



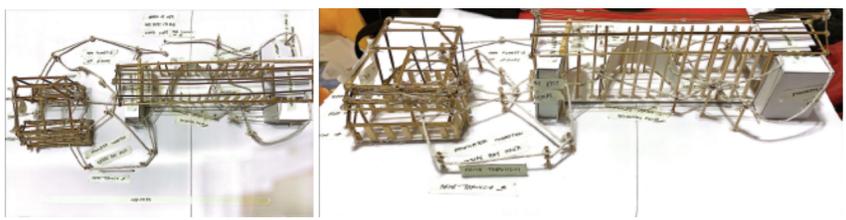
Scan to View Animation!



Huddle Duddle Hub is a sustainably-designed children's exercise and nutrition center that aims to tackle childhood obesity in Singapore through the use of Play Architecture, allowing children's autonomy, imagination, and freedom to coexist and be nurtured.

To seamlessly integrate structured and unstructured play, the project uses two interactive Follies: Flexibility Folly and Strength Folly to engage children in exercise and hands-on learning on nutrition through the use of urban farming. Garden Kitchens provide spaces for children to cook healthy meals using ingredients harvested from the Follies' farms.

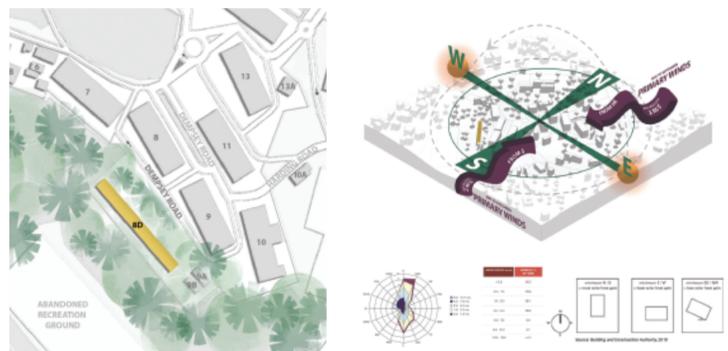
An innovative nutrition restaurant, situated in the adjacent building, offers healthy nutritious meals to be served fast. The observational kitchen gives an immersive learning experience for children. Huddle Duddle Hub represents a paradigm shift in play space design, addressing social issues and contributing to the well-being of future generations. It embodies the spirit of innovation and adaptability required in a changing world.



**STATISTICS**

From 2017 to 2021, the proportion of students who are **overweight** (BMI-for-age at or above the 19th percentile) in schools (primary, secondary and pre-university levels) had **increased from 13% to 16%**. The increase was mainly observed in the last two years. Due to Covid-19, opportunities for physical activities in schools had been impacted over the past 2 years. (Ministry of Health Singapore, 2022)

**SITE ANALYSIS 8D DEMPSEY ROAD, SINGAPORE 249672**



**WIND PATH**

From December until March, primary winds come from the Northeast direction while from May to September, wind flows mainly from the Southern side. During inter-monsoon periods, wind flows in various direction

**SUN PATH**

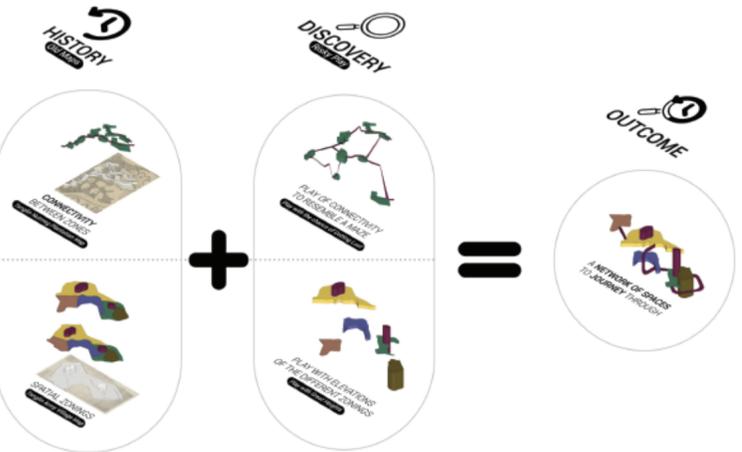
The harshest sun comes from the East-West side. The orientation of the longest side of the building is faces the North-East side and it means that there is not much solar heat gain towards the building.

**TARGET AUDIENCE**



Children (6 to 12 years old) Parents (appx. 30 to 45 years old)

**CONCEPT JOURNEY THROUGH HISTORY AND DISCOVERY**



The design aims to impact children positively by giving them the freedom/autonomy to venture on a journey where they could independently choose the paths they want to take. Historical and playful elements which involve risks would accommodate and engage children to go on a journey of self-discovery

**PROGRAMME**



Interactive installation for fun exercise



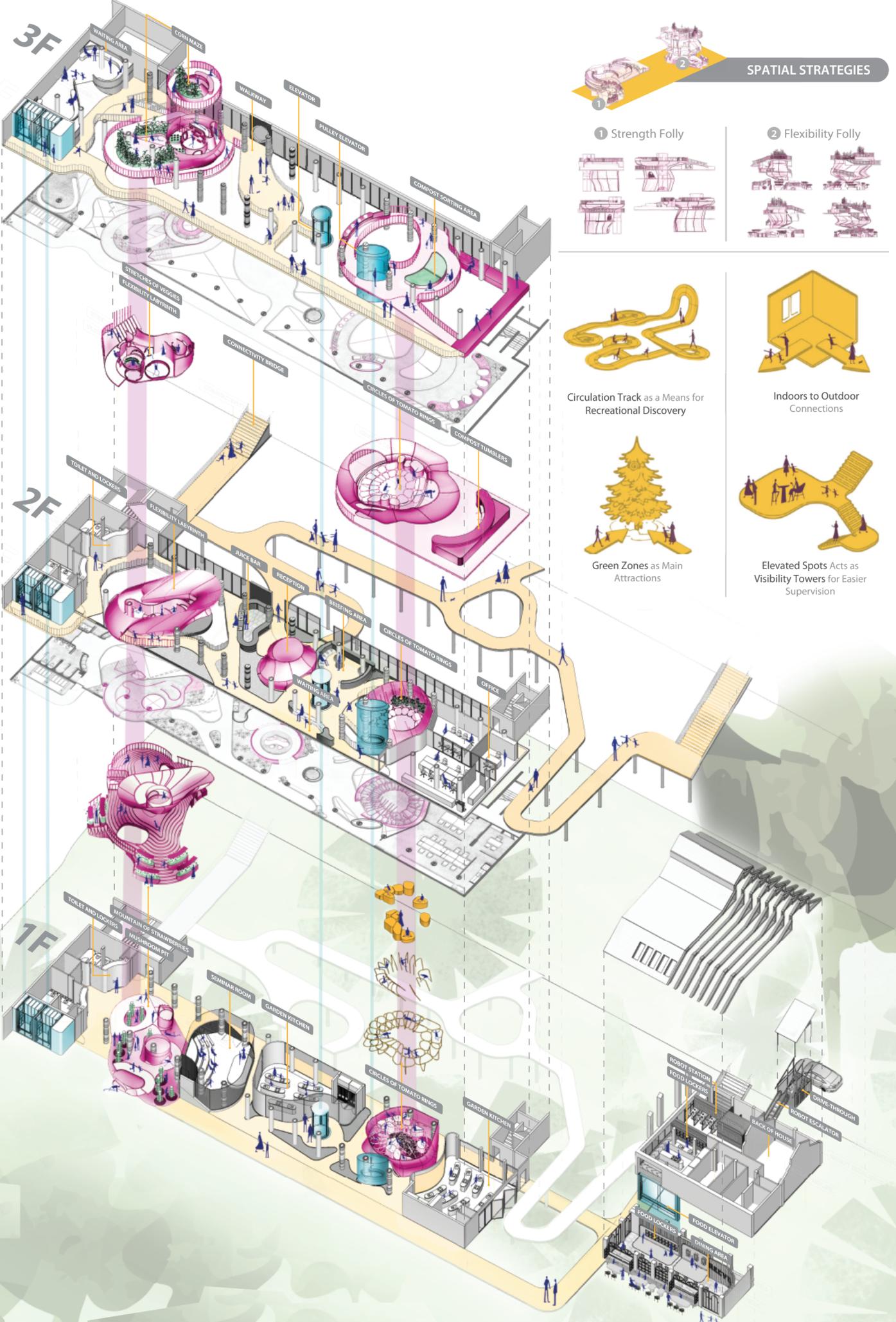
Urban farming for food and nutrition learning



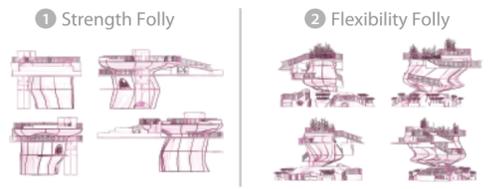
Garden kitchen for food and nutrition learning



Conceptual restaurant for unique and healthy eating experience



### SPATIAL STRATEGIES



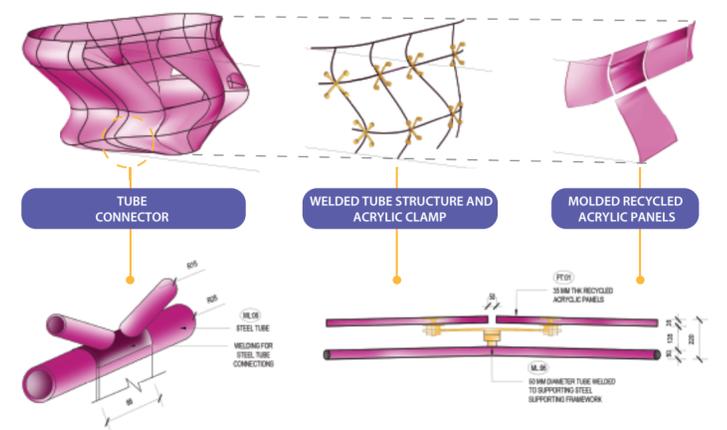
### FOLLIES

Children are invited to journey through the follies which consists of different strings of exercise obstacles. Obstacles provided varies from one folly to another. It fulfills different purposes which are developed from the fitness needs of kids in their middle childhood phase.



Exercise obstacles are also interchangeably mixed with urban farming areas. This would help children in understanding how healthy food are grown and hopefully by cultivating their own healthy food, they would be more spirited to consume healthy food.

### FOLLIES STRUCTURE



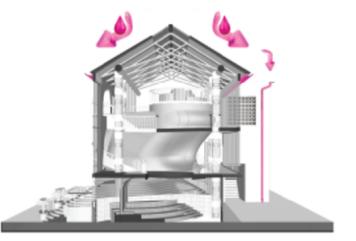
### MATERIALITY

Using funky colors as a way to engage excitement in children, especially when the activities conducted in the space requires a lot of energy. Besides, colors can act as a way to express the space's personality as that of children.

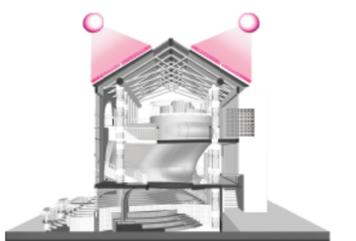


- 1 Recycled Acrylic Panel
- 2 Oak Wood Veneer
- 3 Low-iron Glass
- 4 Orange and Pink Plaster Paint
- 5 Ceramic Tiles with Mixed Grout
- 6 Perforated Black Metal Sheet
- 7 Blue Powder Coated Steel
- 8 Blue Powder Coated Steel
- 9 Greenery
- 10 Dark Blue Tile with Pink Grout
- 11 Furnitures made from Recycled Plastic

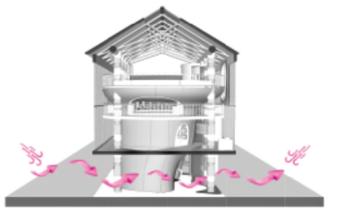
### SUSTAINABILITY



RAINWATER COLLECTION  
Gutter



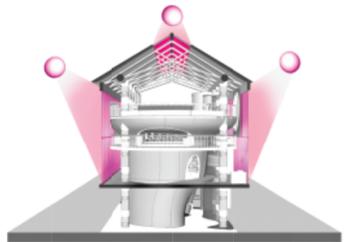
ENERGY EFFICIENCY  
Solar Panels



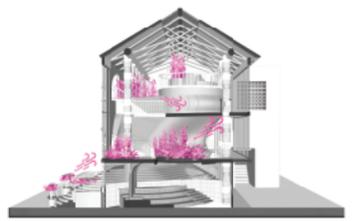
ENERGY EFFICIENCY  
Cross Ventilation



SUSTAINABLE MATERIAL  
Recycled Acrylic Panel



ENERGY EFFICIENCY  
Skylight and Glass Windows

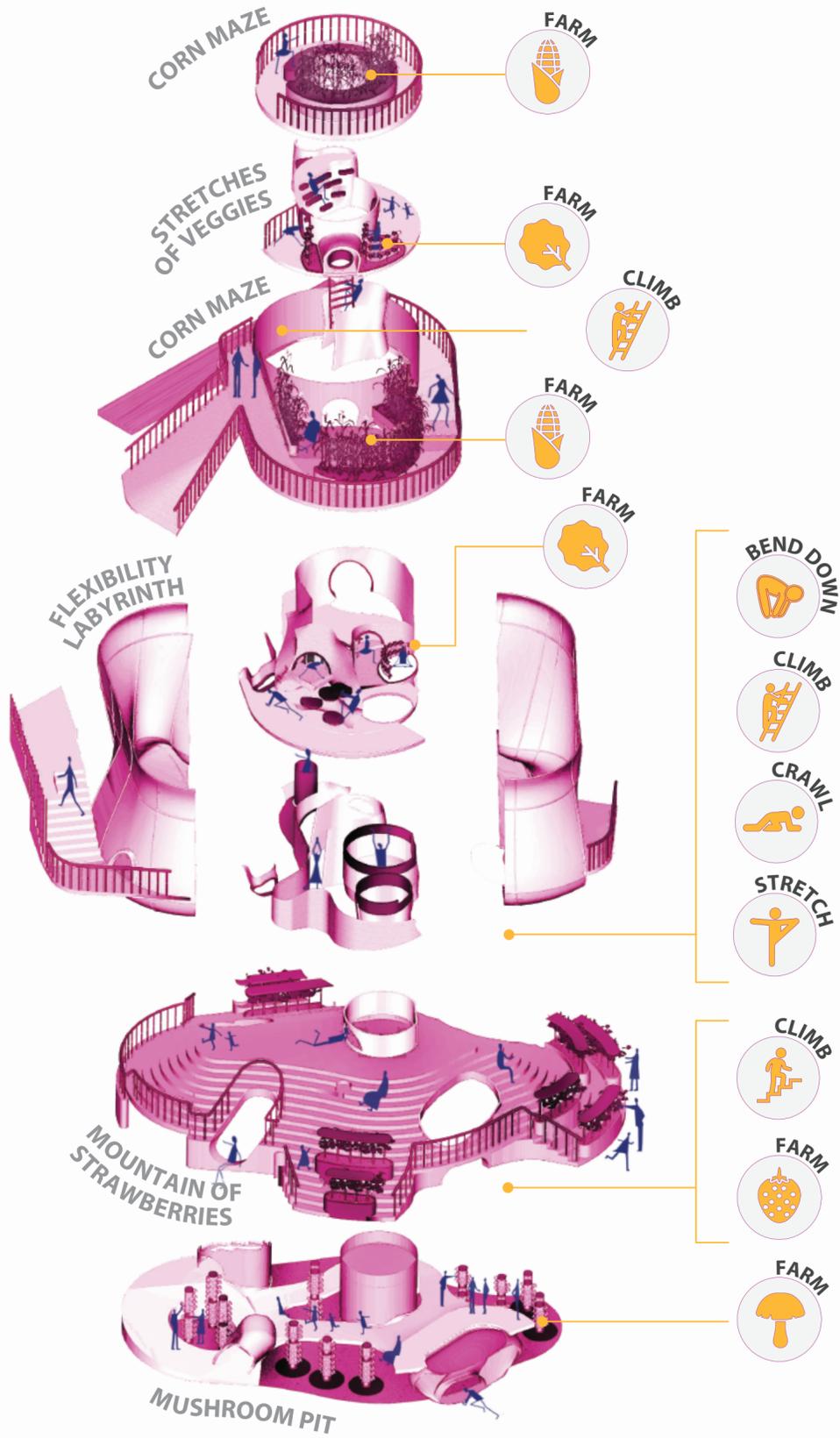
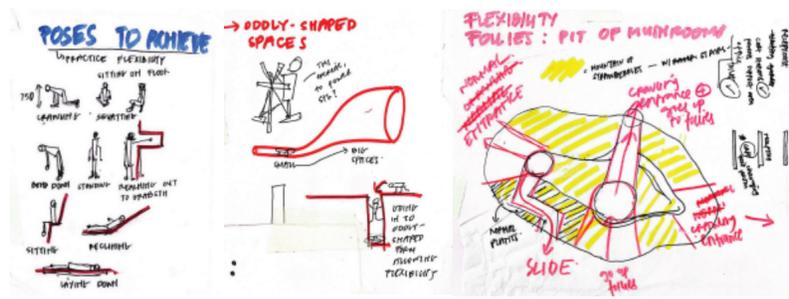


INDOOR AIR QUALITY  
Biophilia



# FLEXIBILITY FOLLY

Flexibility training involves forming the follies in a way that forces the children to move their body according to the follies' contours such as crawling, kneeling, laying down, etc. Farming elements are fused seamlessly into the exercise elements, enabling children to learn about ingredients which are nutritious while exercising at the same time. Children are free to wander around the follies through the circulation track. This gives children freedom and autonomy to explore and experience recreational discovery.



WALKWAY TO FLEXIBILITY FOLLY



MUSHROOM PIT



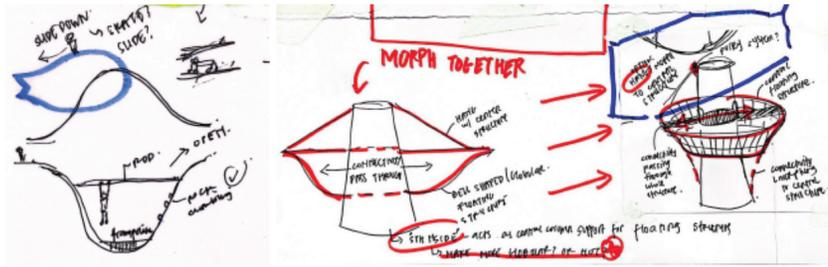
FLEXIBILITY LABYRINTH



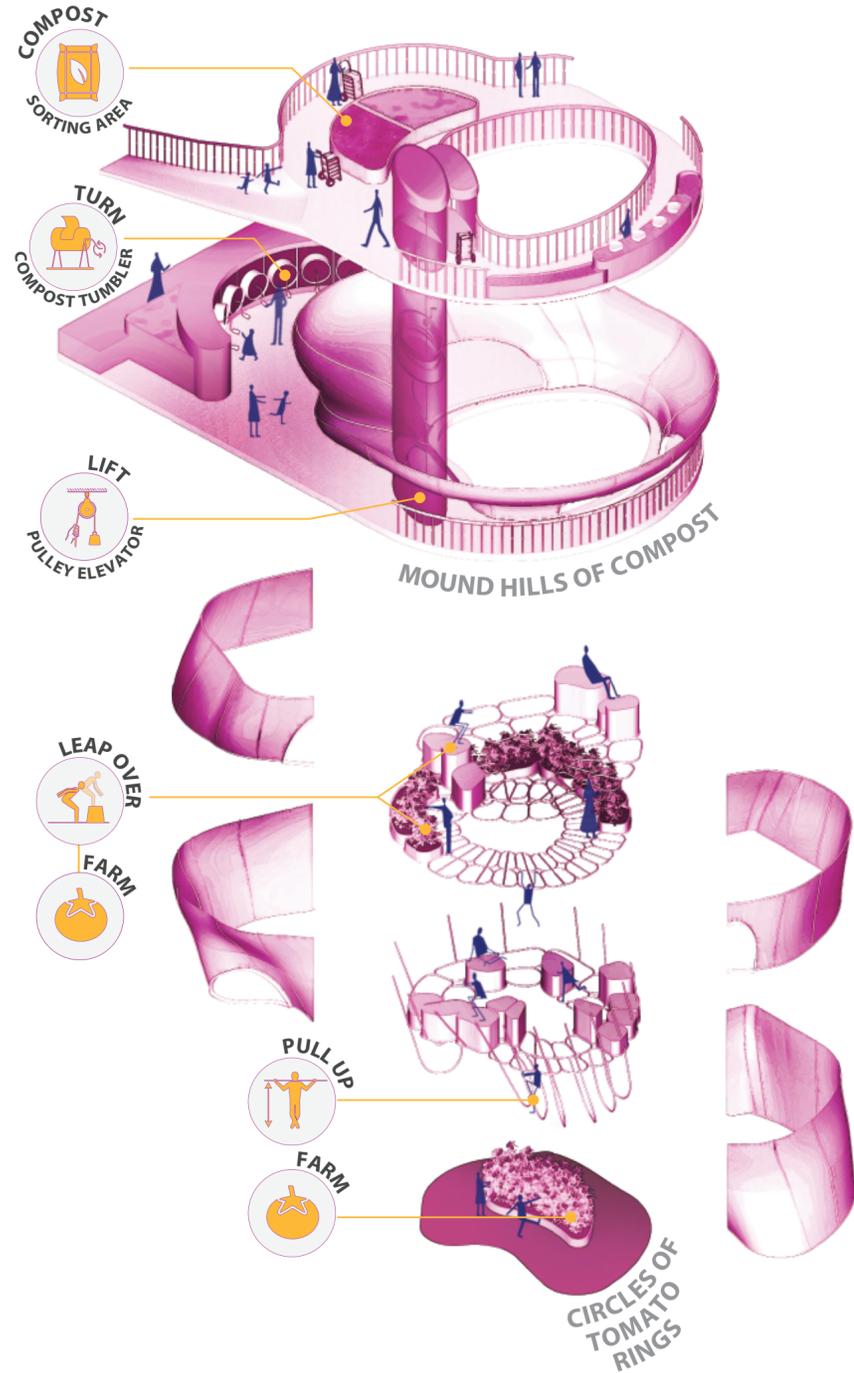
MOUNTAIN OF STRAWBERRIES EXTERIOR VIEW



CORN MAZE



Strength training involves exercise which are related to weightlifting and pullups. These basic movements are then translated to practiced in a fun way, such as through the use of pulley elevators and compost tumblers. This way, children can subconsciously be educated about farming/nutrition and sustainability through compost learning. Some follies elements such as the blocks on the tomato rings can be perceived and experienced in different ways by different children. Some child may perceive the block as an obstacle for them to jump or leap over while some may perceive it as a resting place for them to sit on. This is the goal of the follies as a fluid space, it is a "no one-size fits all" space



STRENGTH FOLLY AND RECEPTION



CIRCLES OF TOMATO RINGS



1



PULLEY ELEVATOR

Children can bring up composting ingredients from level 1 to level 3 by lifting them using the pulley elevator and using the trolley to transport it to the compost sorting area.

2



COMPOST SORTING AREA

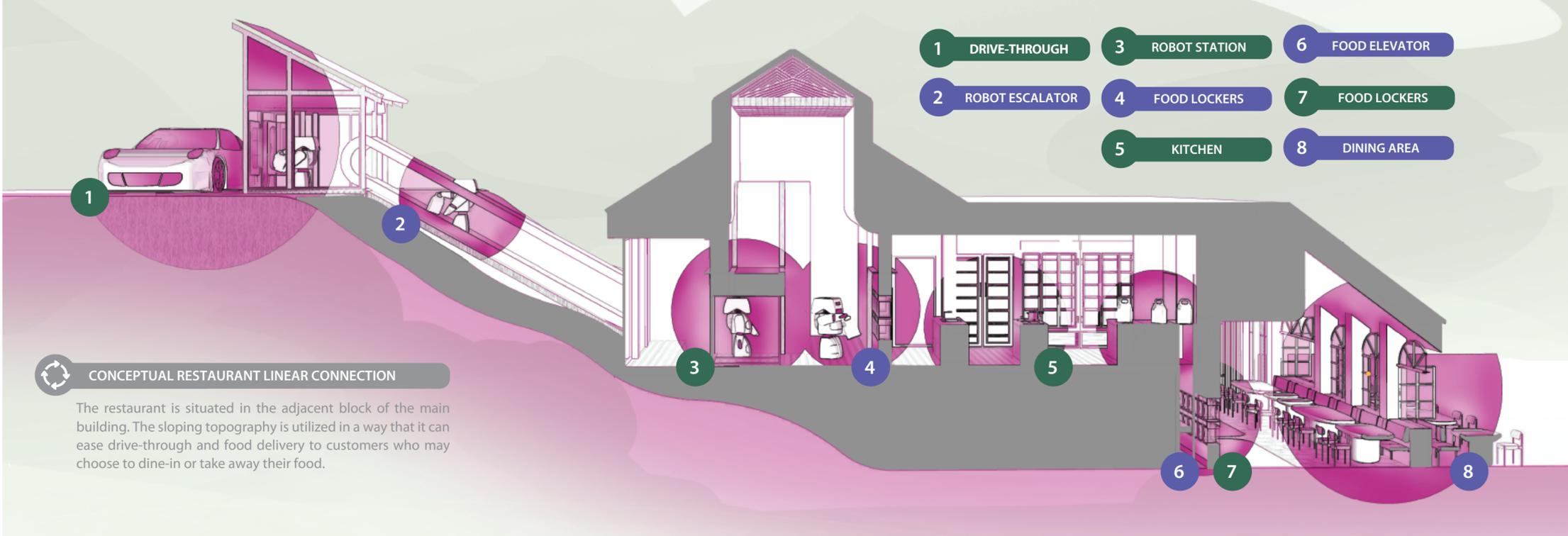
Compost making needs 2 categories of materials : greens (carbon-rich) and browns (nitrogen-rich). This becomes the place for them to sort these ingredients.

3



COMPOST TUMBLERS

The detachable compost tumblers can be carried and filled on the compost sorting area. The children will then go back to the compost tumbler station in order to turn and mix the ingredients inside the tumbler.



**CONCEPTUAL RESTAURANT LINEAR CONNECTION**

The restaurant is situated in the adjacent block of the main building. The sloping topography is utilized in a way that it can ease drive-through and food delivery to customers who may choose to dine-in or take away their food.



**FOOD LOCKERS**  
**ROBOT STATIONS**

Food lockers keep food farm while food-delivery robots offer speed and convenience for drive-through/pickup consumers



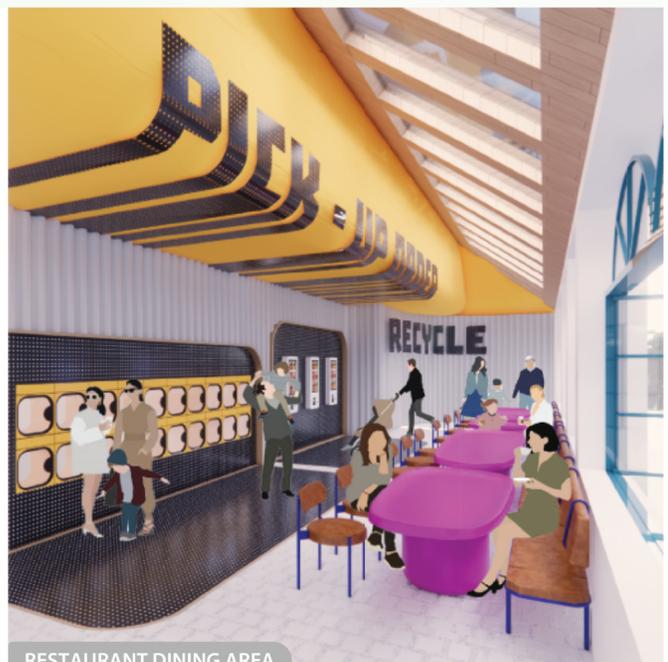
**SEMINAR ROOM**

Common area for events and workshops



**GARDEN KITCHEN**

Kitchen space for children to cook vegetables and mushrooms harvested in the follies into healthy delicious meals



**RESTAURANT DINING AREA**

No waiters are needed in the restaurant as there are food lockers available

