

PUBBY

PUBBY is a social media innovation attempt at building a social tool that seeks to address these shortcomings while at the same time leveraging current developments in technology that not only enable better ways of connecting with people but are increasingly establishing new interactive relationships with the computer itself through use of human sensory capabilities such as touch and gesture as input modes, to go beyond the conventional input devices of the mouse and keyboard.

In recognizing these possibilities, PUBBY as an innovative experimentation challenges itself into building an environment of play through storytelling, whereby, rather than being tied down to a device, the child is left free to use gestures and body movements to interact with the computing environment.



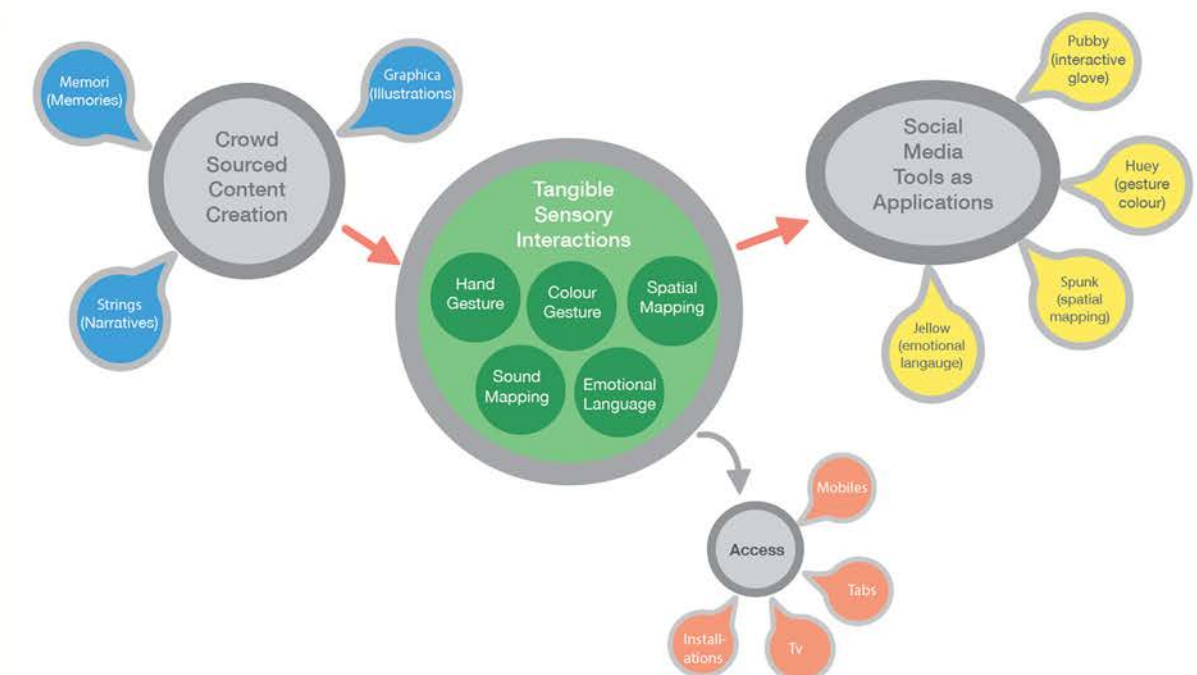
In the process, PUBBY leverages for its development the following conditions:

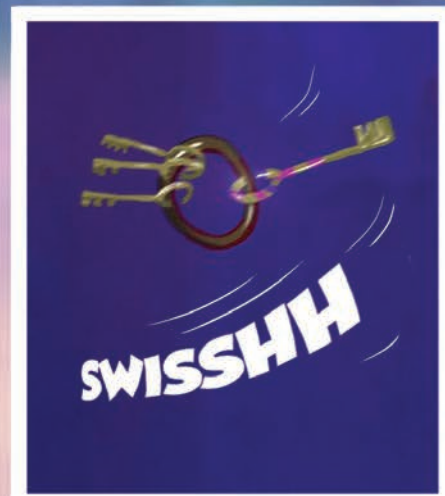
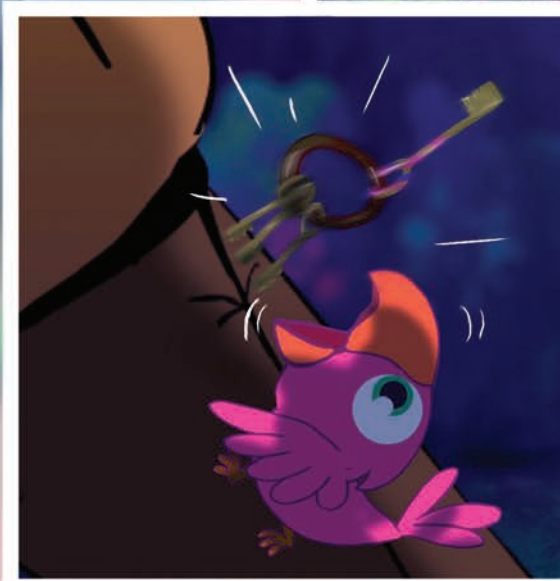
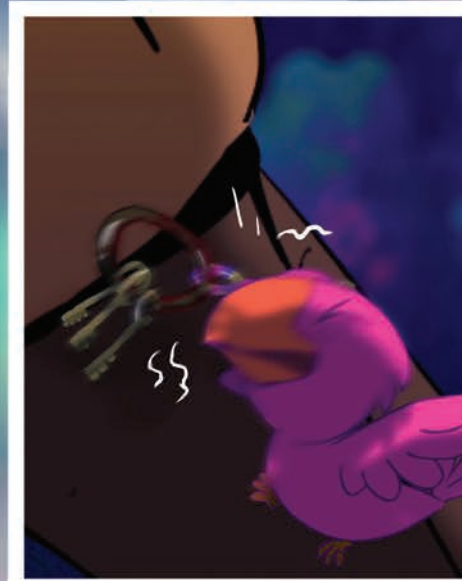
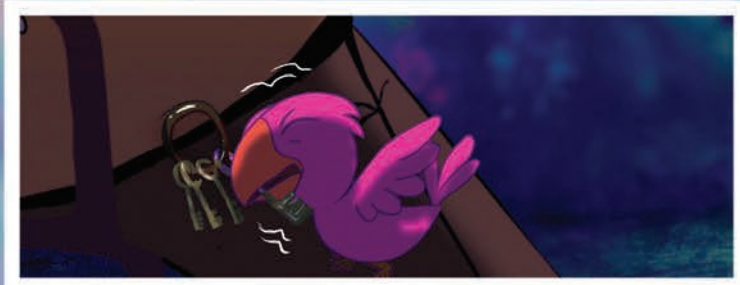
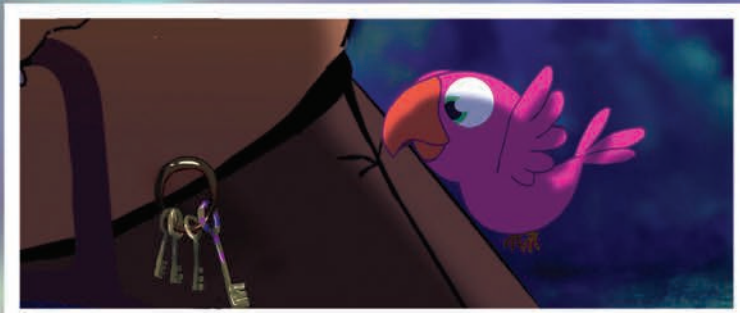
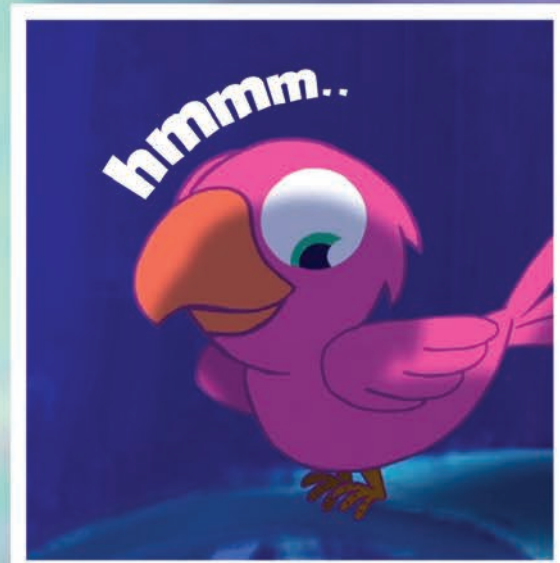
- (i) A natural inclination of children in their pre-operational stage of development(2-7 years) to be curious and expressive, to explore, to learn and to share with family and friends;
- (ii) The agency of social media as a technology with global outreach into different geographies and cultures to connect with a diverse group of audiences and resources (stories, images, sounds, languages), in the process enriching the child's social and learning environments;
- (iii) The agency of the puppet as a universal and hence an easily recognizable entity of play as well as a potent cultural tool for socialization through exchange of puppet-driven storytelling (with all the learning that remains incipient to such activities of conviviality).

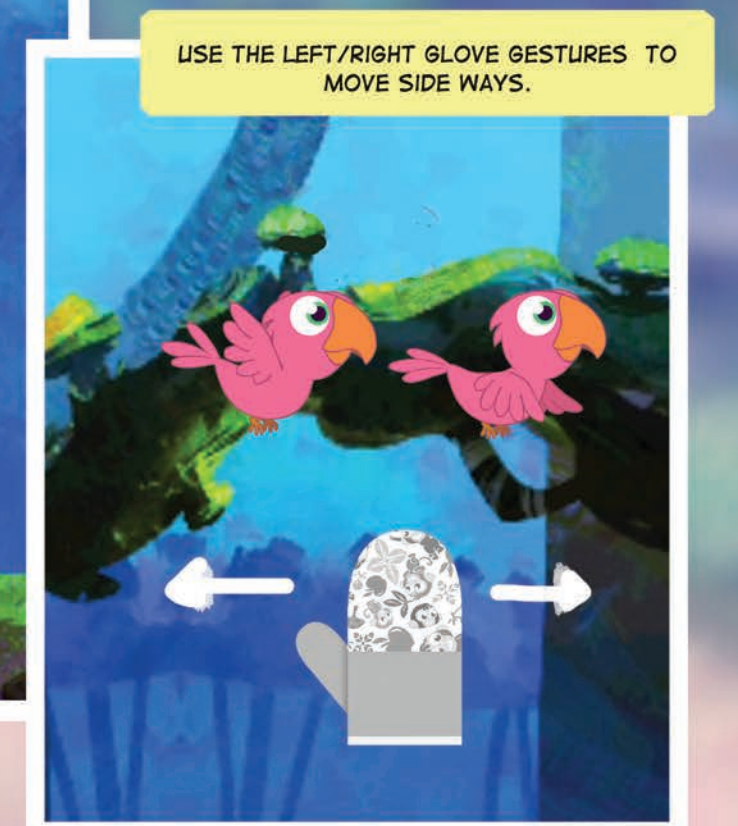
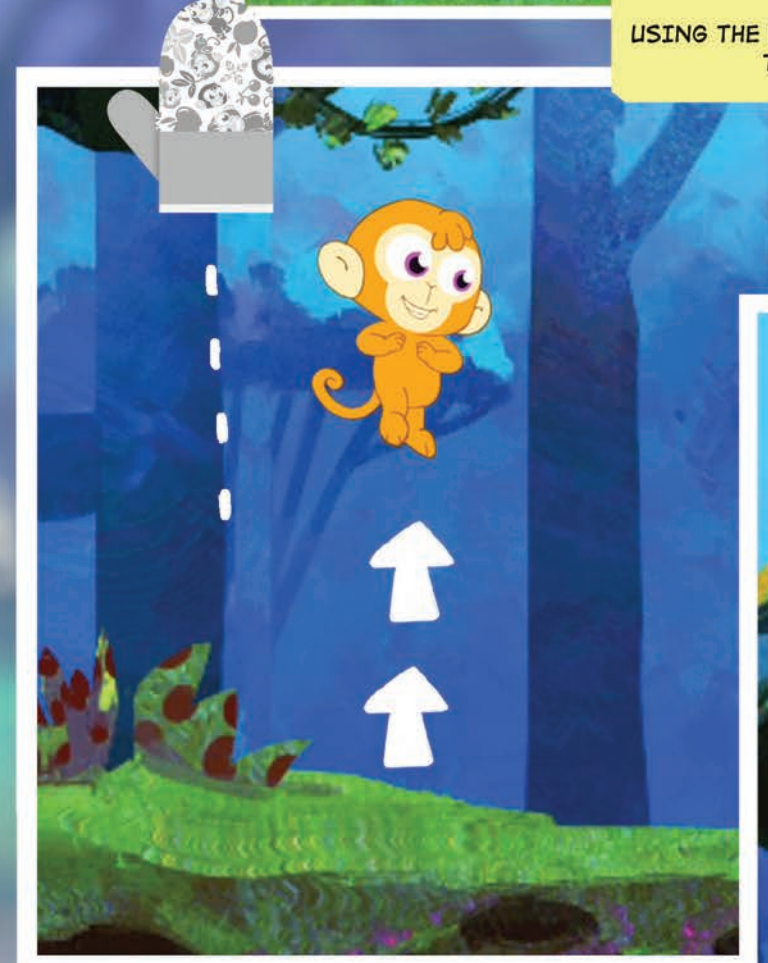
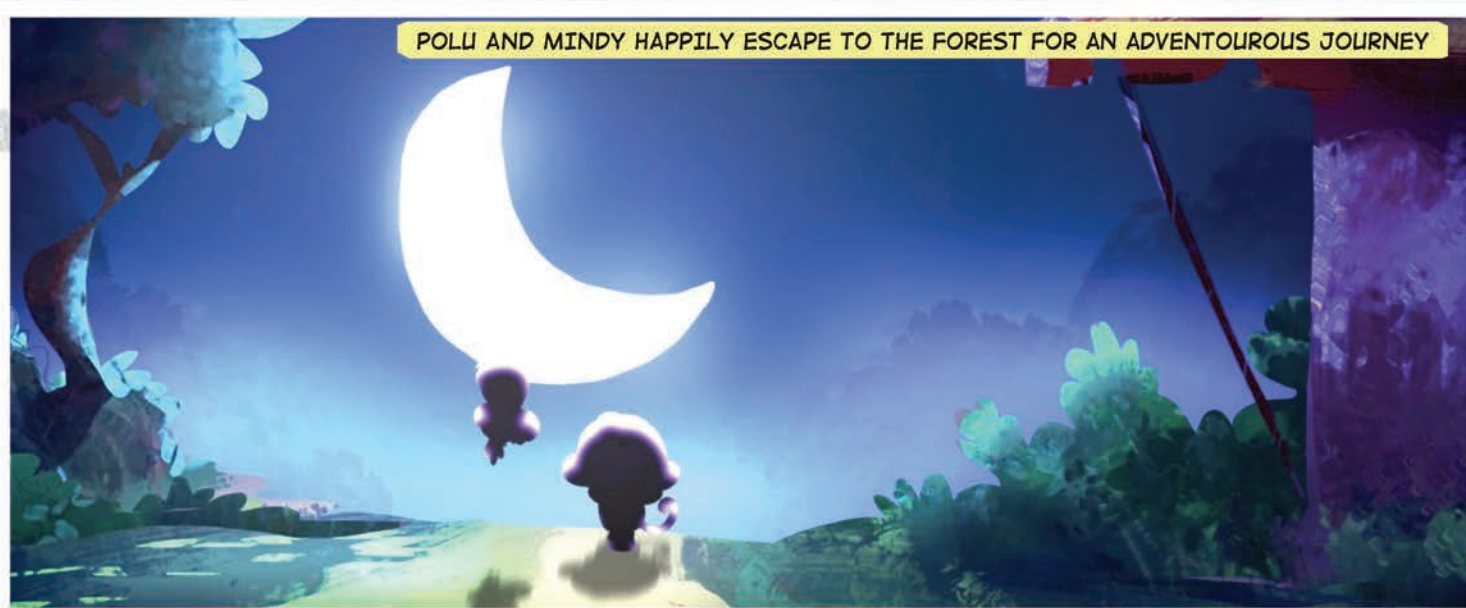
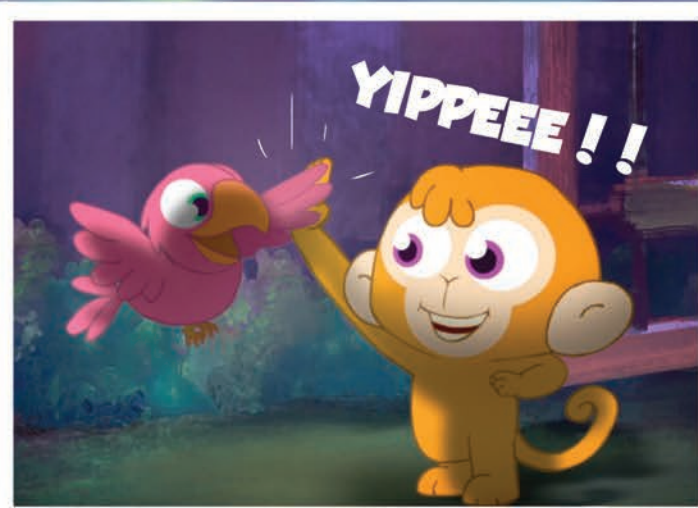
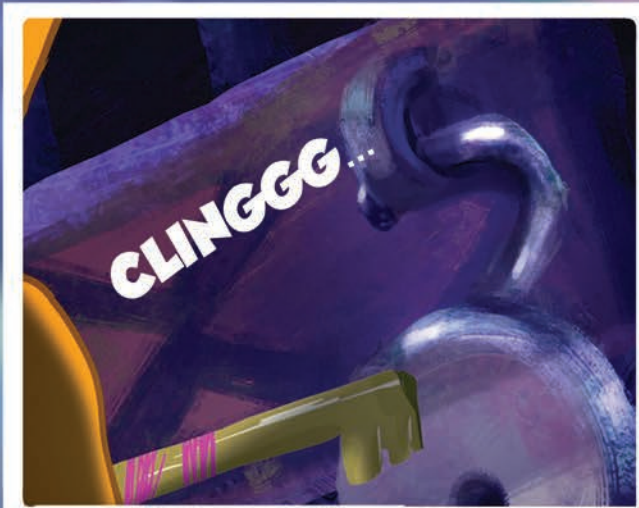
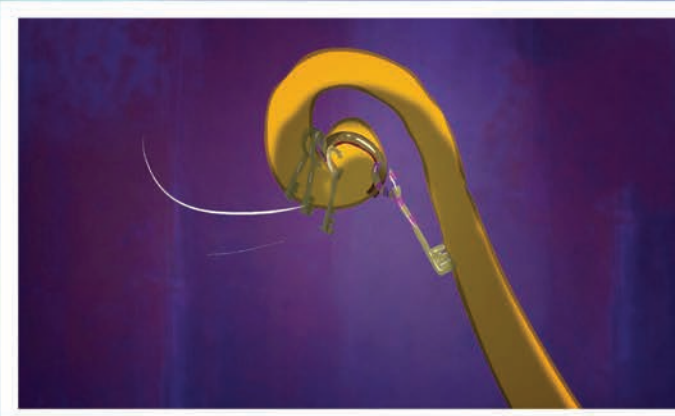
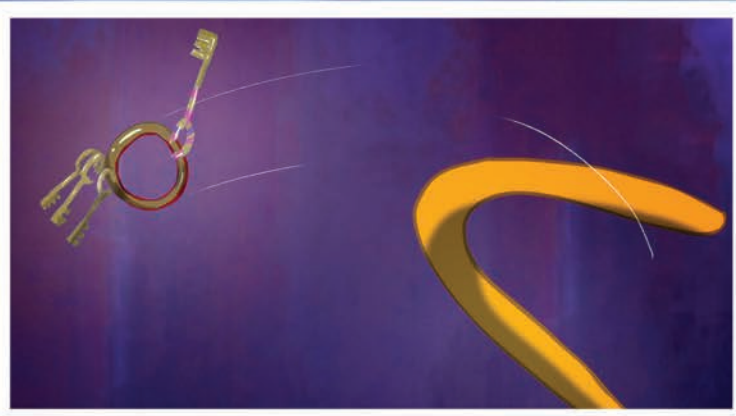
PUBBY is based on work that has been driven by a design-oriented research approach using participatory design that encourages children to use PUBBY to build their own stories, own characters, etc., in their bid to connect with the real outside world. This participatory design process has been consciously used as a design tool right from its ideation stage to the development of the concepts, and moving on to evaluating the prototype.

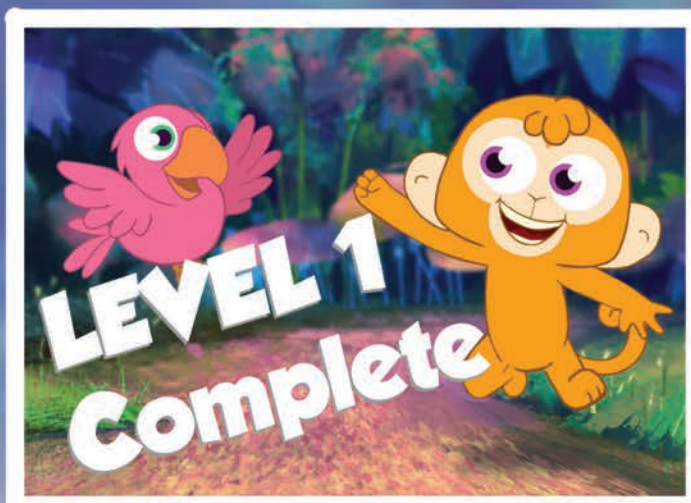
The physical hand puppets have a virtual representation in the virtual environment as a character. The gestures/act the child performs while wearing the puppet is imitated by virtual representation of a character on the screen. This gives an immediate feedback to the child that he/she has full control over the character both virtually and physically. Which results in a sense of achievement, as he/she experiences the outcome of their roleplaying.

The feedback further extends to auditory feedback; character on screen reacts to the voice input, if the child gives a voice command the character will follow that as well. Similarly the peer connected remotely can see his and his friend's character on screen together, to enable multiplayer activity. This provides an intuitive platform to interact, engage, play and learn from their mentors and peer who are not located in the same physical space.

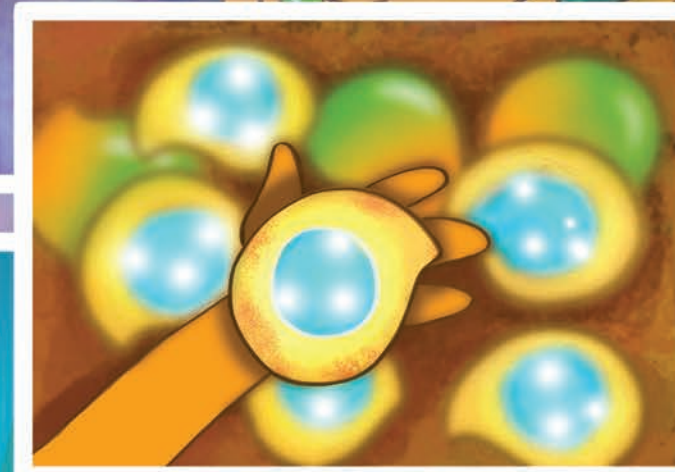
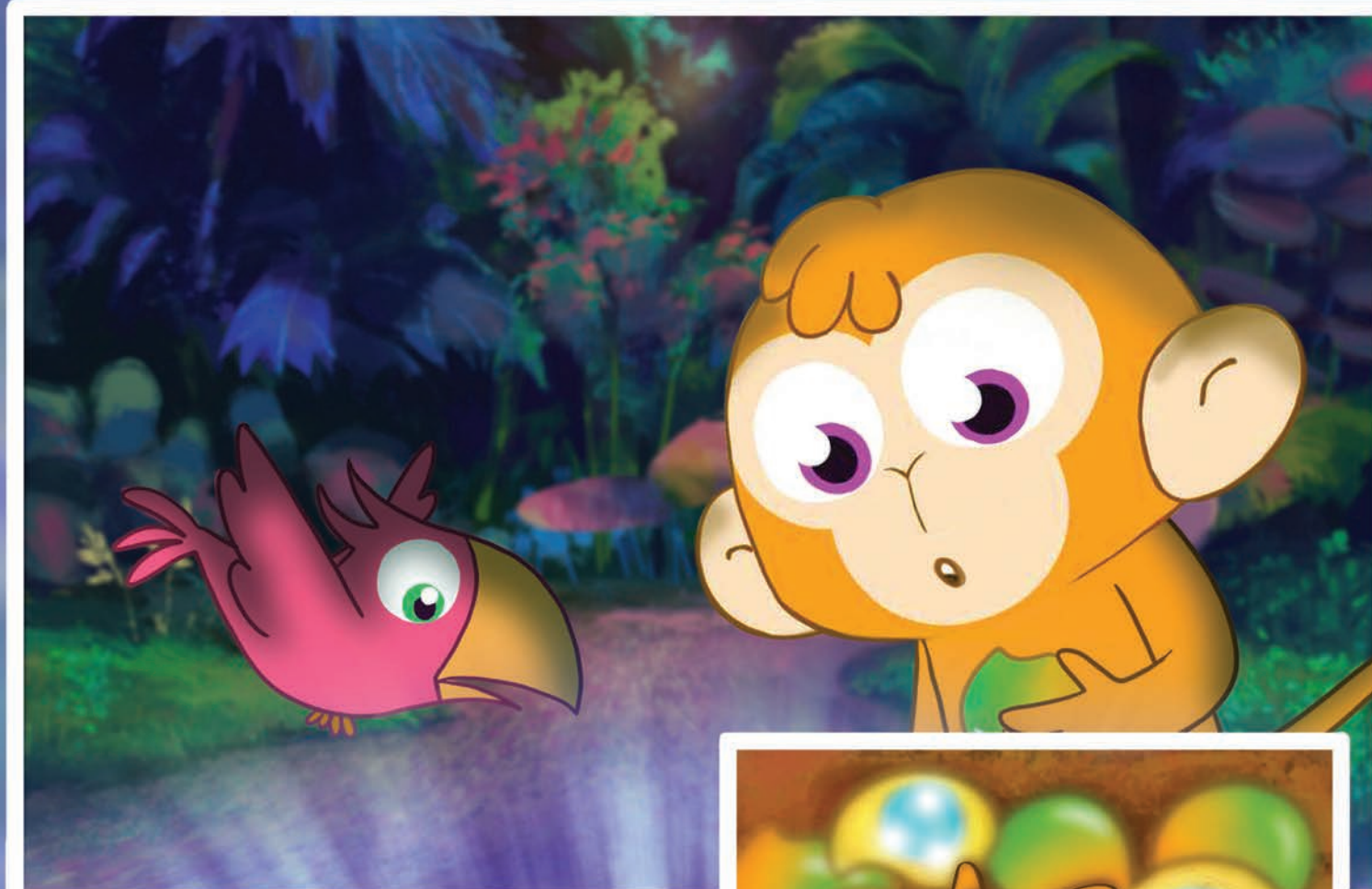
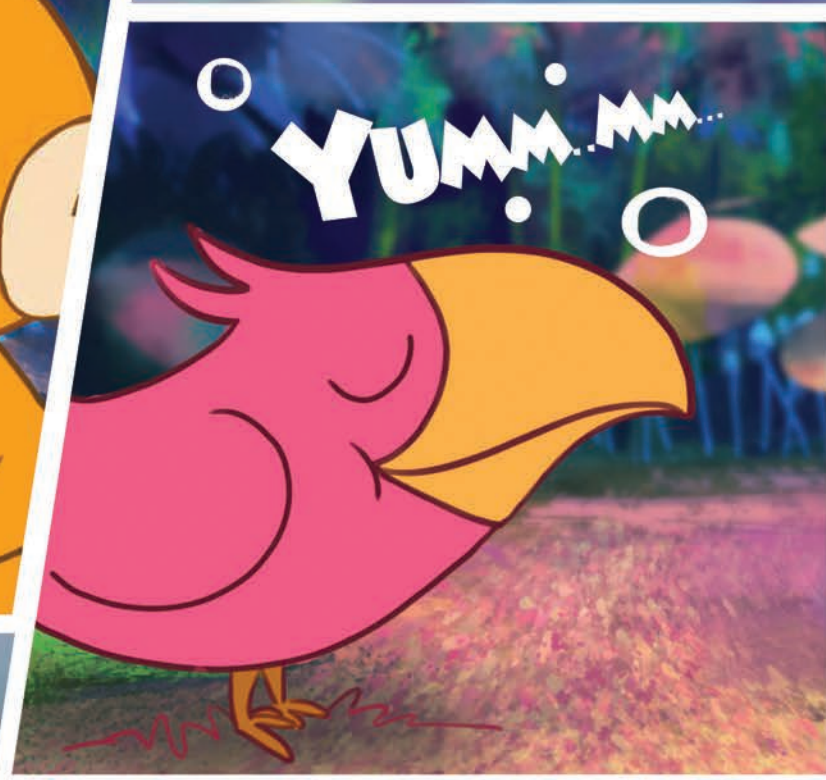








POLLI AND MINDY RELISH THE JUICY MANGOES...



LEVEL 2



IN THE MIDST OF THE DEEP FOREST...



POLU AND MINDY CONTINUE THEIR ADVENTUROUS JOURNEY



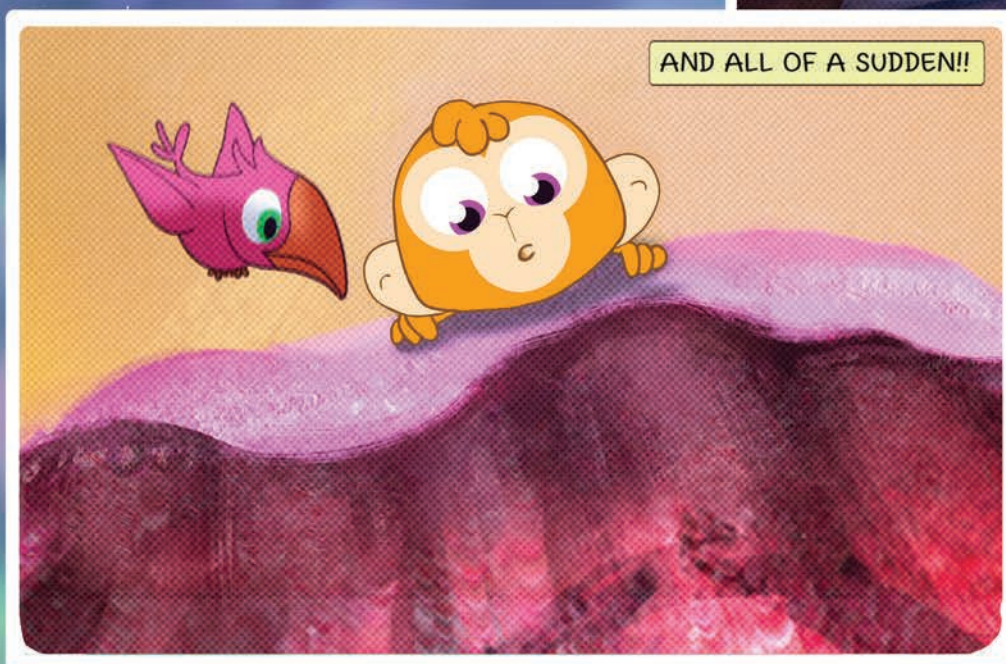
DODGING HURDLES IN THEIR PATHS...



THEY STUMBLE UPON A HUGE CLIFF!!



A BARREN LAND WITH NO PLANTS AND TREES



AND ALL OF A SUDDEN!!



OH NO !
OUR SEED!!

LEVEL 2



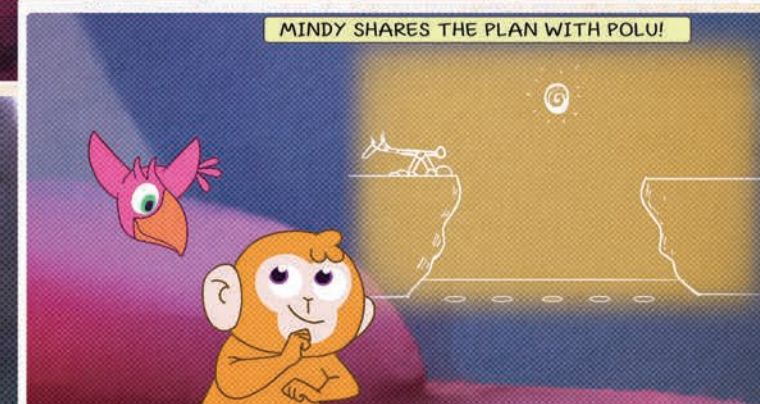
TO THEIR SURPRISE , A BEAUTIFUL SPROUT POPS UP!!



CURIOUS MINDY FLIES OVER TO SEE WHAT HAPPENED!

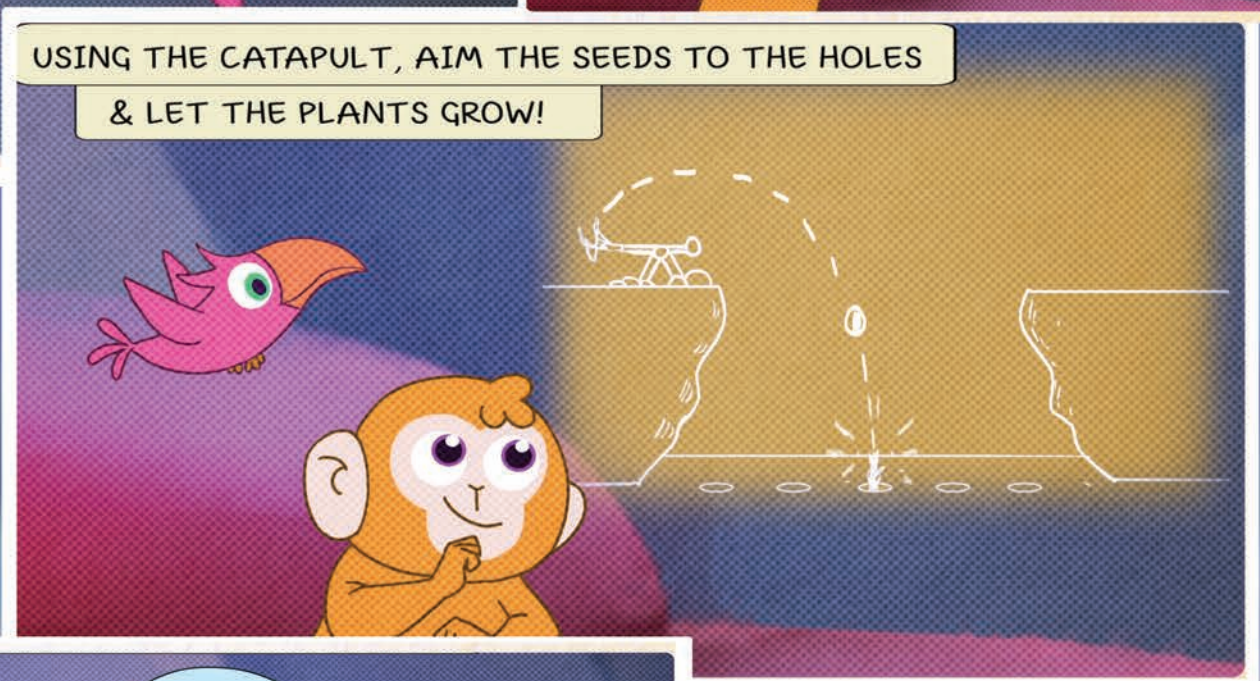


I GOT AN
IDEA!!!



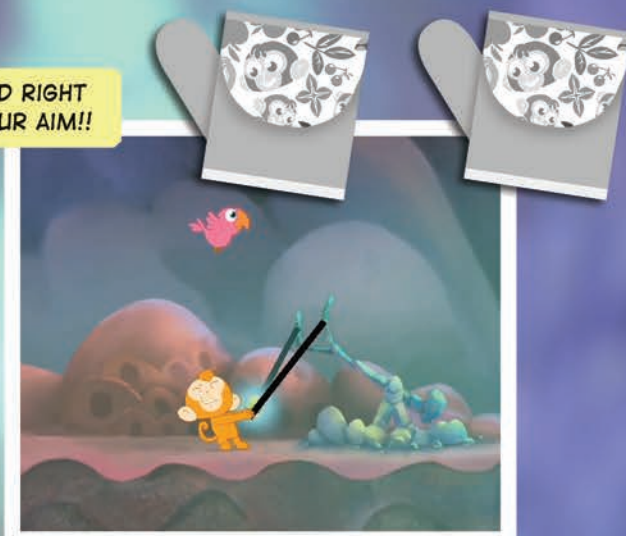
MINDY SHARES THE PLAN WITH POLU!

USING THE CATAPULT, AIM THE SEEDS TO THE HOLES
& LET THE PLANTS GROW!



LETS
PLAY!!!

AFTER THE GRABBING GESTURE, MOVE THE GLOVE LEFT AND RIGHT TO MOVE THE CHARACTERS ON SCREEN, THEN PREPARE YOUR AIM!!



UNFOLD YOUR HAND NORMALLY TO RELEASE THE SEEDS TOWARDS THE HOLES!

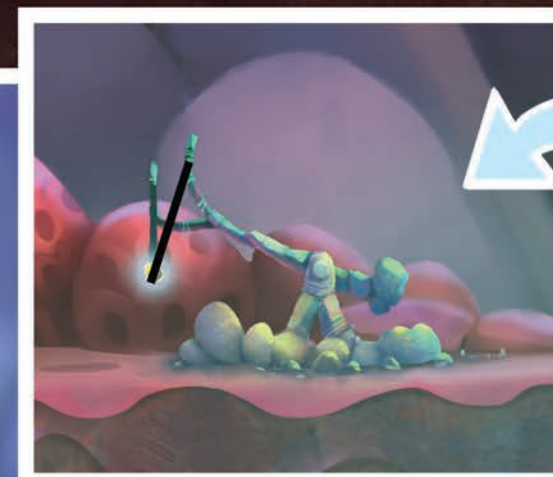


SIMILARLY, USING THE SAME GESTURES MENTIONED, YOU CAN ALSO GUIDE MINDY WITH HER GLOVE PATTERN IN THE GAME..



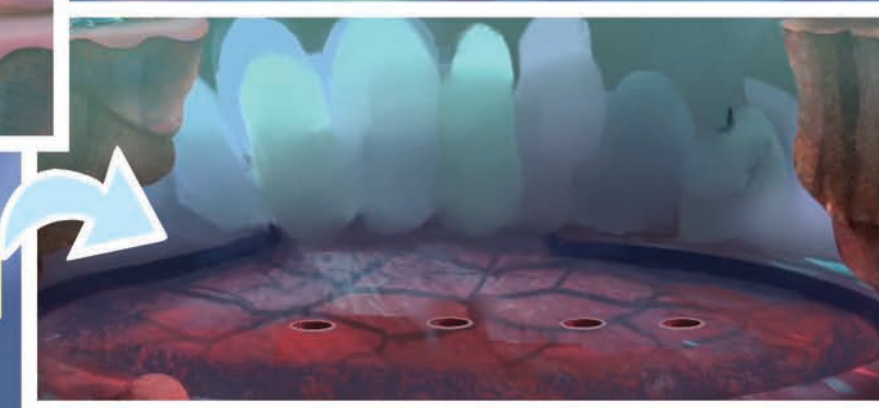
LEVEL 2 - GAMEPLAY...

THIS STAGE REQUIRES POLU AND MINDY TO THROW SEEDS INSIDE THE HOLES BELOW TO HELP THE PLANTS GROW!!!



USING THE CATAPULT, POLU AND MINDY CAN LAUNCH THE SEEDS INTO THE TARGET IN THE BARREN LAND.

THE TARGET ARE THE BLACK HOLES LOCATED IN THE BARREN LAND.



USING THE SAME GLOVE HAND GESTURE, MOVE THE CAHARACTERS NEARER TO THE CATAPULT TO LAUNCH THE SEEDS. FACE THE GLOVE INFRONT OF THE SCREEN AND FOLD THE FINGER TO START THE "GRAB GESTURE".



Art and Animation Development Process

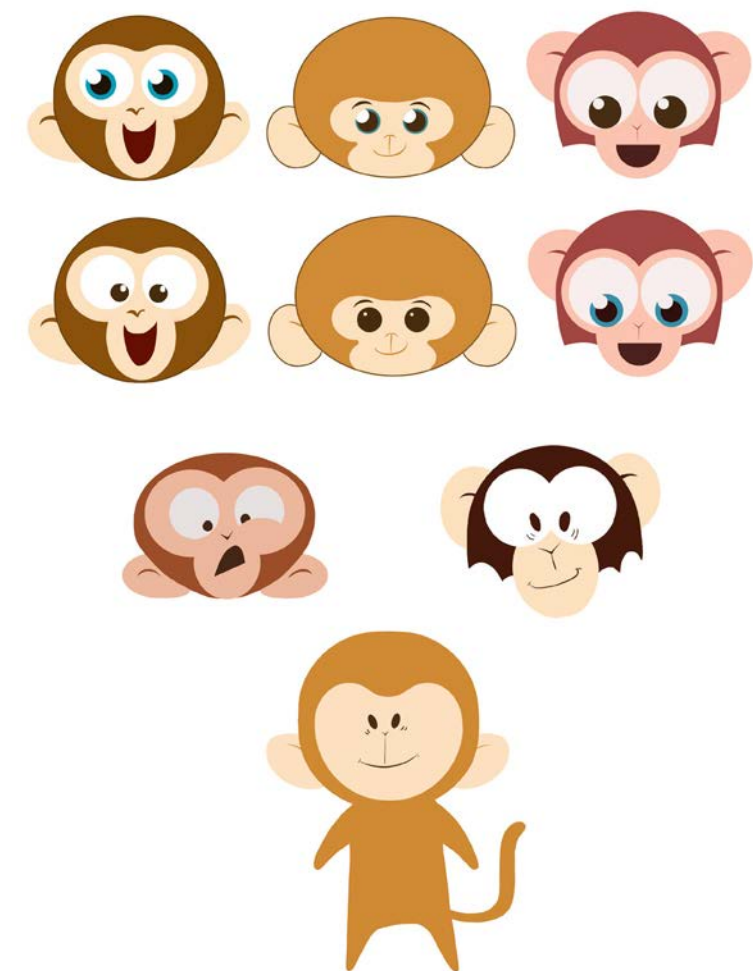
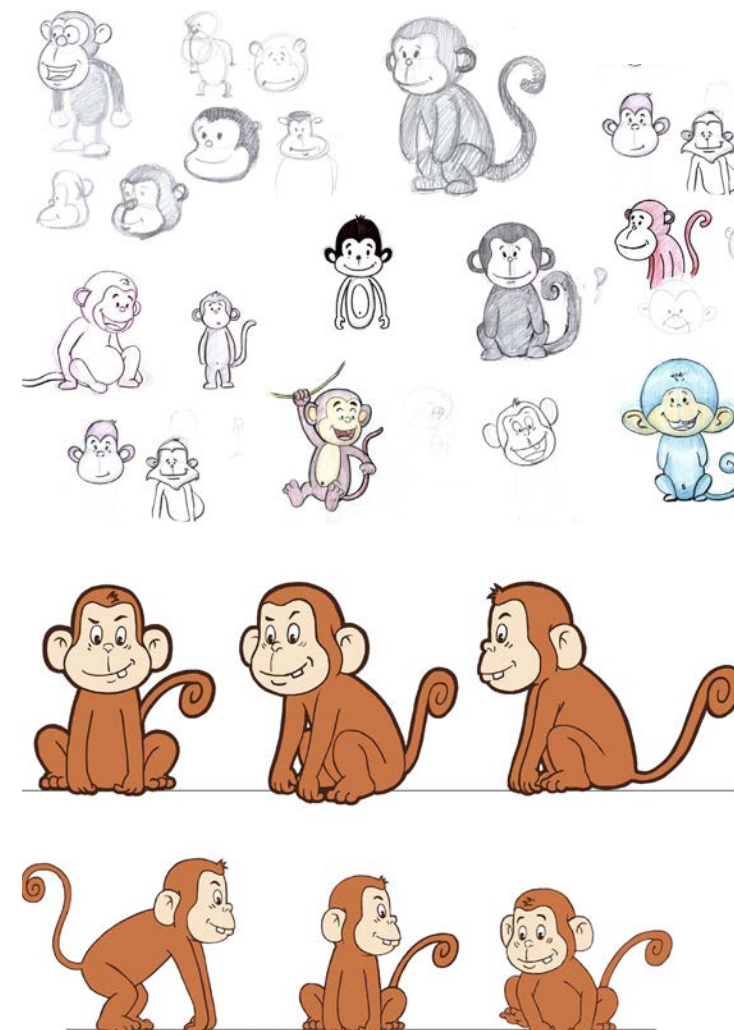
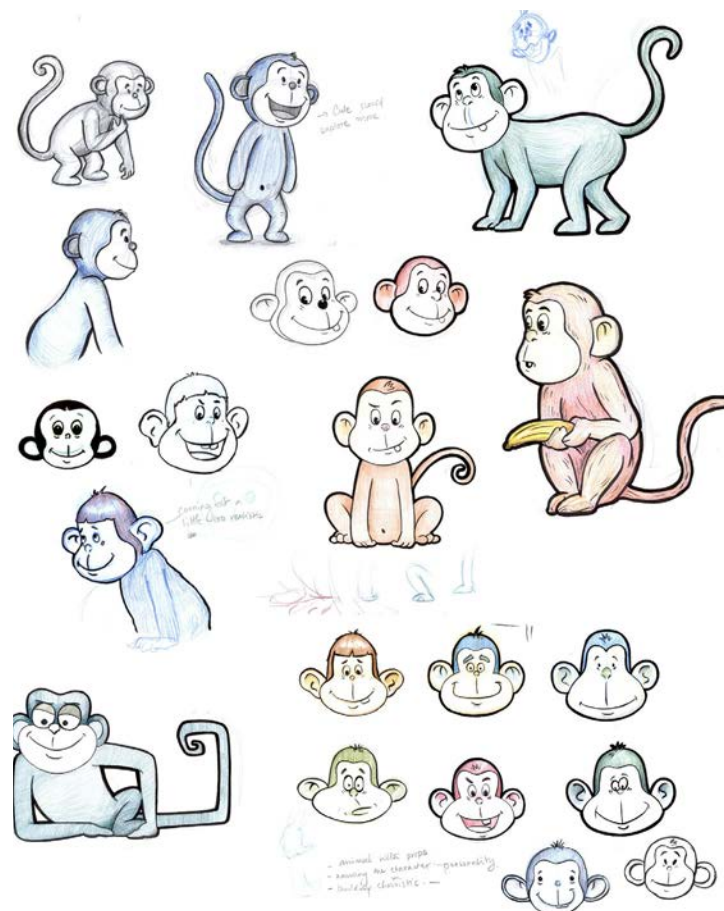
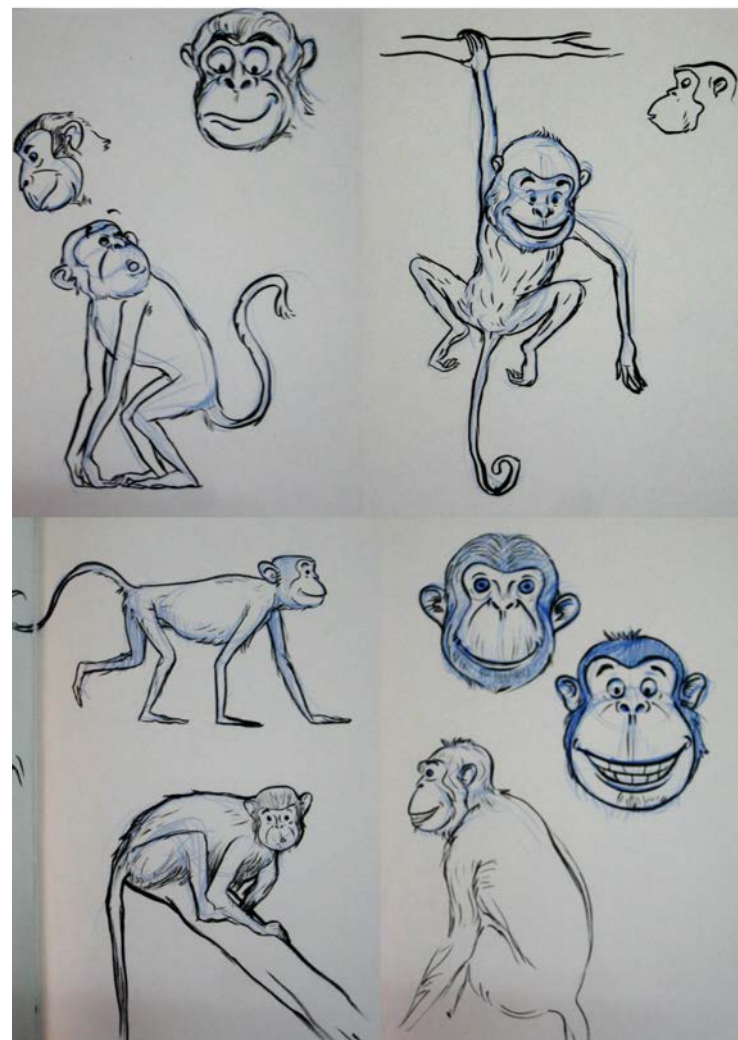
The visual style of PUBBY is designed focusing principally for children of the young primary level. The look and feel is kept colorful and vibrant, which is quite common color palette on general children's games.

Character Design and Explorations

PUBBY is a two player interactive gesture based game comprising of two main characters - monkey named Polu and bird named Mindy. This section comprises of exploratory sketches done for the main characters. Various study sketches were done by the artist to understand the behaviour and the visual appeal of the animals.

Polu Character Design

Polu is a fun loving cute monkey who has just managed to escape the circus and is ready for the real life adventures in the forest. Keeping the target audience in mind, the character was designed with a focus on retaining its adorable nature and innocence.

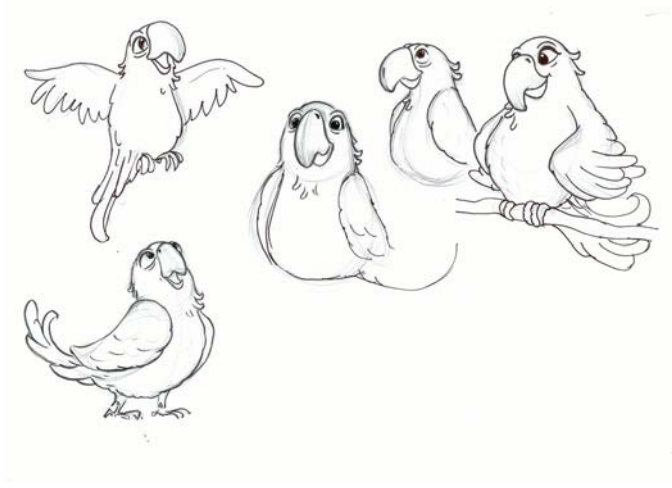


Polu Final Character Design

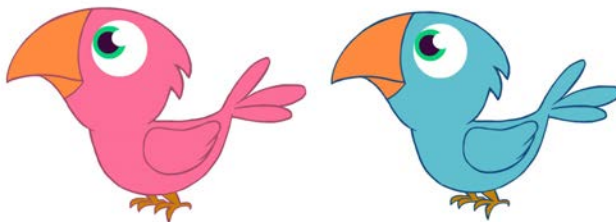
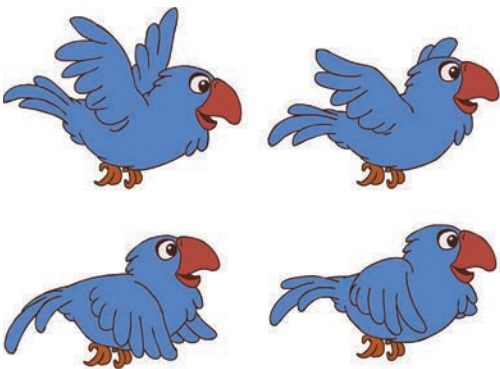


Mindy Character Design

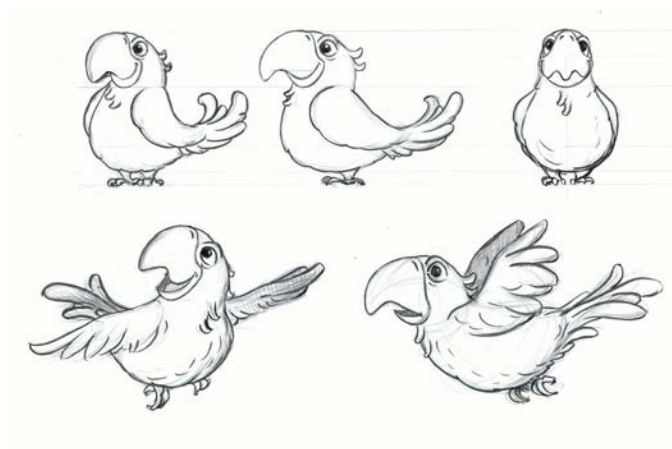
Mindy is a delightful and clever little bird, who helps Polu escape the circus. After befriendng Polu, Mindy joins him in their further adventures through the wilderness, and becomes a great companion and guidance during their journey ahead.



Mindy Final Character Design



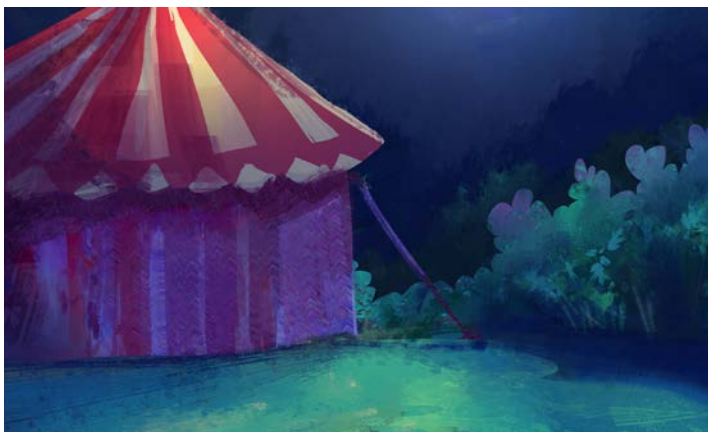
Circus Guard Character Design



Concept Art for the 'Pubby World'

Circus Establishment Explorations

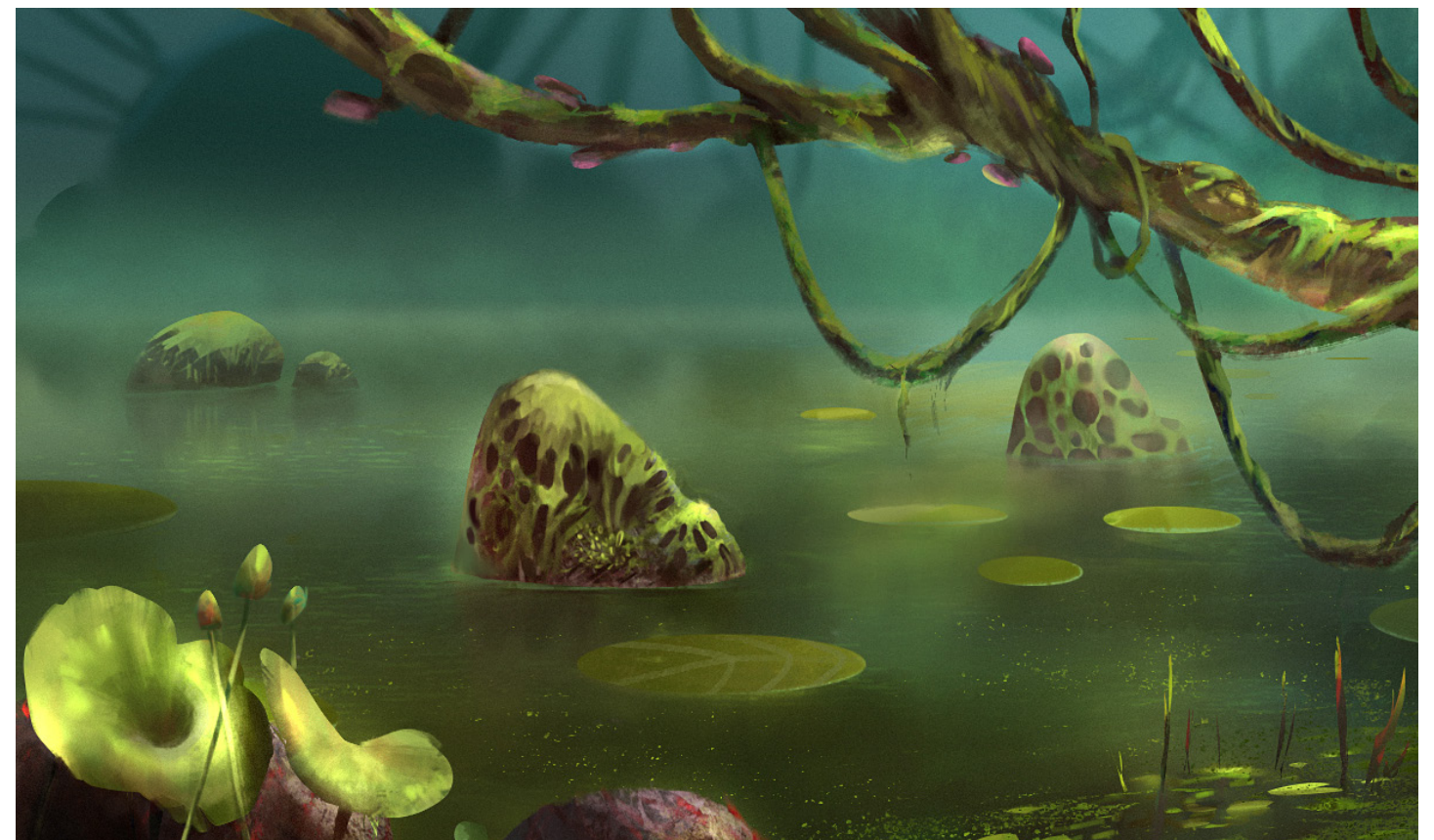
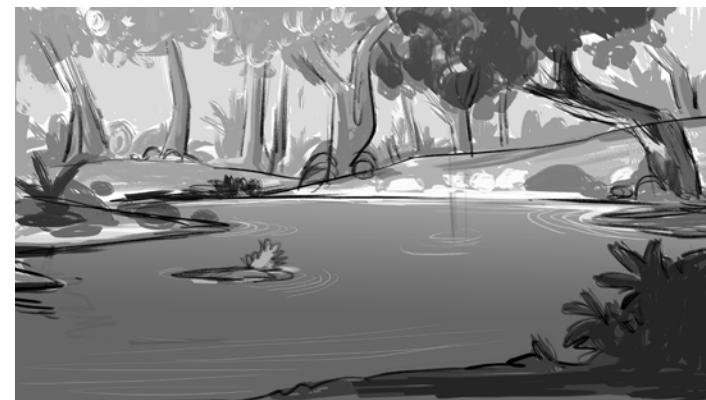
This is the initial premise where the story begins. These are the artworks which determines the environment designs from where the two characters start their adventures from. Later these designs became the visual library for the game cutscenes.

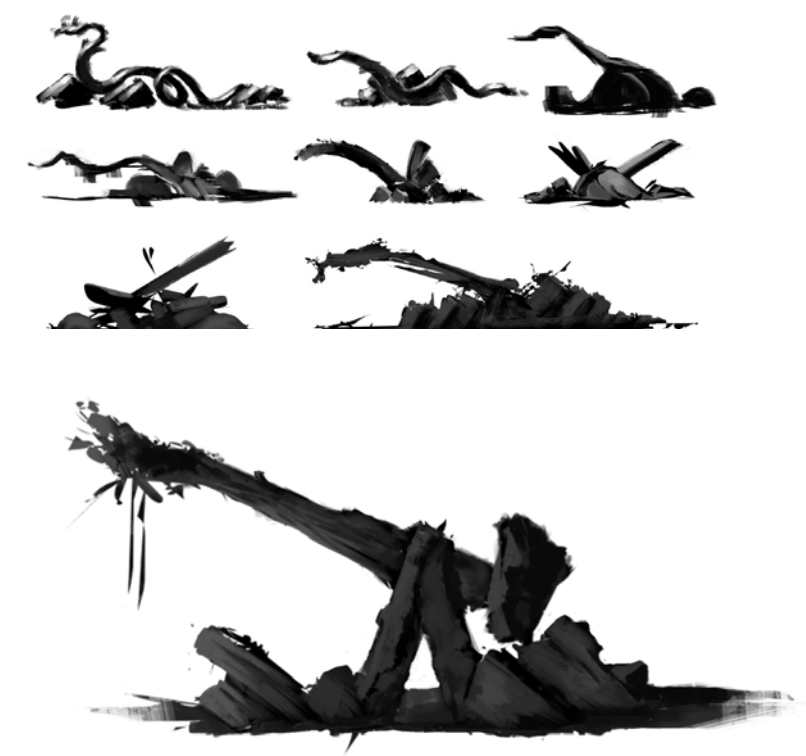
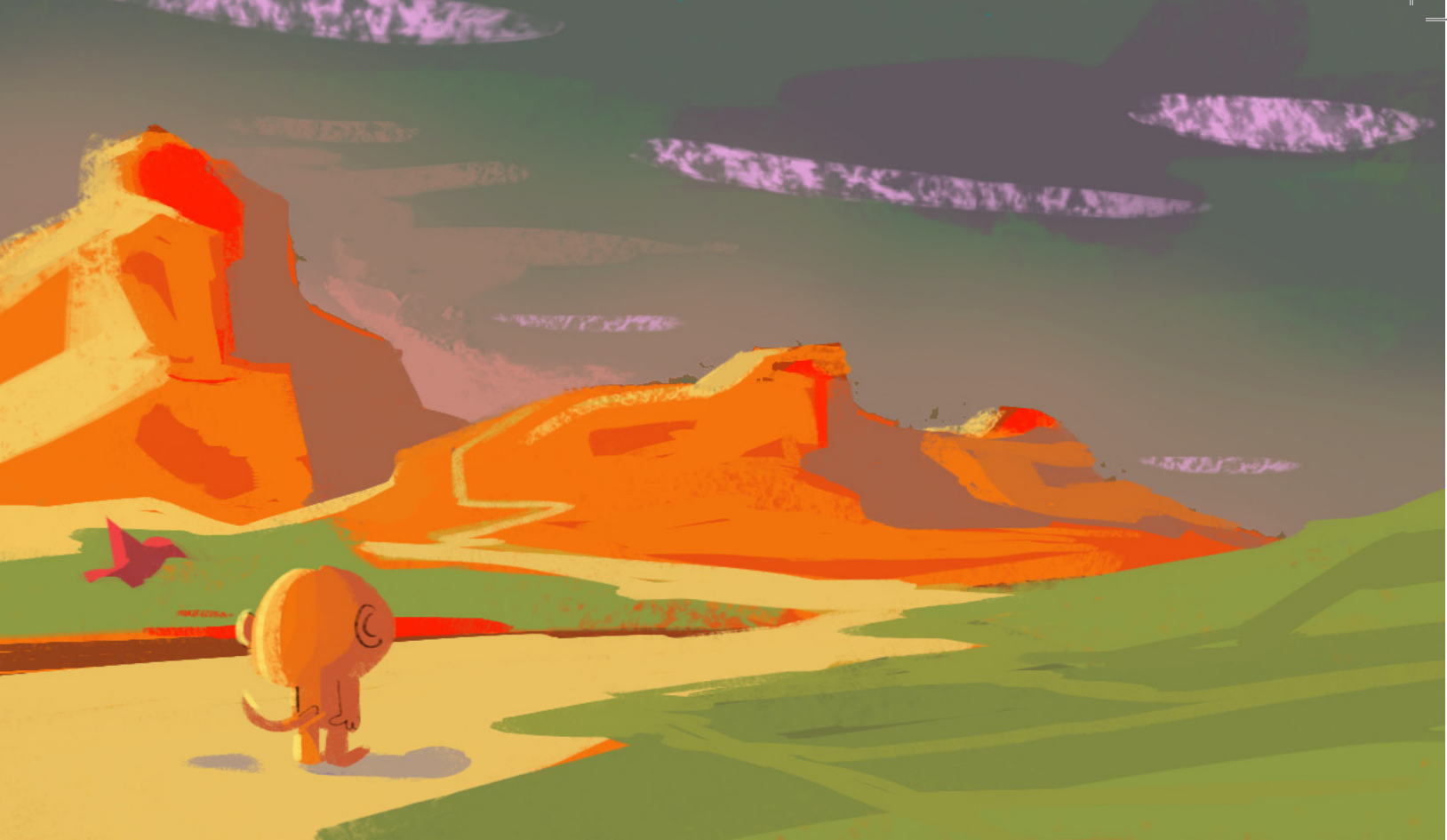
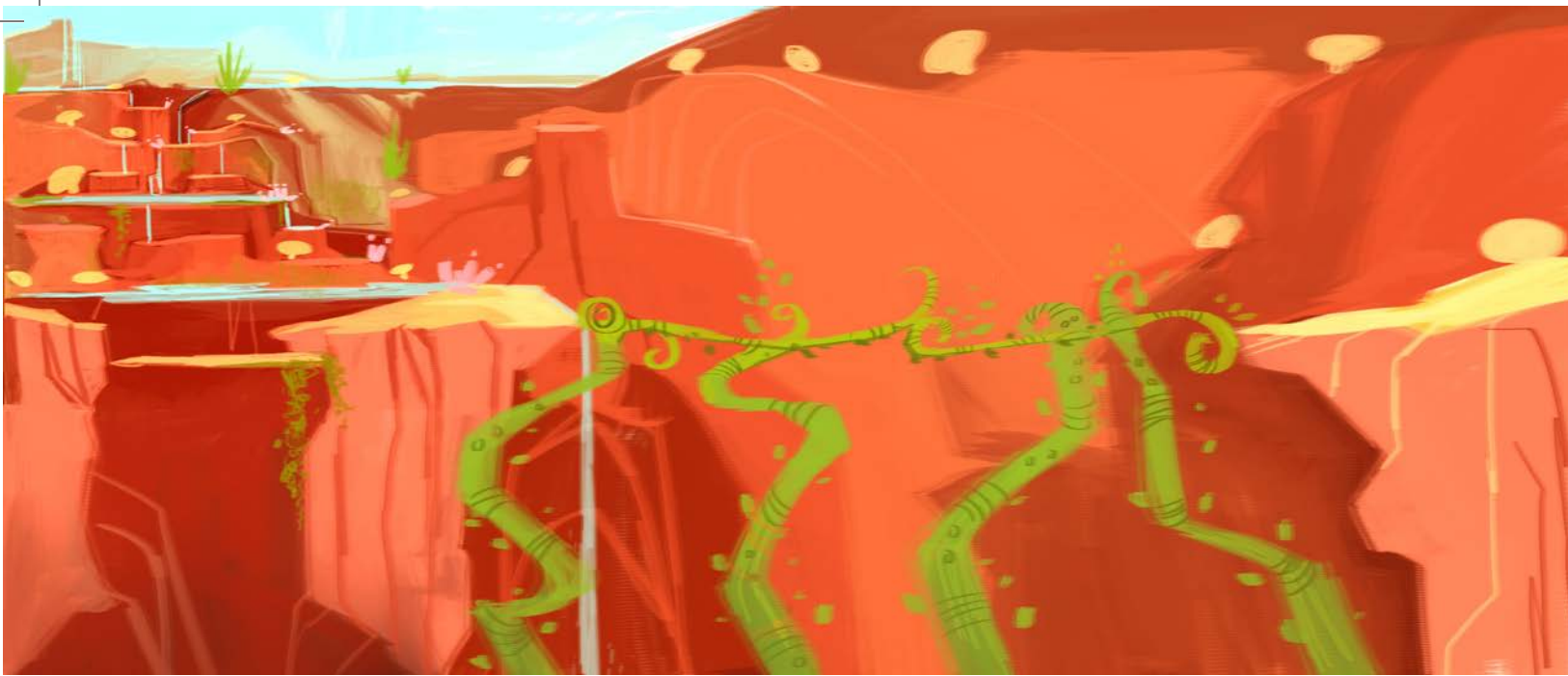


Concept Art for the 'Pubby World'

Environment Explorations

The following are the explorations for the look and feel for the environment assets, like the flora and fauna of the forest they are embarking on. These artworks showcase various designs for the stages throughout the game.



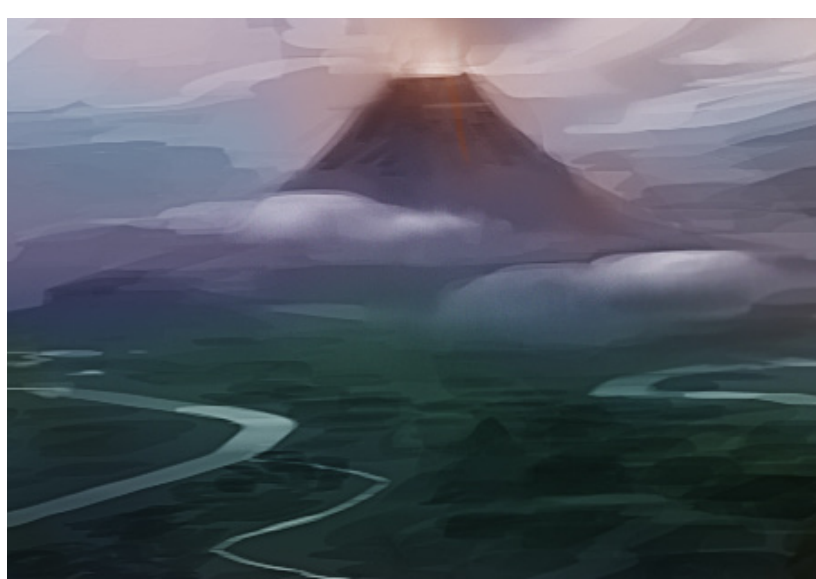
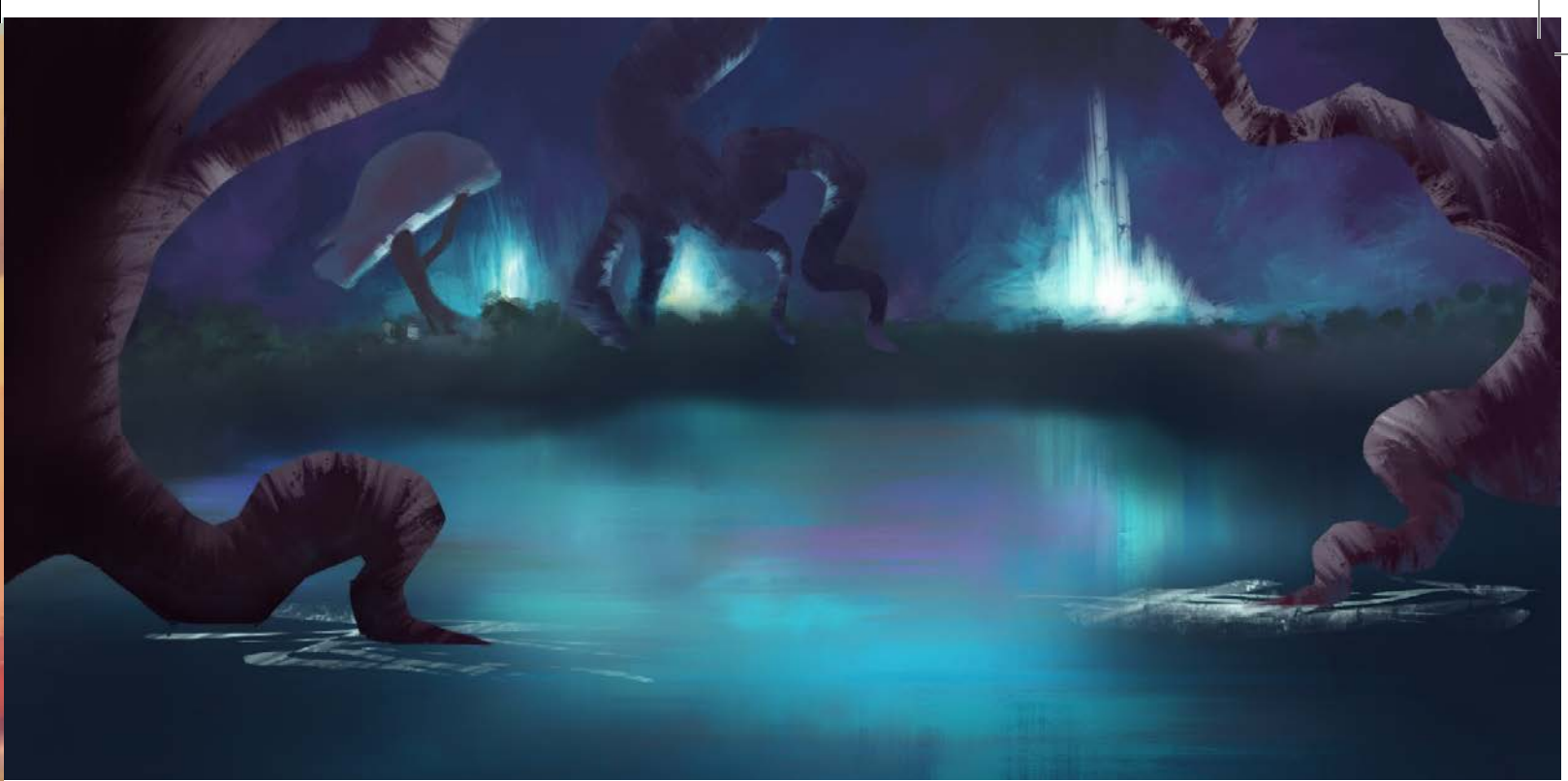


Catapult Concept sketches

Concept Art for the 'Pubby World'

Environment Explorations

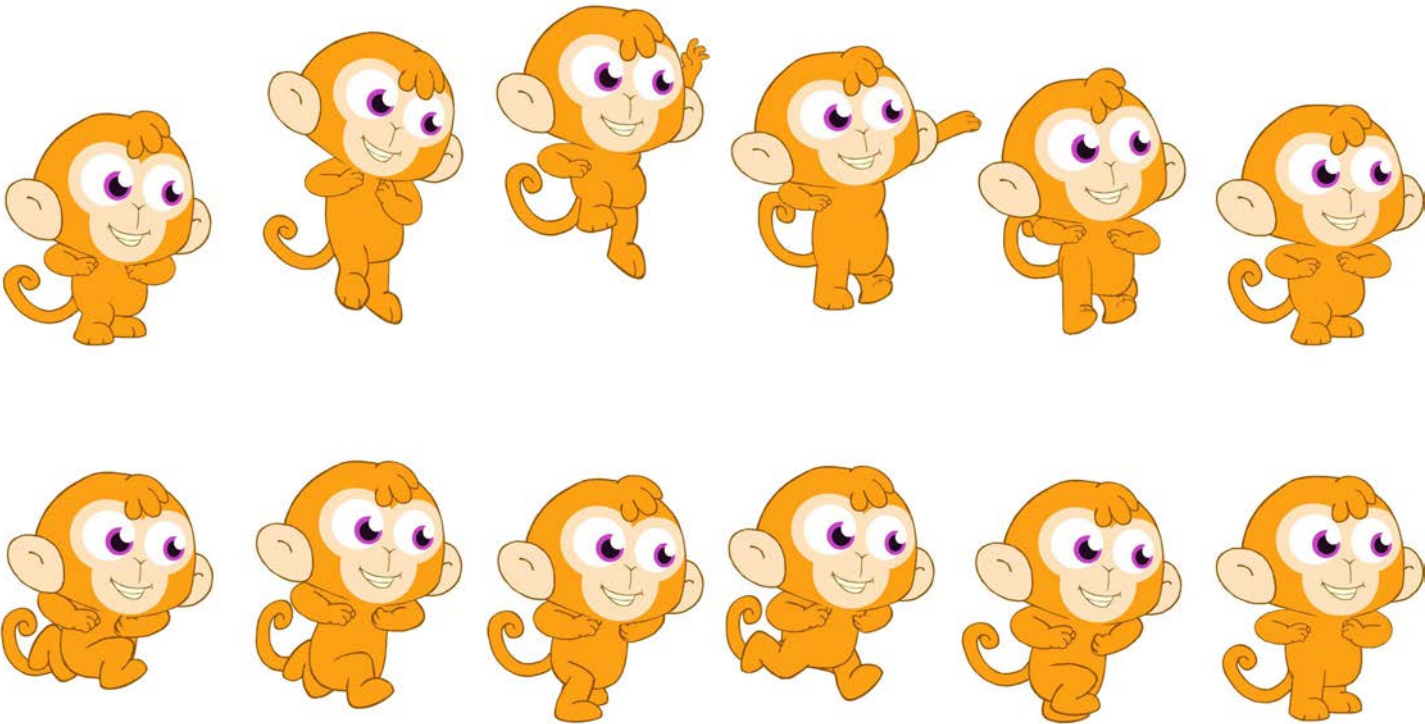




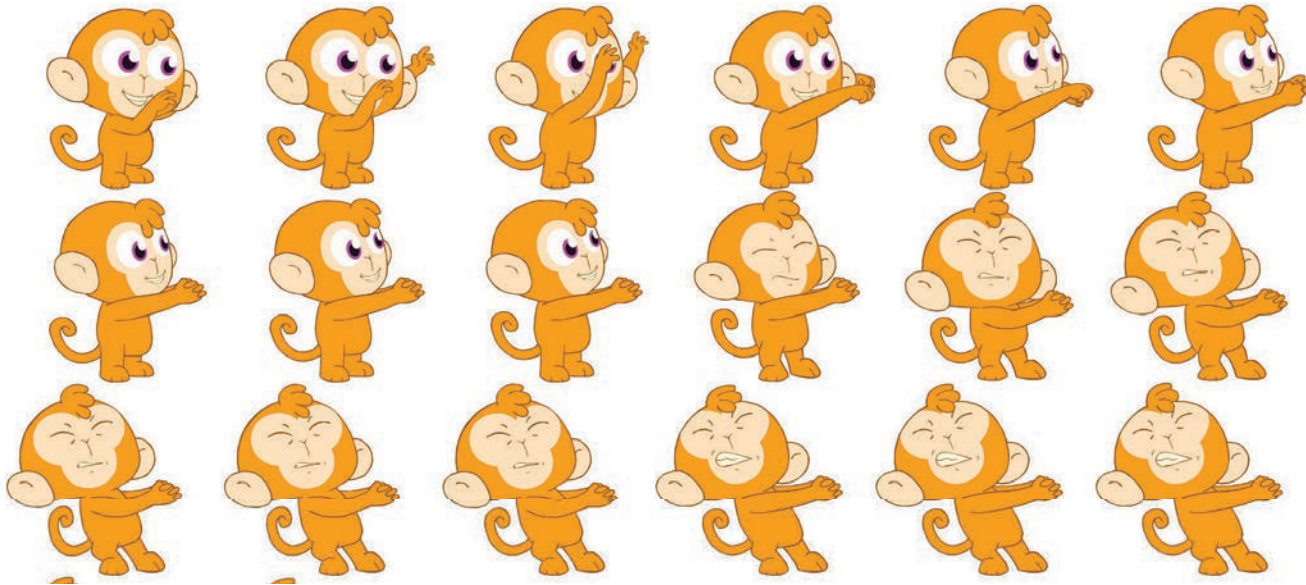
Animation and Art assets for Game levels

Animation Assets - sprite sheets

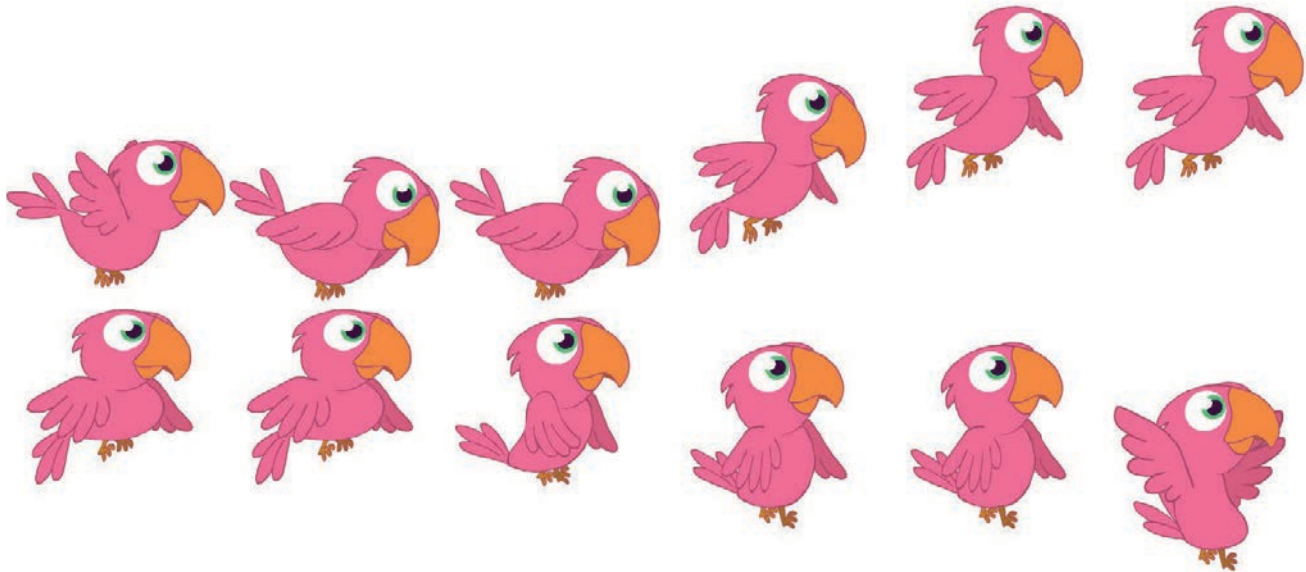
The following are some of the many animation assets created for the different levels of the game. The animations are put together frame by frame in one sheet to determine the character's actions separately - which are known as sprite sheets. Animators studied the character movements and brought life to Polu and Mindy for the playable game.



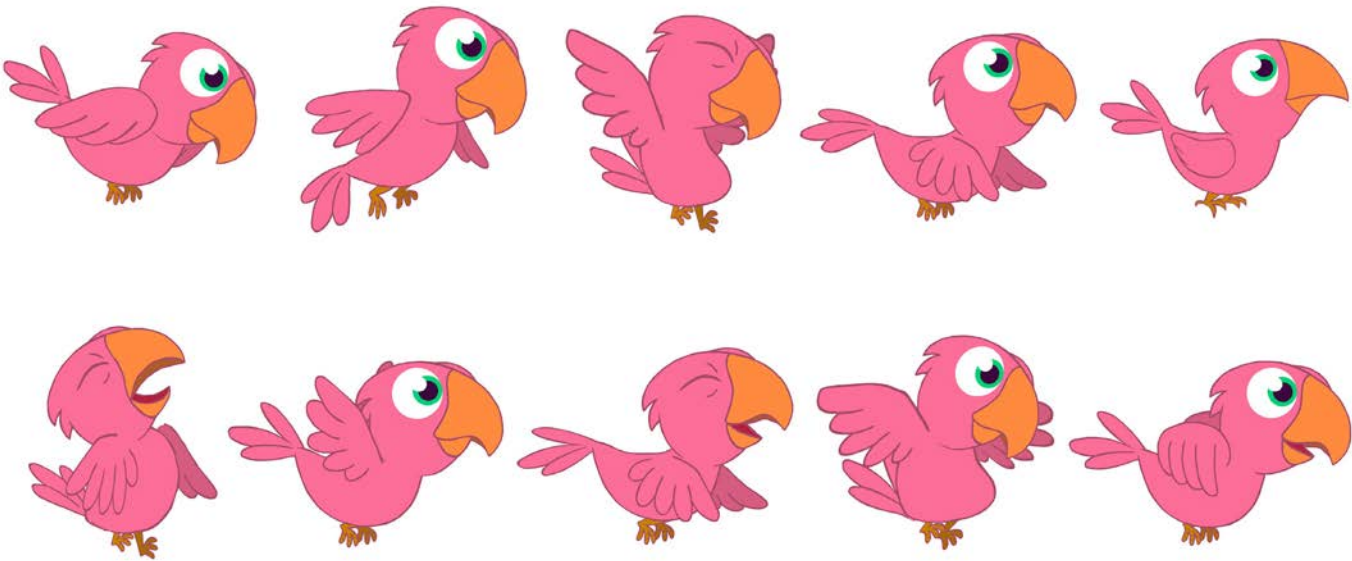
Polu Jumping Sprite Sheet



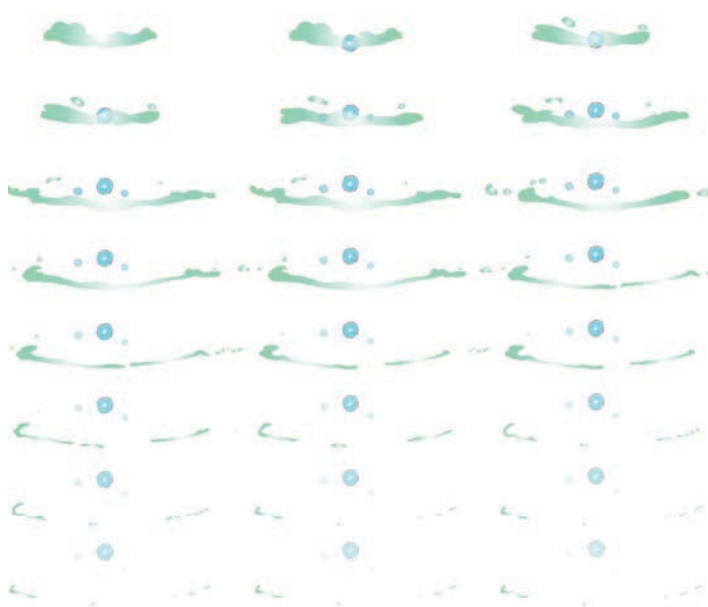
Polu pulling catapult Sprite Sheet



Mindy Jump and Land Sprite Sheet



Mindy Flying Sprite Sheet



Bubble FX Sprite Sheet



Mango Floating Sprite Sheet

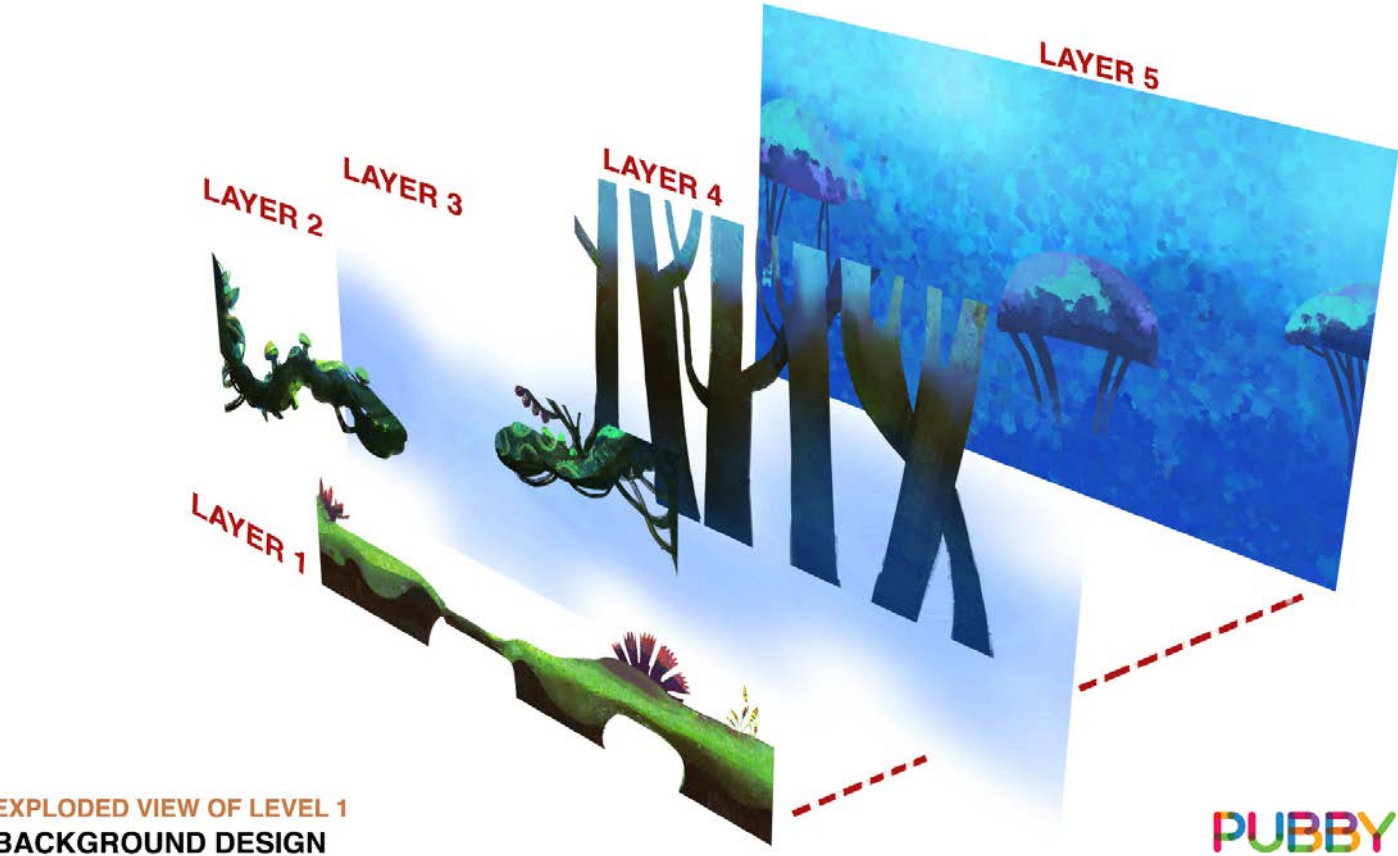
PUBBY WORLD MAP

The pubby world map acts as a blue print for both the players and the designers about the stages and levels in the game. The story is both character and environment driven. As the characters explore the map, the journey becomes more adventurous and exciting.



Background Designs

A unique style was artistically conceived to create the backgrounds for each level. The designs were carefully painted keeping in mind the vibrant colour palette and the mystical feel to the forest and other landscapes. These environments are layered desings which are later placed in a 2.5 Dimensional space, in order to bring a parallax and spaccial feel across the entire game.

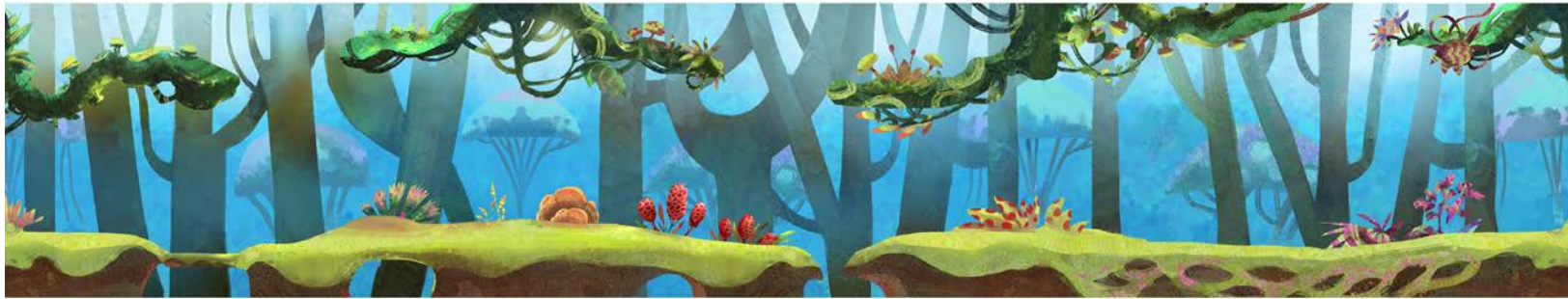


EXPLODED VIEW OF LEVEL 1
BACKGROUND DESIGN

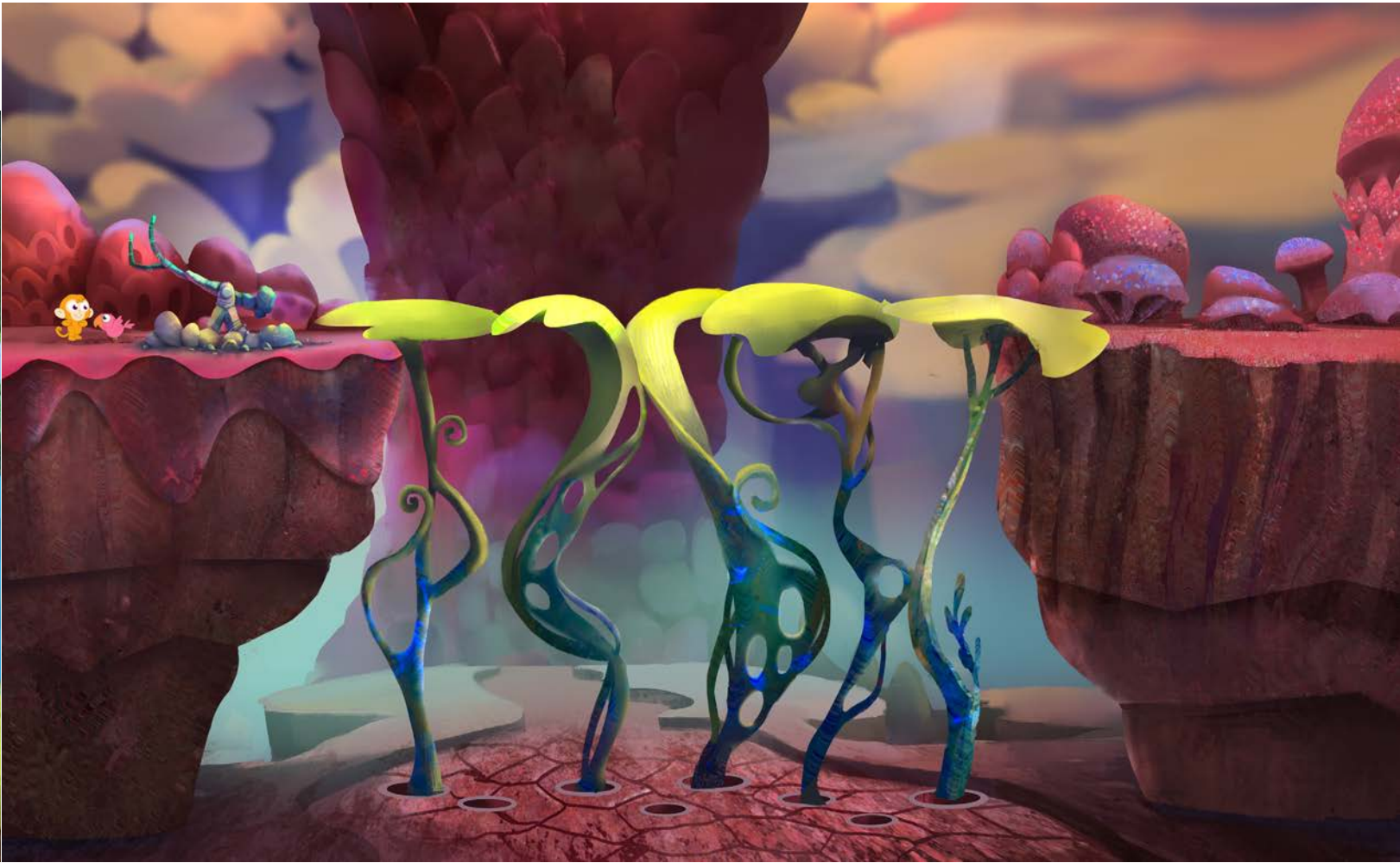
NIGHT SIDE SCROLL FOREST - PUBBY GAME LEVEL 1



DAY SIDE SCROLL FOREST - PUBBY GAME LEVEL 1

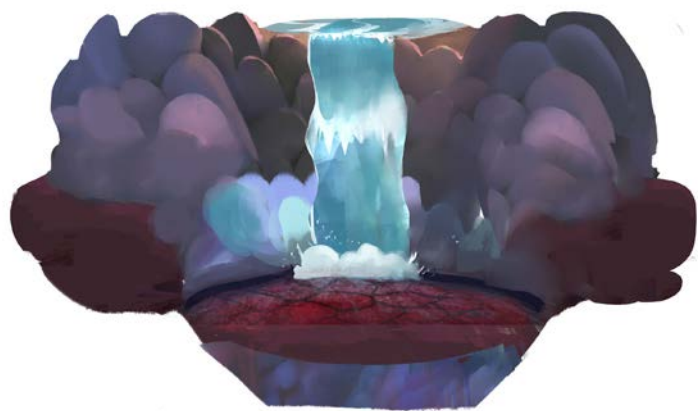


PUBBY GLOVE PATTERN ASSETS





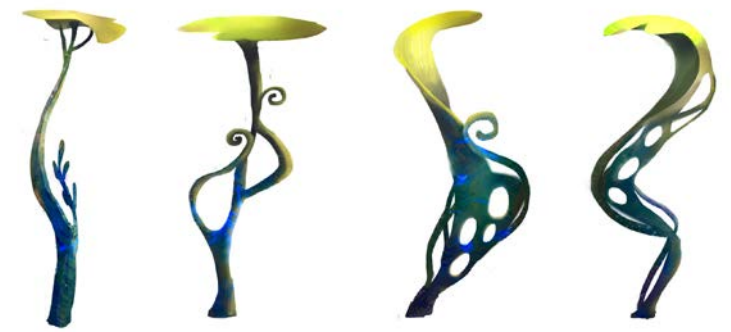
Asset Design - CATAPULT



Asset Design - WATERFALL SECTION



Asset Design - CLIFF + FLORA



Asset Design - SPROUTED PLANTS

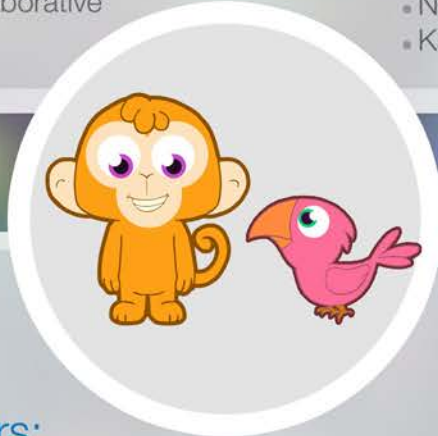
PUBBY

Future Directions:

- Applications for children with special needs and the elderly.
- Interactive remote collaborative learning games.

Collaborators:

- Nehru Planetarium, Mumbai
- Comet Media Foundation, Mumbai
- Navnirmiti, Mumbai
- Kala Ghoda Festival, Mumbai



Team Members:

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