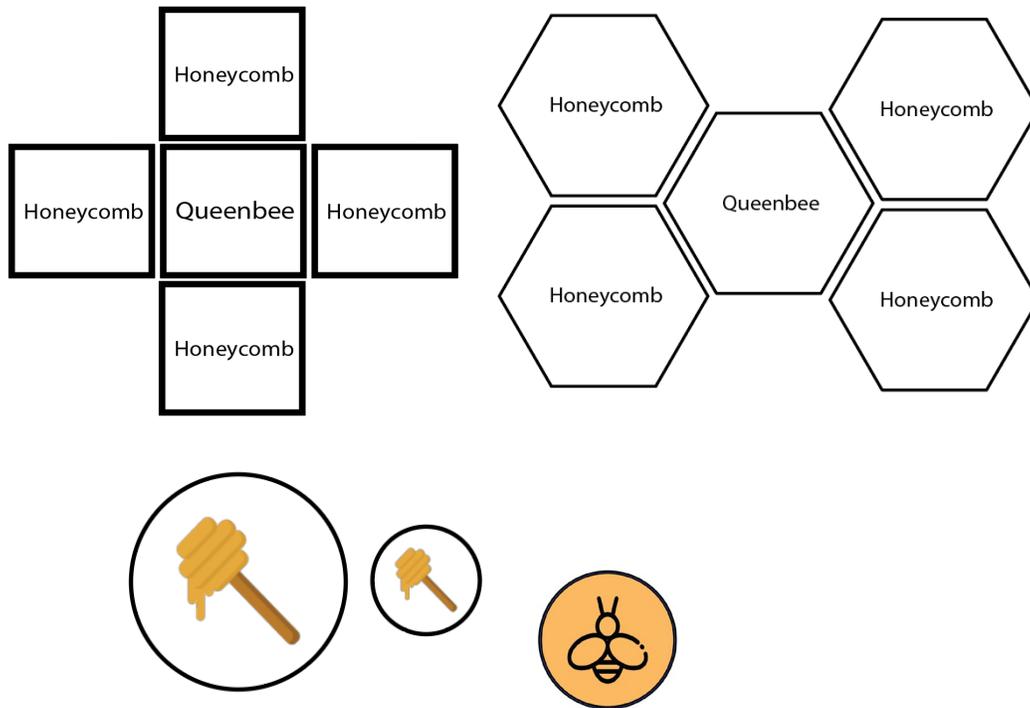
These are the initial design for the materials used in the board game.

Prototype Test 1

Changes in Setup:

Each player starts with 5 bees and without any honeycomb. Each player will be getting 5 white flowers and 2 yellow flowers.

Changes in Gameplay:

Bees need to be fed by using honey. Number of bees determined the amount of honey to be discard. White flower can feed 3 bees, yellow flower can feed 4 bees, blue flower can feed 5 bees and pink flower can feed 6 bees.

3 Phases are added for every single turn. First phase is to place the bee token(s), second phase is to collect the bee token(s) placed and the third phase is to feed the bees. If the player place 2 bee tokens at the white flower slot, they must wait for another turn to place the bee token(s) at another place. The phase will be ended after every player had placed all their bee token(s).

After all players had finished putting their bee tokens, they will enter the next phase where they will collect back the bee token(s). If the bee token(s) are placed separately at different place, the players will need to decide which area of their bee token(s) that they want to collect first. If the player collects the bee token(s) of that area first, then it will be the turn for the other player to collect their bee token(s) back. After

every player collected back their bee token(s), this phase will be ended and enter the last phase.

If the players want to build honeycomb(s), they must first place their bee token(s) on the desired honeycomb card at the shop then wait for the phase 2 to collect back their bee token(s). If they want to buy that reserved honeycomb, they must pay the required material that can get from the specific type of flower.

For the building material, the players need to put the bee token(s) to the different type of flower to get different materials. For example, if player A put 2 bee tokens at the white flower slot, during the collect phase, he will get to roll two dice. To get the materials from the white flower require 3 to get. If, that player rolls and get 5 and 3 as the outcome, he will get 2 white flower materials by dividing the outcome of the dice with 3.

For the attacking and defending mechanism,

When the players' honeycombs are connected to each other, they can place their bee token(s) to fight to reduce the opponent score if the attack was success. The first player to collect the bee token(s) on those touching honeycomb(s) will attack first. The player with the higher amount of bee token(s) will destroy the other honeycomb and causing the opposing player to discard his honeycomb card. Also, the player that attack successfully will get the resources from the card that was discarded by the defender.

If the players want to produce more bee token(s), they must place 2 bee tokens on their main honeycomb.

Changes in Scoring:
1 white flower will be count as 1 score while honeycomb built using white flower will increase another 2 points.

Problem(s):

- Attacking and defending mechanism is not fair for first player as the second player can place more bee token(s) depends on the first player.
- Shop slots are not enough.
- Game is unbalance as the player what keep producing bee tokens will win.
- Lack of methods for the weaker players to comeback.

Suggestion(s):

- Add more shop slots.
- Limit the maximum number of bees that can be produced at 1 turn.

Prototype Test 2

Modification(s):

- Changes the dice to 6 surfaces with only 1, 2 and 3.
- Reduce the rounds to 8.
- Winning condition is changed to getting scores from the honeycombs.
- Limited flower slots to 10.
- Changes in the ways of obtaining flower materials.
  Roll dice to get materials.

Type of flowers	Outcome of dice rolls		
	1	**2**	**3**
First	1	2	3
Second	0	4	6
Third	0	0	12

Table 3.1 Materials obtained from flowers.

- Added more shop slots.
- Limited the maximum number of bees produced in a turn to 2.
- Added level system to the honeycombs.
  Level 1 does not have any buff.
  Level 2 increase 1 bee power to attack and defense.
  Level 3 increase 2 bee power to attack and defense.
- Changes in Attacking & Defending.
  Roll dice to determine the winner of the fight.
  1 bee power gets to roll 1 dice.
  Players can choose to not attack the other but to defend their honeycomb by not collecting those bee tokens.
  Players cannot put their bee token(s) first to the unconnected honeycomb(s).
- Added buffing system.
  Round 6-8;
  Player with the lowest score gets 1 extra honey when he successfully obtained honey from each dice roll.
  Round 7-8;
  Player with the lowest score gets 2 bee power for their honeycombs.
  Player with the second lowest score gets 1 bee power for their honeycombs.

Problem(s):

- Levels of the honeycomb are confusing.
- Different materials of different flowers are confusing.
- Third flower is giving away too many materials.

Suggestion(s):

- Make the levels of the honeycomb easier to understand.
- Replace the different materials into a single type of currency.

Prototype Test 3

Modification(s):

- Removed different materials.
- Added honey as the only currency.
- Adjustments to the level system of honeycombs.
  Level 1 increase 1 bee power to attack and defense.
  Level 2 increase 2 bee power to attack and defense.
  Level 3 increase 3 bee power to attack and defense.
- Adjustments to the honey obtaining system.

Type of flowers	Outcome of dice rolls		
	1	2	3
White	1	1	2
Pink	0	2	4
Purple	0	0	8

Table 3.2 Honey obtained from flowers.

- Adjustments to the attacking and defending mechanism.
  Winning player(s) will get the amount of honey according to the level of honeycomb destroyed.
- Adjustments to the buffing system.
  Round 6-8;
  Player(s) who met the following requirement:
  -Does not have the highest amount of bee token(s)
  and
  -Does not have the highest score
  Buff will increase 1 dice roll while attacking and defending.
- Adjustments to the main game board.
- Adjustments to the sub game board.

Problem(s):

- Easy to forget about the buff during attacking and defending.
- Too many bee token(s) need to be prepared even though the demands of it varies according to each match of the game.

Suggestion(s):

- Limit the maximum amount of bee token(s) players can get in the whole game.

Prototype Test 4

Modification(s):

- Added different colours for each level of honeycomb.

- Maximum amount of bee token(s) players can get in the whole game is limited to 20.
- Added buff token(s) to indicate who is having the buff.
- Added a discard pile in the sub game board.
- Limited the numbers of honeycomb.
  Level 1; 5 honeycombs
  Level 2; 5 honeycombs
  Level 3; 5 honeycombs
- Changes the design of the main honeycomb.
- Changes the design of the main game board.
- Adjustments to the buffing system.
  Player(s) who met 1 requirement gets 1 buff.
  Player(s) who met 2 requirements gets 2 buff.

Problem(s):

- The color of the different level of honeycomb are very confusing.
- Less extra point for other people when counting the scores.

Suggestion(s):

- Change the different level of honeycomb's color into the same color to make people understand which color is the team.
- Add one more extra point when final result- When the player with the most honeycomb will plus one score

Final Prototype
Modification(s):

- Changes the colour of every level of honeycomb to one single colour.
- Adjustments to the scoring system.
  Player with the highest amount of honey, plus 1 score.
  Player with the highest number of bees, plus 1 score.
  Player with the most honeycombs, plus 1 score.

  If there are 2 players with the highest score at the same time, roll the dice, the player with the higher outcome of dice roll wins.