

## **Graduation Project 2021**

# SUBSCRIPTION BOXES FOR 3-6 YEAR OLDS

## Sponsor Grasper Global Pvt. Ltd. - Skillmatics

Student Durva Gaikwad Industrial Design (Product Design)

Industry Guide Faculty Guide Ms.Prapti Verma Prof. Hari Kara **Graduation Project 2021** 

# SUBSCRIPTION BOXES FOR 3-6 YEAR OLDS

Sponsor Grasper Global Pvt. Ltd. - Skillmatics

> Student Durva Gaikwad Industrial Design (Product Design)

Industry Guide Faculty Guide Ms.Prapti Verma Prof. Hari Kara The Graduation Project Evaluation Panel recommends **DURVA GAIKWAD** 

to be awarded the Bachelor's/ Master's Degree of the MIT ADT University, Pune IN INDUSTRIAL DESIGN (PRODUCT DESIGN) herewith, for the project titled "SUBSCRIPTION BOXES FOR 3-6 YEAR OLDS"

**MEMBERS**:



on fulfilling the further requirements by \*

(\*Subsequent remarks regarding fulfilling the requirements :)

GRADUATION PROJECT 2021 Programme : B.Des

Chairperson of the Jury

Jury conducted in online mode

## **ACKNOWLEDGEMENT**

I would like to express my special thanks of gratitude to Skillmatics who gave me the opportunity to do this project and virtually spend 5 months with the team. It has truly been an exciting journey. The amount of experience and knowledge I have gained in the last 5 months has shaped me as a better designer, better learner and a better person.

This would not have been possible without the help of some extra-ordinary people. Thanks to Hari Sir for his valuable inputs and keeping a check on me and my project constantly. Another big thanks to Prapti for being the coolest boss ever and handling me for months, without you this journey wouldn't have been so smooth.

Secondly, I would also like to thank my parents and friends who helped me being sane throughout this pandemic and work from home experience.

# TABLE OF CONTENTS



ABOUT THE SPONSOR

Who we are The Founder Brand Study What they create How they create Subscription Team

06



ABOUT THE PROJECT

About Project Initial Brief Timeline

15



RESEARCH & ANALYSIS

About Subscription User & context study Market research Takeaways Refined Brief

19



SKILLMATICS SUBSCRIPTION PLAN

About Skillmatics-Subscription Design process Product Development Deliverables

34



FINAL SOLUTIONS

Ideation Detailing Production Files Prototyping Packaging Parent Guide Plan of Action Summing up



# ABOUT THE SPONSOR



Who we are The Founder Brand Study What they create How they create Subscription Team



## WHO THEY ARE

Skillmatics was founded with a clear goal – To develop innovative products and games for children which aims to build core skills and reinforce key learning concepts in young children aged three to nine – all through the joy of play.

While working towards building a new age business model to disrupt a \$100 billion global industry, we at Skillmatics have built a vertically integrated supply chain with inhouse manufacturing to rapidly iterate, launch and scale new products. Additionally, we collaborate with product design experts in the US, integrating best-in-class design expertise in learning aids, STEM products and educational games with India's competitive manufacturing costs and content creation expertise. We currently sell globally across 15+ countries through our own website, various e-commerce marketplaces and through an international network of 3000+ retail stores, with a primary focus on the North American market. So far, Skillmatics has enriched the learning experience for over 3 million children across 25+ countries worldwide!

On a lighter note, we design innovative learning resources, educational games and STEM products ranging from math and language to science and logic that build core skills - all through the joy of systematic play! At Skillmatics, we want to be a part of the incredible journey of parenthood by helping kids build strong foundational skills to ensure a lifetime of success. We are deeply committed to our vision of bringing happiness to millions of children while helping them to realise their full potential – one Skillmatics product at a time!

## **THE FOUNDER**



#### DHVANIL SHETH, Founder

An All India CA Ranker, an Ex-Management Consultant at Boston Consulting Group and a part of the **Forbes 30 under 30 list**, Dhvanil is basically a business tycoon in the making. His vision is to make his Indian brand a global household name.

## THE SKILLMATICS JOURNEY

Dhvanil launched Skillmatics in 2016 after catching his three-and-a-half-year-old nephew attempting to swipe an early learning book. At the time, he was looking for a way to break away from his job as a management consultant and develop the retail space in his native India. Seeing his nephew's actions, he believed he'd found a real problem to solve.

"I was always very clear that I would eventually start my own business; that moment really brought it home" he said.

In the months that followed, Dhvanil quickly set to work consulting parents in Mumbai to find out if they had the same concerns. When it turned out they did, he quit his job at Boston Consulting Group and invested the \$50,000 he had saved to come up with a range of early-learning games designed to shift children away from apps and back to physical games. It is his dream to build an 'ecosystem of products' and help reinvent what he describes as an outdated education system.

"Traditionally, there has been a specific focus on building subject knowledge but, in the future, I think it's going to be more about developing a core set of skills."

# **BRAND STUDY**

Skillmatics is a new age brand that develops innovative educational products and games designed to help children build core skills, ranging from math and language to science and logic, through systematic play.



Revolutionize the way children learn by creating unique, highly engaging games. We aim to develop products that make the process of learning an experience that children look forward to.

We want to bring back the time when children had the freedom to learn by doing, by exploring, by using their imagination and fuelling their curiosity.



**30,00,000+** Products Sold since 2017

> 10,000+ Retail Stores

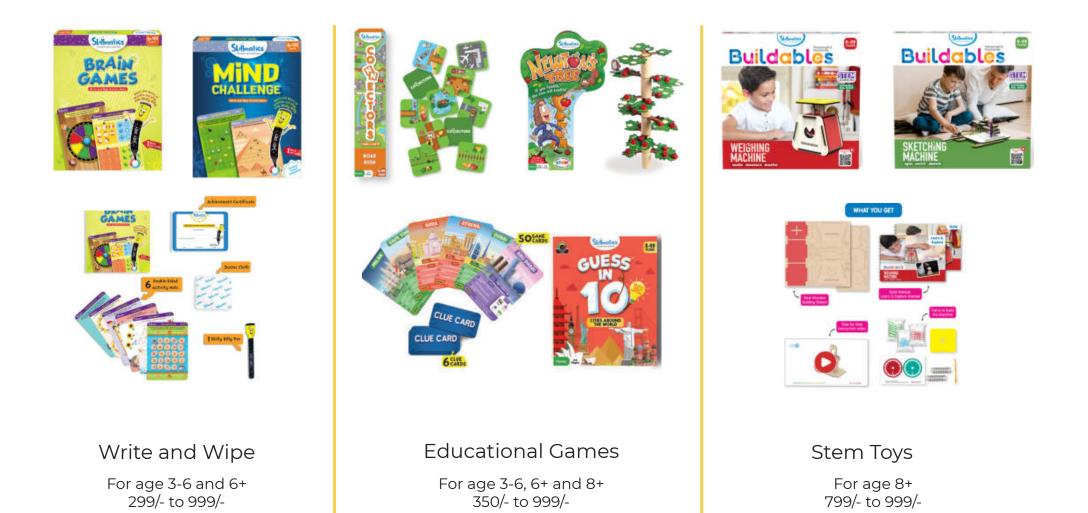
200+ Educational Institutions



We are deeply committed to our vision of developing products, that bring joy to children while helping them realize their full potential – one Skillmatics product at a time!

## WHAT THEY CREATE

With the range of products Skillmatics hope to encourage and stimulate young minds.



## HOW THEY CREATE

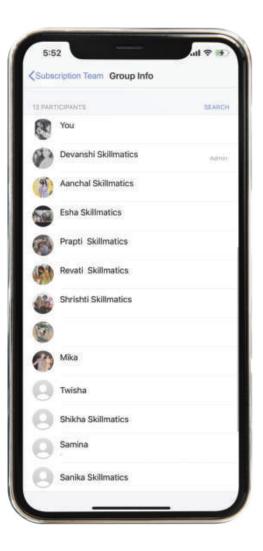
A team of educationalists and design specialists ensure that all the products are age appropriate, highly engaging and make the process of learning an enjoyable one.

Skillmatics aims to produce only recyclable and non-plastic products. All the products are made from paperboard and recently have started designing in wood as well.

Being paper based products they are quite lightweight and doesn't take much of space in packaging, additionally it makes kids to handle them easily as well. All products are thoughtfully packed in carton boxes making them compact and easy to stack over one another during transportation. Safe transportation of products is important since Skillmatics has maximum sale in the US and the countries around while they in house manufacture everything in India.

The cost of skillmatics games varies depending upon the product yet is quite affordable considering the quality. The games start from 299/- and go upto maximum 999/- which is way lesser compared to other brands.

# THE SUBSCRIPTION TEAM



The Subscription Team was a complete package of amazing designers and educationalists which came together to form a well balanced team.

#### Devanshi Kejriwal, Co-Founder

Devanshi is the kind of boss that keeps everything and everyone in the check, quick at her decisions and still hears out to every member of the team.

#### Prapti Verma, Project Manager

Prapti is an experienced toy design professional with a perfect blend of creativity and practicality. Her dedication towards work and skills of managing everything while supporting everyone was admirable.

#### The Team

The rest of the team was a combination of educationalists and child-development experts who would decide on the age approriate content that is to be taught through the products. Graphics and Product Designers who would bring the ideas to life by consistently working together to produce the best possible.

Pandemic didn't allow a group picture\*

# ABOUT THE PROJECT



About Subscription Project Initial Brief Timeline

## **ABOUT SUBSCRIPTION PROJECT**

Skillmatics is coming up with a subscription project plan for the US market where a subscription box- a package of retail products will be sent directly to a customer on a recurring basis.

Each box will be packaged with variety of Skillmatics products including educational games and STEM products ranging from math, language, science and logic that will focus on building core tangible and intangible skills within kids in a fun way with equal break in between and reduce the hustle of ordering every product for the parents.

Subscription plan aims at offering consumer an additional value and a unique experience through every product contained in each box.

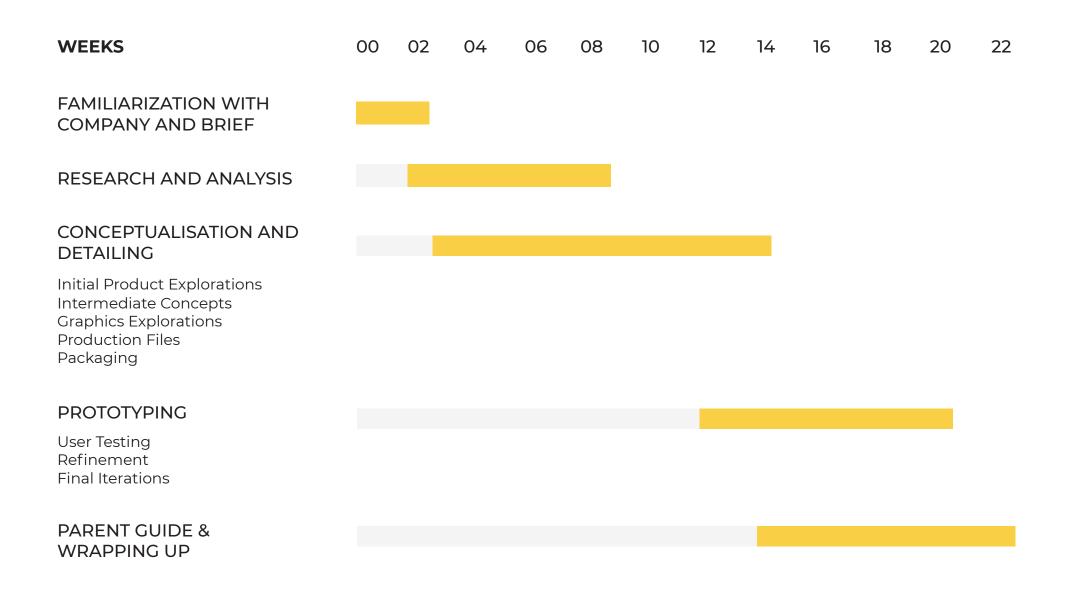
## **INITIAL BRIEF**

The overall increase in demand of a subscription plan has led Skillmatics come up with its own Subscription boxes for US market. A combination of educational game products, story books, write and wipe mats and existing products will be included in the boxes.

The brief was to design products for Subscription Box services based on given curriculum guidelines.

It was important to keep the products simple which the child would adapt easily to and have a fun element in them as well.





# RESEARCH & ANALYSIS



About Subscription User and context study Market research Takeaways Refined Brief

# **ABOUT SUBSCRIPTION**

# WHAT IS A SUBSCRIPTION MODEL?

The subscription business model is a business model in which a customer must pay a recurring price at regular intervals for access to a product. The model was pioneered by publishers of books and periodicals in the 17th century and is now used by many businesses and websites.

Companies not offering SaaS (software as a service), a subscription offering usually involves a monthly shipment of goods such as a subscription box.

## WHY SUBSCRIPTION ?

The goal of a subscription offering is to increase customer retention and lower customer acquisition cost. One of the most challenging parts of running any business is getting monthly recurring revenue (MRR) which subscription models help with.

90% OF THE YOUNGER DEMOGRAPHICS ACTIVELY USE SUBSCRIPTION SERVICES

### **KIDS SUBSCRIPTION BOXES**

Kids subscription boxes are spread across categories of Apparel, Food, Toys by Stage, STEM, Montessori Method centric, Art and Craft + Vehicles, children's books,geography and cultural etc.

### EDUCATIONAL SUBSCRIPTION BOXES

The fun and engaging games and kits are selected by educators and parenting experts depending on the curriculum required for that specific age group.

The cost of toy subscription services varies depending on the size of the box, number of items, and the quality of the toys. The services typically start in the range of \$20 to \$90 per box.

Typically, there are two types of educational subscription services:

- Activity based: Materials and directions are provided for kid-friendly projects to expand their knowledge and give an hands on experience in extra curricular activities. Here each box brings different activities with no relation or continuation with the previous box.
- Stage based: Some boxes include games and activities that helps the childlearn academic or non academic curriculum in a fun way with an incresing level of difficulty as the child grows up i.e. it takes learning from stage 1 to stage 2.

## ANALYTICAL DATA

Skillmatics follows a **data-driven approach** in order to consider all possibilities in collaboration with the Marketing Team. This involves collecting statistics of search terms, videos, reviews, ratings, best sellers, blogs, viewers from International websites. This helps in extracting the current trends and user demand which in turn gives clarity in terms of what to design and for what age group.

Additionally, the products were backed with data points, pros and cons, competing products, and more which gives a clear view of all the possibilities and directions we could explore before finalising the range.

## **USER RE**SEARCH

## TARGET USER



#### Children

Children are the **consumers** or the primary users but not the buyers of the product.



#### Parents

The parents are the **customers** of the product who decide what their child will play with



#### Relatives/ Friends

Often grandparents or relatives gift games/ toys to children making them the **customers** of our product.

## **CONTEXT SCENARIO**



Home



Pre-School/Day cares

From the analyzed data, it was observed that the **largest consumers belong in the age group of 0 to 6.** Designing educational games for 0 to 3 years old gets a lot critical since they are too young for those and there is lot of safety that needs to be taken care off.

Thus, the target age group finalised for the subscription service was 3 to 6 years old.

#### Children

- Consumers
- Not the buyers themselves but the end users
- Get bored with toys quickly
- Need something new constantly
- Too young to understand games on their own in the first go

#### Parents

- Customers
- Young parents
- Need to constantly search for new & engaging toys but don't have much time to spend
- Wants to keep their expenses in budget, prefer to have multiple times play-able games.
- Often help children to play along
- Want to reduce kid's screen time
- Looking for safe products



### **USER PERSONAS**



Sara Gender: Female Age: 3.2 years

Gender: Male Age: 4.5 years

Noah



Mia Gender:Female Age: 5.6



Sara is a silent and curious child. She enjoys her company and loves to play with her toys and learn through them. She is starting to understand differences between emotions and explores with her imagination.

Since she is easily fascinated with the things and is creative her parents are looking for:-

An engaging educational games that will constantly teach new things, improve motor skills and surprise her with exciting game play. Noah is a playful child who enjoys outdoor more than indoor and doesn't wants to sit at a place for long. He has lot of friends and shows increased independence. Gets demanding at times.

As Noah more outgoing and doesn't enjoy learning through books his parents are looking for:-

Educational activities that will have similar curriculum as school but will help him learn while playing and be exciting enough for him to sit at one place. Mia is an a enthusiatic and a sincere child who takes her studies seriously and doesn't like to miss out on anything.

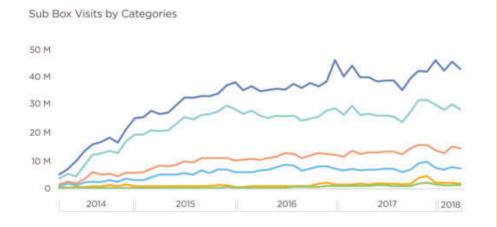
She enjoys dramatic, imaginative plays with her friends where she creates her own stories.

Due to pandemic, her parents are looking for:-

a subscription plan for educational games that will make sure Mia doesn't miss out on her learning and don't get bored playing alone at home.

# **MARKET RESEARCH**

Mature Categories like beauty and food have seen a decline or stagnancy in growth. Niche categories like Kids & Apparel have garnered interest.



#### 1 year change

- Food +8%Beauty -1%
- Apparel +20%
- Lifestyle +12%
- Kids +24%
- Pets +12%

In the past five years, the **subscription box market** has grown **more than 100%** year-on-year, and experts have further analysed that the growth of the industry is unstoppable in the near future.

In fact, in 2018, there were over 7,000 subscription box companies present worldwide with global subscription commerce accounting for **18% of the market**.

The market for subscription boxes for toys is on the rise. However, this niche has a certain room for improvement. Especially considering the amount of competition present and the sensitivity of the industry as it's related to children.

There are lot of brands providing educational toy subscription services targeting different areas of play at various different price ranges.

Amazon has introduced Prime Box for books & STEM, which gives subscription boxes a chance of featuring on Amazon as well as sell via D2C.

## USA'S ROLE IN TOYS INDUSTRY

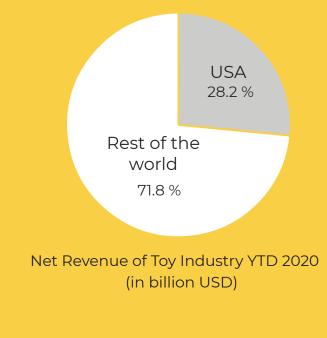
Skillmatics has the most sale in America and now is planning to launch Subscription Services there too.

US market is the largest importer of toys, dolls and sports equipments.

In 2020, U.S. retail sales of toys in the United States amounted to 25.14 billion USD. The toys and games market consists of total revenues generated through the sale of action figures, dolls, games and puzzles, plush toys, vehicles, and other toys.

The total toy industry in the U.S. was valued at 32.61 billion U.S. dollars in 2020. Total U.S. sales increased 27% in the first four months of 2021.

North America is set to Lead the Global Kids Activity Box Market in the coming years.



• AN AVERAGE US CHILD RECEIVES \$6500 WORTH OF TOYS IN A LIFETIME.

U.S. Toy Industry Experienced 19% growth in the first three quarters of 2020 influenced by Pandemic and early school closures.

#### Top Purchases in US

Family Board Games Adult Puzzles Card Games Skates/ Scooters Pools

#### Top Categories of Growth in 2020



Puzzles & Games 55% growth



Outdoor & Sports 22% growth



Building Sets 20% growth



Art & Craft 13% growth



### **Educational Games Competitors**

Brand	V M T & A	green kid orafts	CRAFT BOX	O KiwiCo	GLOBAL Citizens	Veggie Buds Club	MF C RC My First Reading Club	Therapiay
Category	Stage Based	STEM/ STEAM	Art & craft	STEM	Exploration	Veggie inform- ation	Reading	For kids with development delays
Age segments	04	2-5, 5-10, 10+	39	0-8, 9-13, 13+	410	36	0-2, 3-5, 6-8, 9-10, 10-12	kids, teens/adults
Cost per box	\$36.00	\$120	\$60	\$36	\$40	\$26.99	\$36	\$40.95
Duration	Quarterly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly	Monthly
USP	Stage based play, organic cotton,baby safe	Green+ sustainable	Theme based craft activities for a pair of 2 kids(or parent and child)	Innovative range, strong connect	Personalisation and increasing curiosity+ understanding of other cultures	Make veggies fun for kids	board books for infant, additional activity book+ gift for mom	Niche audience, therapeutic toys



Stage Based Subscription Competitors



## **TAKEAW**AYS

#### Age guidelines

To have age guidelines stated clearly and followed while designing a product and making sure the learning is not too much for the child of that age.

#### Subscription Plan

The subscription services and boxes need to be planned and formatted well considering the contents and combination of products in each box, providing a wholesome experience and yet making it stage based and keeping in mind the gap between the two boxes.

#### Parent Guide

Since our largest customers are the parents, its essential to make them feel involved in the process of their child's development and assure them this is a good way to go about it. A manual could be provided to help them guide their children.

#### Endless game play

The products designed shouldn't have a limited scope of playing rather the child should keep playing until the next box arrives. The newer ways of playing the same product could be suggested.

#### STEAM Learning

Our product should truly bring out the educational aspect of the toy as the kid plays with over and over again. The child will learn other skills like observation, fine motor skills etc as well and gain immense knowledge all through play!

#### Sustainability

All the products will be made from non-plastic sustainable materials.

## **REDEFINED BRIEF**

The final brief was to design multiple products for Subscription box services based on given curriculum guidelines for 3-6 year olds.

The products could potentially be simple, engaging, fun, must retain the educational value and could produce endless play opportunity.

## DESIGN REQUIREMENTS

1. The product is to be designed **based on the content** guidelines and syllabus by the content team, keeping it age appropriate

2. There should be scope for **endless play** which encourages the kid to play multiple times

3. A **parent guide** to be provided to guide parents through the learning journey and suggesting additional ways of playing the same game.

4. At least **4-5 key skills** must be taught through each game.

5. The child should learn while playing and having fun.

6. Since the age group is 3-6 years the **functionality and assembly must be simple** so that parents don't waste lot of time understanding and doing them for their kid.

7. Recyclable material only.

### POSITIONING

- 1. Launch as Skillmatics' first Subsription Plan
- 2. Price Range **\$50-\$60 per box**
- 3. Focus on Online sales especially Amazon
- 4. Age group 3 to 6 year olds
- 5. New box every 2 months

# SKILLMATICS SUBSCRIPTION PLAN



About Skillmatics Subscription Design process Product Development Deliverables



# Introduction to Skillmatics Subscription Plan

The Skillmatics Subscription is a stage-based program that enables you to give your child a research-backed, age-appropriate, engaging and enjoyable learn through play experience.

These Boxes are cautiously designed to educate children according to their academic curriculum as well as build some important skills amongst them at a particular age. All while they play!

#### Category: Stage Based Model

The each box will have an unique experience and at the same time will be connected or carry a story throughout all the boxes.

Age segments: 3--4, 4--5, 5--6

Duration: Bi-Monthly

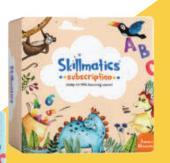
Contents: 4 Write & Wipe mats 3 Products 1 Storybook 1 Parent Guide

Tentative average cost of each box: \$50-\$60

This is **Skillmatics' first subscription project** which is getting ready to launch in the **holiday season of 2021 in the United States** largely through the e-commerce platform of **Amazon**.

With The Skillmatics Subscription, the child will progressively reach the successive stages of the development benchmarks with each Play Kit, nurturing different areas of knowledge.

Skillmatics



Move up the Skillmatics Learning Curve, 1 box at a time!

Skillmatics

6

Skillmatics

Skillmatics





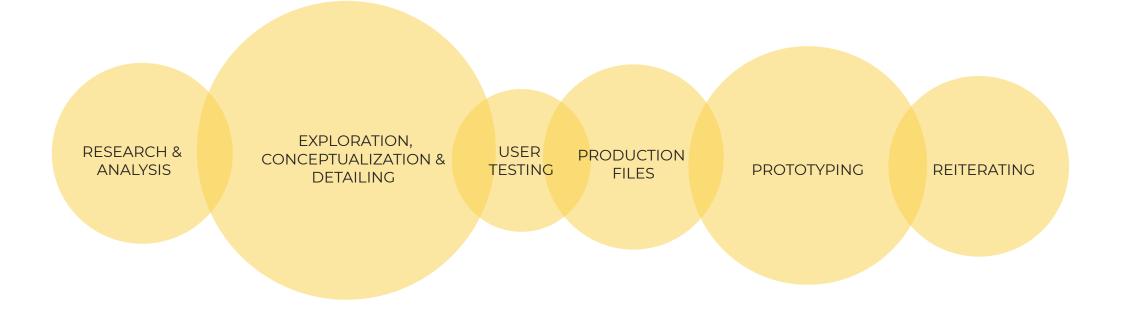
## **SKILLMATICS FAMILY**

These are the characters of Subscription boxes designed by the team which will be taking a story forward through all the subscription boxes maintaining the excitement and engagement throughout. The story books in each box are based on them and they will also be seen in few of the products designed ahead.

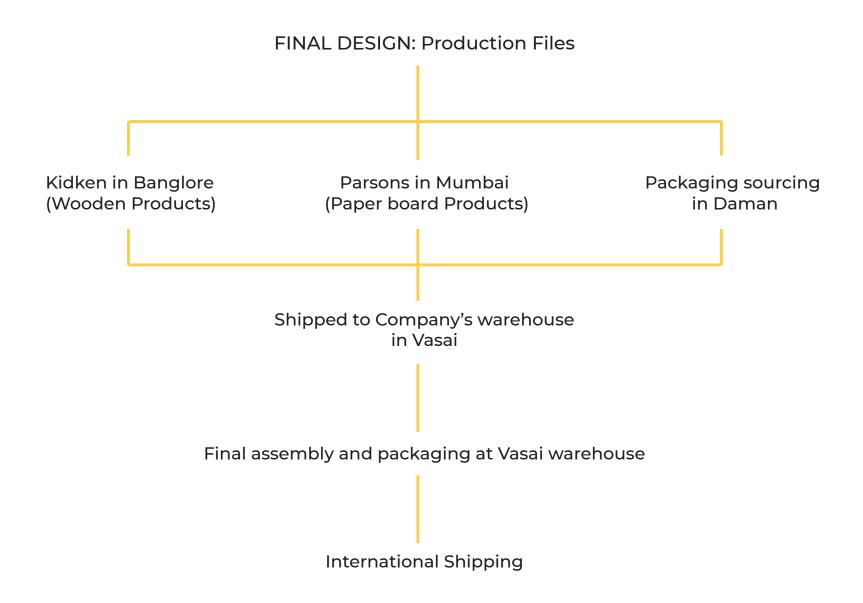








# **PRODUCT DEVELOPMENT**



# **DELIVERABLES**

**CAD Model** - A detailed 3D model of the product to show the working, look and acquire correct drawings of the product.

**CAD Renders** - Variations of renders for reference, parent guides, Instruction Videos and Marketing.

**Manufacturing Files** - .eps files for Kidken (wood vendor) and .ai files for Parsons (paperboard vendor) with exact dimensions, graphics and other details required for manufacturing

**Reference Files** - .pdf files for vendors to understand what the entire product is and how it works

**Packaging Files** - The final graphics, symbols and details on the box template (KLD file) to be sent to packaging vendors

**Product Samples** - A manufactured, tried and iterated sample of the product to serve as the template for mass manufacturing

**Parent Guide** - Product renders required for explaining the components and game, for lifestyle renders etc in the guide. These renders to be done for each product from all the Subscription boxes and sent to print after finalising

# FINAL SOLUTIONS



Ideation Detailing Production Files Prototyping Packaging Parent Guide Plan of Action Summing up

# **LEARN TO COUNT**

### WITH MAMBO AND TOTO



### Age 3 y/o

### Approach

The Product was focused on helping a 3 y/o recognize and learn numbers, colours, and patterns; understand proportions and be able to interact for improvement of motor skills and to let them know more about the subscription characters.

### Limitations

MaterialBirch Ply Wood/ Beech WoodTo make it more interactive, durable and have<br/>multiple ways of playing

### Dimension < 297\*210 mm To be able to fit in a A4 pagaging box



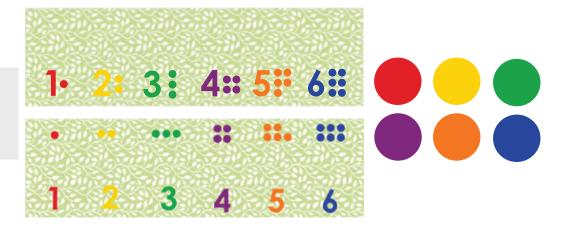




To use common bright colours (hues) and simple graphics which will be easily identified and printed on wood.



### Explorations











Initially, the content was decided for 1 to 6 numbers but due to size, packaging and costing constraints had to reduce it to 1 to 5.

**Positioning of dots** were changed to utilize both sides of the product and add more play value.

After **finalising the characters**, due to yellow background of Mambo's the yellow from tokens was removed.

Colours were finalised according to the Asian Paints colours which will be used while manufacturing.

# **FINAL PRODUCT**





### **Product Description**

Learn to Count with Mambo & Toto is an activity in which the child stacks the blocks in correspondent rod based on numbers, dots and colors mentioned on the base.

### Contents

1 Base with Rods 15 Blocks

### Learnings

This product focuses on helping children better understand One-to-One Correspondence i.e. to correctly identify numbers as symbols that indicate a quantity and Subitizing that will lead to pattern recognition.



Fine Motor Skills



Critical Thinking



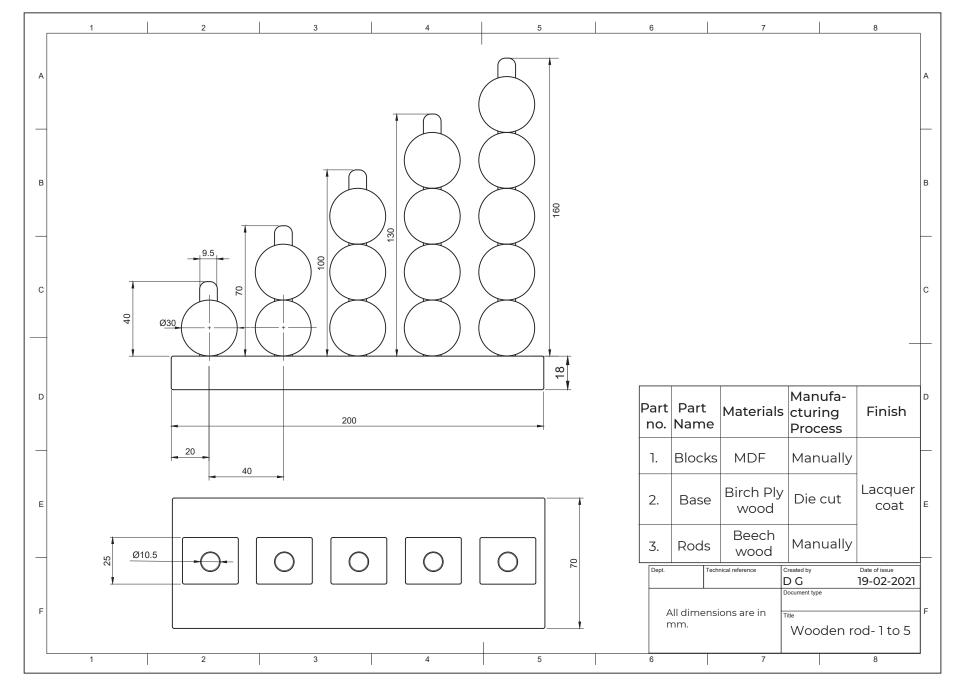
Logical Reasoning



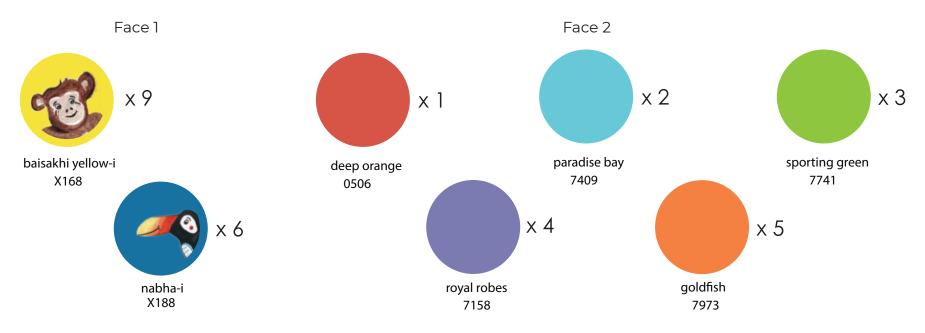
Spatial Reasoning



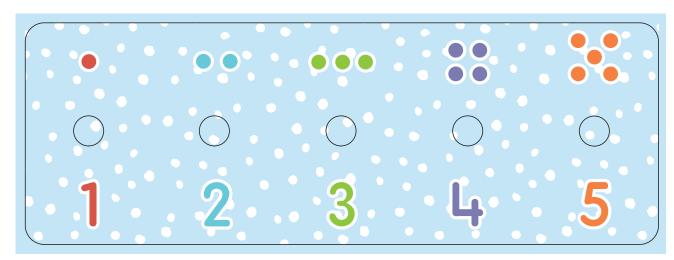
# **PRODUCTION FILES**



### Blocks



Base



BLOCKS & BASE: Digital print on a white wash

# PROTOTYPING





### Insights

- The colours and characters were mismatched.
- More brighter shade of blue required.
- Use same colours in all the products to lessen the time and cost required for sampling different shades
- Refer Asian Paints shade card for colours and make production files accordingly.

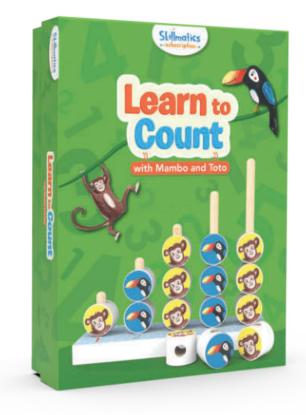


### Explorations



### **Final Packaging**

The Packaging format stayed consistent with other designs with a few subtle changes. All-in-all, it remained a clean, simple and communicative design.



# **DISCO'S BALLOONS**



### **Age** 3.4 y/o

### Approach

The Product was focused to teach Subitizing and help improve mental processing and motor skills of a child.

**Subitizing** is the ability to instantly recognize 'how many' items are in a group, without actually counting them. e.g. dice.

### Limitations

Material	<b>Birch Ply Wood/ MDF</b> To make it more interactive, durable and have multiple ways of playing
Dimension	< <b>297*210 mm</b> To be able to fit in a A4 packaging box; avoid too many parts

# MOODBOARD

### Form and CMF Moodboard



Simple Effortless Eligible Systematic

Single base with minimum parts possible. Bright colours and easily readable numbers and dots.

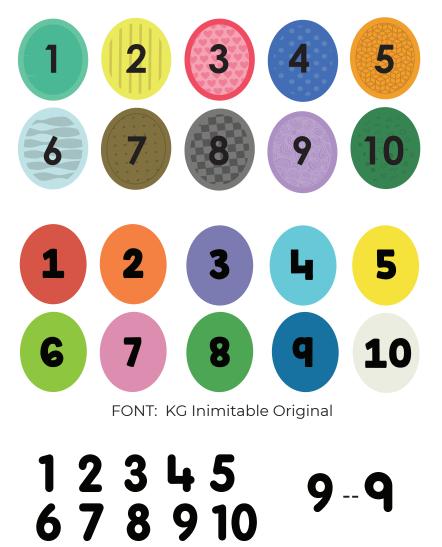




2.2 Mambo with bananas



### Block's Graphics Explorations



FONT: BPreplay

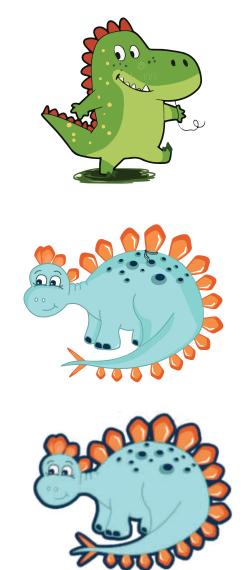
Initially the **patterns and numbers** were going to get **printed on the top** but the patterns were taken down due to lack of detail printing ability and costing on such a small surface of wood.

Instead the entire block was decided to be painted based on Asian Paints' shade card.

The **fonts** were changed to more readable ones for children. Number 9 was changed due to confusion between number 6 and 9.



**Base Graphics Explorations** 

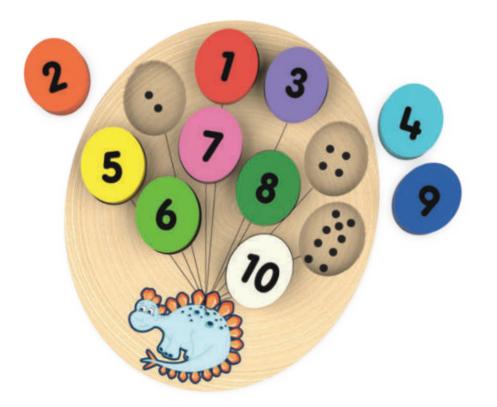


A **sample dinosaur image** was used in the first product sample to get an idea of functionality and printing quality.

The **opacity detailing** of the dino had to be removed because of printing constrain on the wood.

A **blue border** was added to make the character stand out and not let the orange merge into wood colour.

# FINAL PRODUCT



### **Product Description**

Disco's Balloons is a fun Interactive game with a base having dots which needs to be matched with the balloons that are numbered from 1 to 10.

### Contents

1 Base 10 Balloon Blocks

### Learning

This product helps to build an ability of Subitizing and teaches number matching and counting skills in a fun way.







Critical Thinking



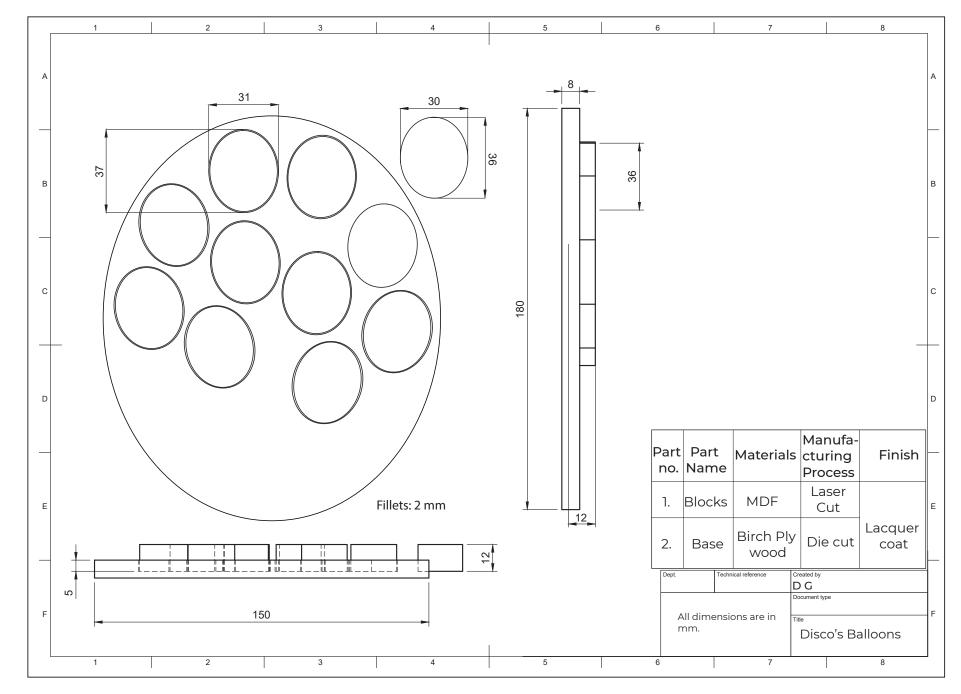
Logical Reasoning



Observation



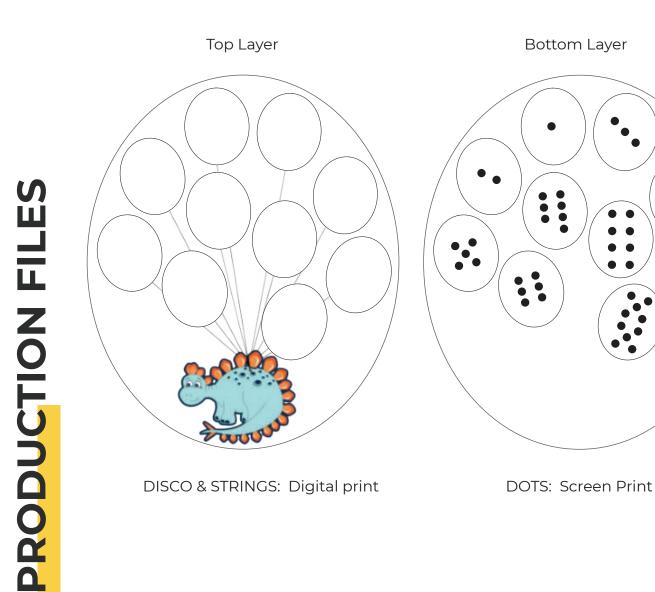
# **PRODUCTION FILES**



### Base

• •

Blocks





NUMBERS: Screen print

# PROTOTYPING

### Sample 1



### Sample 2







### Insights

### Sample 1

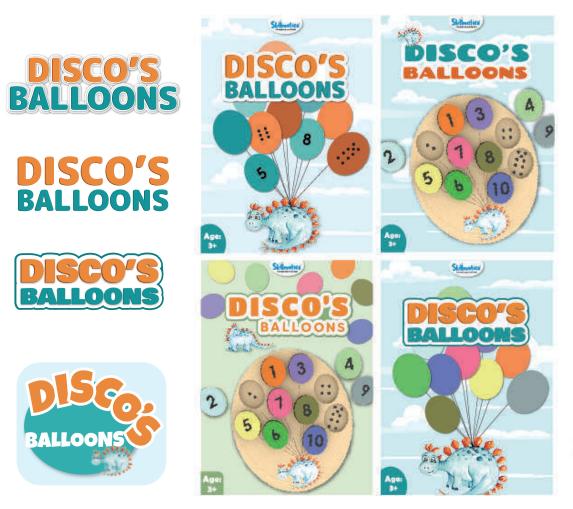
- Avoid tints and shades of colours
- Better arrangement of dots required
- Need fillets to the blocks
- Better finish

### Sample 2

- Dinosaur's graphics is too complicated to be printed on wood
- It is merging in the wooden texture, needs
- a border to make him stand out



### Explorations



### **Final Packaging**

The Packaging format stayed consistent with other designs with a few subtle changes. All-in-all, it remained a clean, simple and communicative design.



# **SHAPE-SCAPES**



### Age 3.6 y/o

### Approach

The Product was focused on helping child complete scenarios by placing the correct shapes in the blank space to teach objects are made out of simple shapes and help them visualize the colours and shapes of a complete image.

### Limitations

- MaterialPaperboard; MDFTo have a combination of both paperboard<br/>and wood, to enhance motor skills and save<br/>costing.
- Colours Asian Paints' shade card Match and get exact colours on play boards and wooden shapes



Final Graphics with shapes placed

















Many iterations were done to









have simplified graphics but yet making them detailed enough for the child to understand.

Manipulating the objects visually to fit the geometric shapes.

Changing shape colours to and fro to match the colours on the card.

Minimum possible colours were used to save on the costing of sampling differnet colours.



# **FINAL PRODUCT**



### **Product Description**

The Shape-scapes is an activity with play boards having different scenarios and these scenarios need to be completed by matching colourful wooden shapes.

### Contents

6 Double-sided Play Boards 20 Wooden Shapes

### Learnings

The product aims to improve a child's ability to recognize and discern shapes, whilst imbibing the fact that the objects around are often assimilations of different shapes.





Spatial Reasoning



Fine Motor Skills



Logical Reasoning

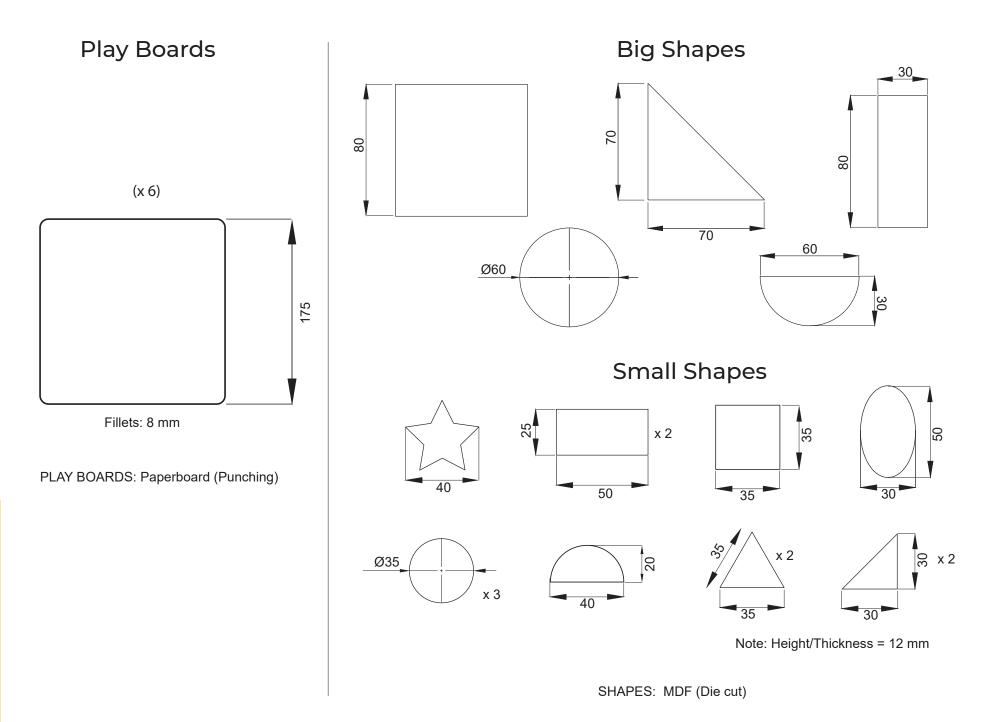


Creative Thinking



Decision Making





**PRODUCTION FILES** 

### Play boards

















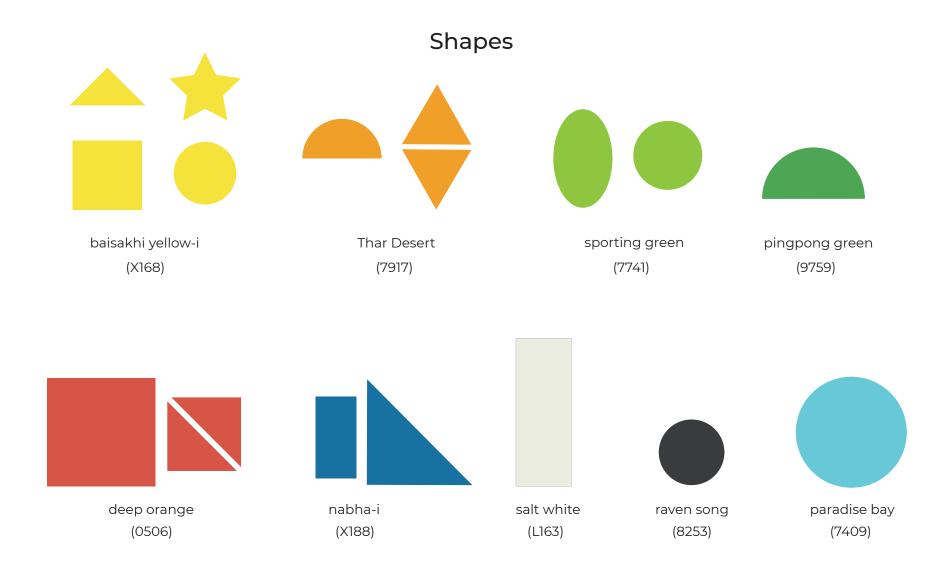








GRAPHICS: Digital Print



SHAPES: Paint (colour names and nos. are according to the Asian Paint shade card)

# PROTOTYPING





### Insights

- Manufacturing error with sizes of shapes
- Limiting the number of colours and changing them to match the shade card
- -Fillets of 2 mm to shapes
- Cards are fine.





### Age 3.10 y/o

### Approach

The Product is focused to help children think logically about the correct order and sequence in which events transpire.

### Limitations

Material Rubber/ Beech Wood To make it a 3 dimensional product, durable and lightweight



### Explorations



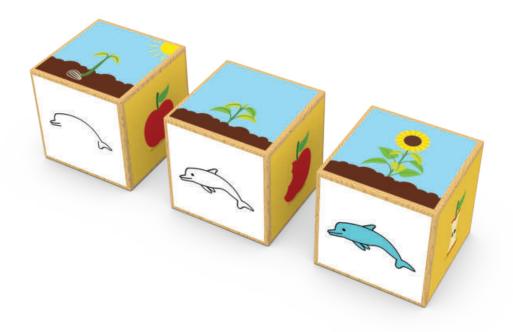
Based on the sequences decided by the content team initially did quite **minimal artwork** so it gets easy for children to identify.

Later the **graphics were detailed** out to make them look natural and child gets a good idea of the whole scenario and not just an object.

But the printing of such detailed artwork was getting difficult on the wood so had to remove the opacity and have **more solid coloured graphics**.

Finally after multiple trials and samples the detailed artwork wasn't printing well so changed few sequence and went forward with **minimal artwork and solid colours.** 

# FINAL PRODUCT



#### **Product Description**

'Clever Cubes' is a set of 3 cubes designed to help children understand and answer 'What comes next?' It enables children to enjoy their play time as they learn to observe and arrange these cubes in correct sequences

#### Contents

3 Wooden Cubes

#### Learnings

This Activity helps the child understand simple sequence of events that occur in day-to-day life around. Sequencing is an important skill that provides a foundation for both reading development, scientific inquiry and develop comprehension skills.

## **KEY SKILLS**



Fine Motor Skills



Critical Thinking



Logical Reasoning

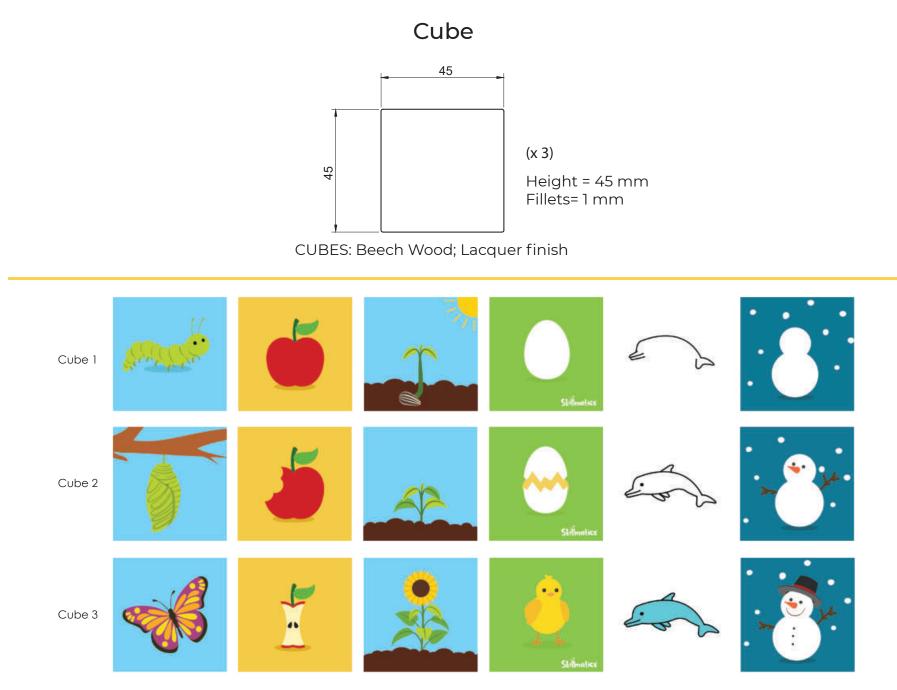


Observation



Spatial Reasoning





CUBES: Digital Print

# PROTOTYPING

#### Sample 1



#### Sample 2



#### Sample 3





## Insights

#### Sample 1

- Print quality and wood finsih was bad, print got shifted

#### Sample 2 - Background colours were dull

#### Sample 3

- Changed the material from rubber to beech wood
- -Print and wood finish quality is perfect

# **DEEP DIVE WITH 1,2,3,4,5**



#### Age 3.2 y/o

### Approach

The Product was focused on helping the child learn to count up to 10 in every possible way i.e. digits, words, subitizing etc. To improve counting skills, mental pocessing and faster grasping.

#### Limitations

PaperboardMaterialTo keep size and weight low; more quantity



#### Form and CMF Moodboard

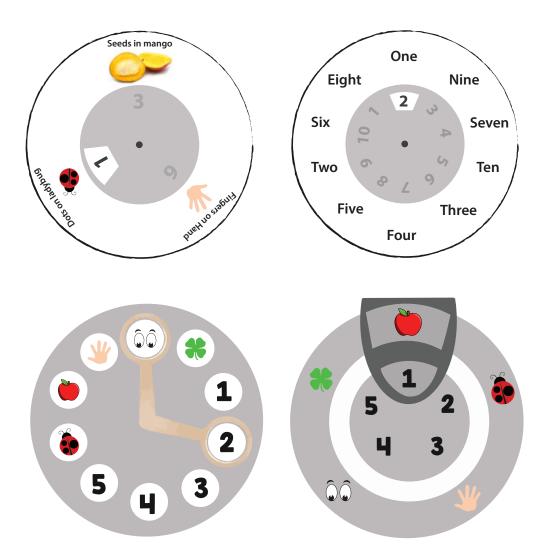


Aquatic theme Puzzle Minimal Readable

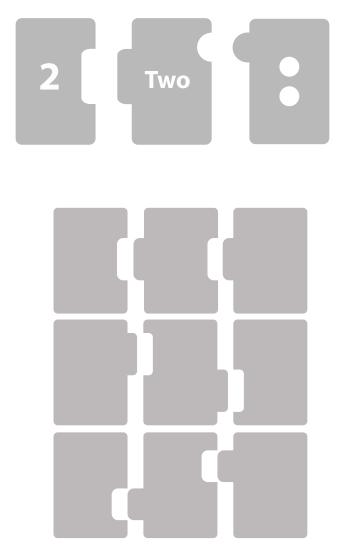
Aquatic/Underwater Theme was decided since children are fascinated by it and it is often searched theme by parents.



Find the number of...



Complete the puzzle





## Explorations



un

SACA:

Font and graphics explorations based on Underwater theme.

# **FINAL PRODUCT**



#### **Product Description**

Deep Dive is a number puzzle that helps learn to count up to 10 as you piece together the puzzles, over and over again!

#### Contents

30 Puzzle pieces

#### Learnings

It focuses on building Number Recognition that is the ability to visually recognize the different numbers, name them, and understand what 'quantity' they stand for and build Counting skills.

## Key Skills



Spatial Reasoning



Mental Processing



Fine Motor Skills

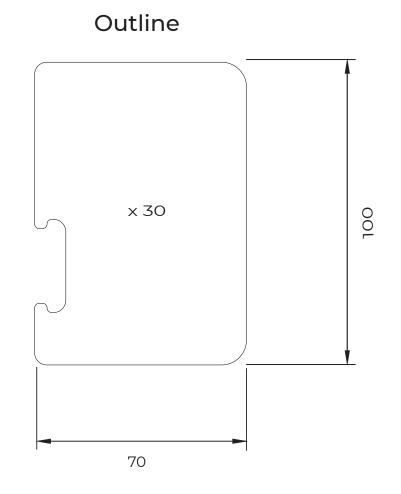


Critical Thinking

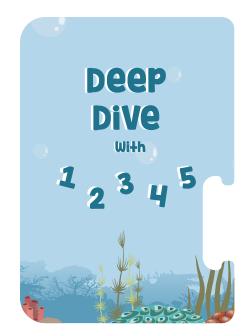


Observation





Back



PUZZLE PIECES: 2 mm Paper board (Puching die cut)

PUZZLE PIECES: Screen Print

**PRODUCTION FILES** 

# **PRODUCTION FILES**















6

SEVEN

8

EIGHT ,













PUZZLE PIECES: Screen Print

# PROTOTYPING

#### Sample 1



#### Sample 2



## Insights

#### Sample 1

- The connections are sliding off, need to change the shape.

#### Sample 2

- Centre aling the back logo and central pieces' graphics

## SMART SLOTTER TRANSPORT



#### Age 3.4 y/o

## Approach

The Product was focused to teach the identifying and sorting of different mode of transport and the vehicles respectively. It also helps improve process planning, improve world knowledge and decision making skills of the child.

#### Limitations

Material	Folding Carton Material To give a 3D structure and make it more interactive, easy to assemble and lightweight.
Dimension	< <b>297*210 mm</b> To be able to fit in a A4 pagaging box; avoid too many parts



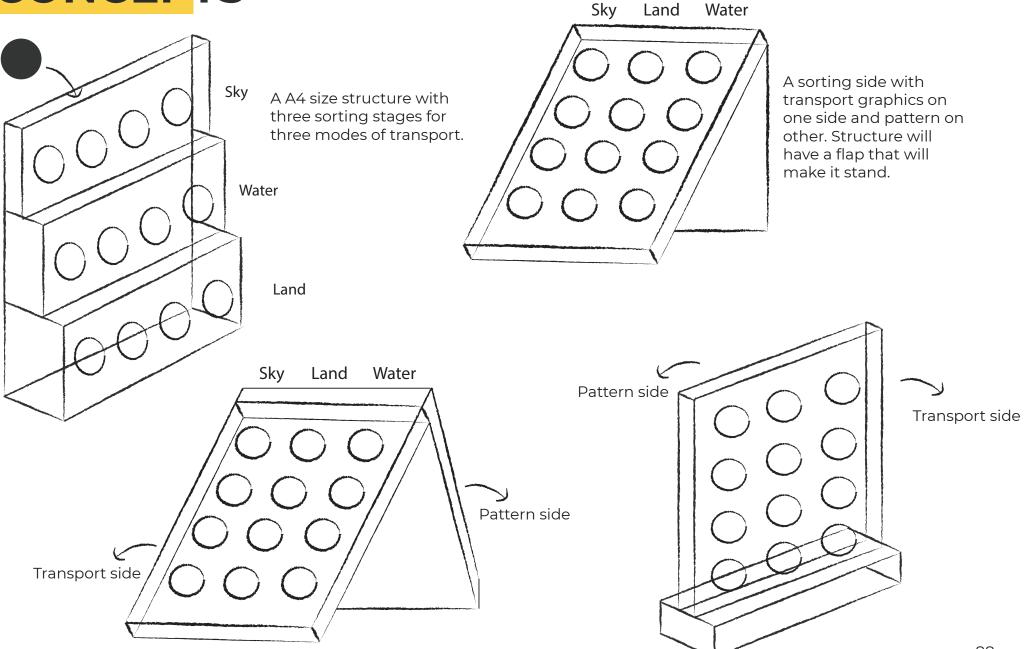


Intuitive Captivating Comprehensible Feasible

Transport is the Theme for this product showing different modes of transport and the vehicles according to them.

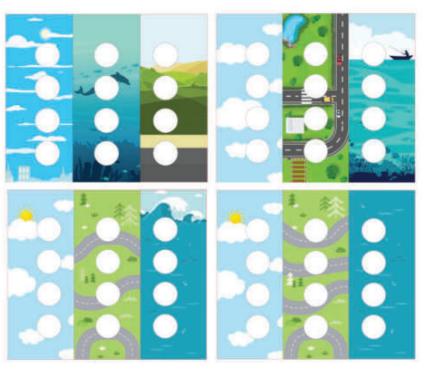
The structure has to be made from folding carton material which should be easy to assemble.

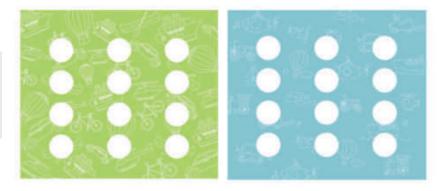






#### Slotter Graphics Explorations





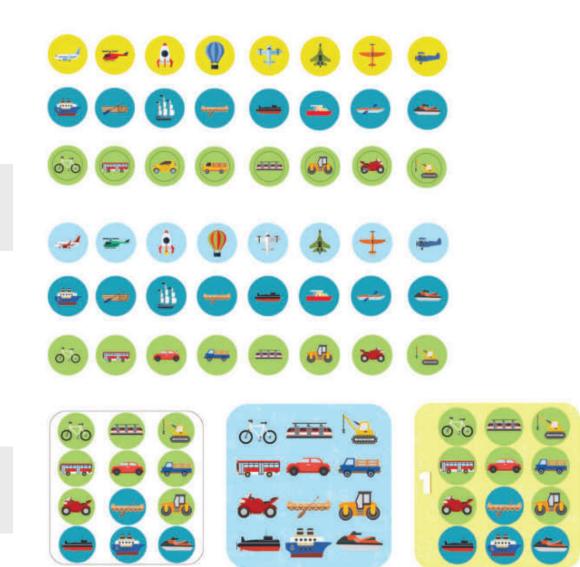
A lot of explorations were done to get the **all three modes of transport** and its graphics in harmony to each other as well as make each one stand out easily.

The water side took more trials since water vehicles are both inside and on the water surface which shouldn't be confusing for the child to interpret.

The **other side** has outline pattern of vehicles to keep it consistent throughout the board.



Tokens and Cards Explorations



For tokens, the vehicles were decided which should be taught and made their graphics look similar to each other.

The **vehicles** were systematically arranged on cards to make a pattern that children can replicate easily. The cards are made with 2 different layouts to increase the level of difficulty.

# **FINAL PRODUCT**

Mode of Transport side

Pattern Side



#### **Product Description**

The Smart Slotter (Transport & Patterns) intends to better the child's sorting skills, while improving their world knowledge as they learn to identify where different transport vehicles operate.

#### Contents

1 Smart Slotter 24 Slotting Coins 12 Pattern Cards

#### Learning

This product teaches children different modes of transport, the vehicles and build world knowledge. The challenge cards help in recognizing and recreating patterns by observation and planning the process.

## Key Skills

Ś



Decision Making



Process Planning

Fine Motor Skills

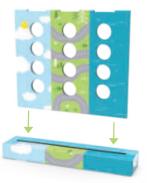


Problem Solving

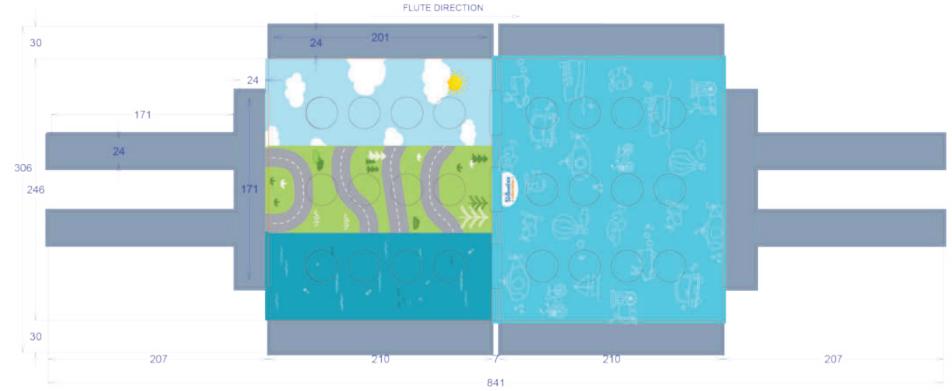
Observation



## Slotter Top





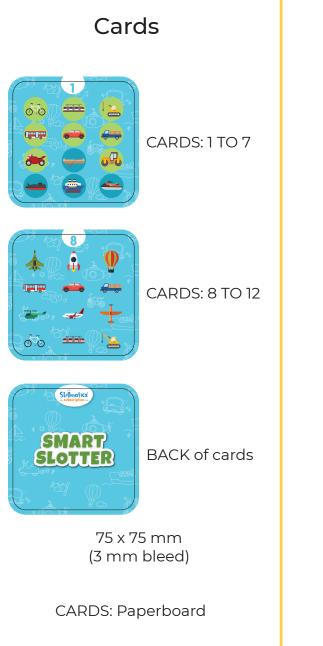


SLOTTER TOP: 230 GSM Folding carton material





Slotter Base



#### Tokens



In the Sky vehicles: 8



In/on water vehicles: 8



On land vehicles: 8

40 mm (3 mm bleed)

TOKENS: Paperboard

# PROTOTYPING



## Insights

- The structure fits well.
- Print is as required.
- Overall easy to assemble, use and fits perfectly in the box.

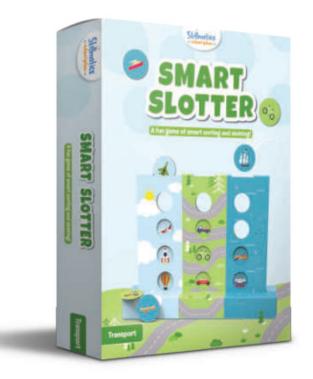


#### Explorations

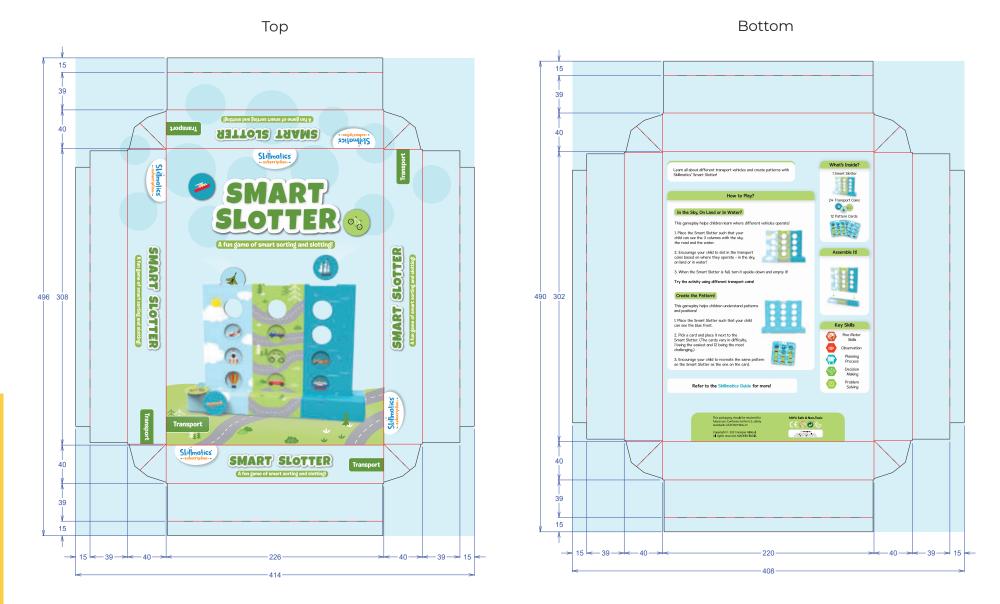


## **Final Packaging**

The Packaging graphics stayed in sync with the product graphics and remained a clean, simple and communicative design.



## Packaging Box KLD

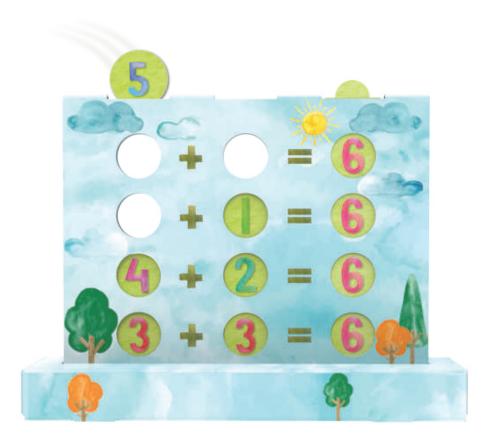


**PRODUCTION FILES** 

PACKAGING BOX: 300 x 220 x 40mm (Folding Carton Material)

# **SMART SLOTTER**

#### NUMBER BONDS



#### Age 4.10 y/o

### Approach

The Product was focused to teach number bonds i.e. addition or subtraction of a number through different ways and increase difficulty level of math.

#### Limitations

#### Material

Folding Carton Material To use similar structure as Smart slotter-Transport to make more use of the structure die required and save cost.

# MOODBOARD



Colourful Engaging Feasible Adaptable

To use watercoloured graphics to maintain consistency with other products. Have clear readable numbers.



#### Explorations



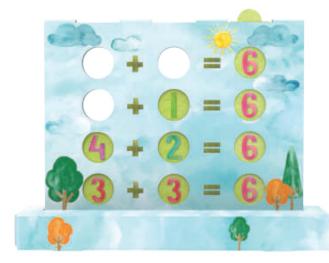
 $\begin{array}{c}
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + & = \\
 + &$ 

Graphics Exploration started with basic maths/ numbers theme to exploring about more engaging theme based graphics like space with planets as the tokens, park with different balls as tokens etc.

Most of the products in 4-5 aged boxes have a **watercolour** look graphics but box 6 didn't have one so explored and went forward with one of it.

# **FINAL PRODUCT**

Addition Side



#### Subtraction Side



#### **Product Description**

Smart Slotter-Number Bonds is a fun game of sorting where the child learns number bonds through addition and subtraction of numbers on either side of the slotter.

#### Contents

1 Smart Slotter 24 Number Coins 10 Number Strips

#### Learning

This product teaches children number bonds through addition and subtraction of a number using combinations of numbers and increase difficulty level of math. It also helps with process of planning and decision making skills.





Fine Motor Skills



Decision Making



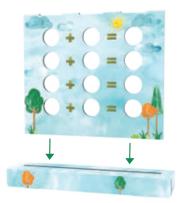
Process Planning



Problem Solving

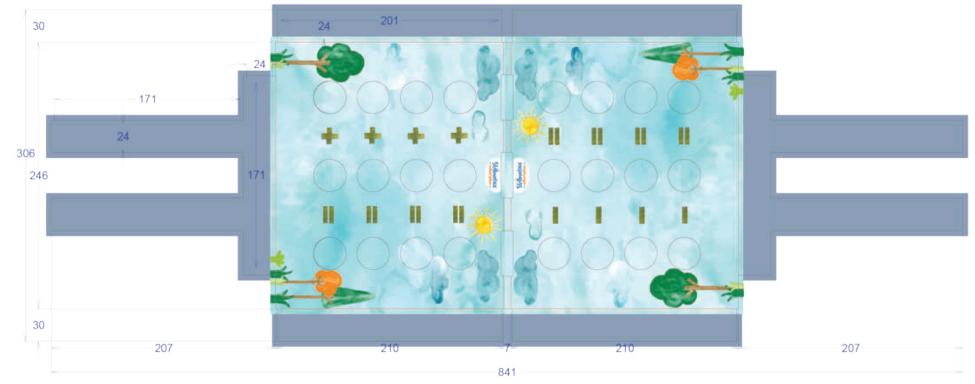
Observation





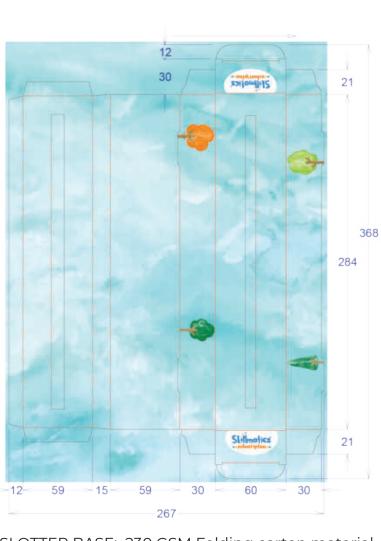
Slotter Top KLD





SLOTTER TOP: 230 GSM Folding carton material

# **PRODUCTION FILES**



Slotter Base KLD

SLOTTER BASE: 230 GSM Folding carton material

Strips NUMBER STRIPS: 1 TO 10



Tokens NUMBER TOKENS: 0 TO 10 ( X 2)





40 mm

TOKENS: Paperboard

# PROTOTYPING





## Insights

- Only the strip and token samples were taken to ensure the dimensions and the fit in the previous structure.

- The print and fit is perfect.

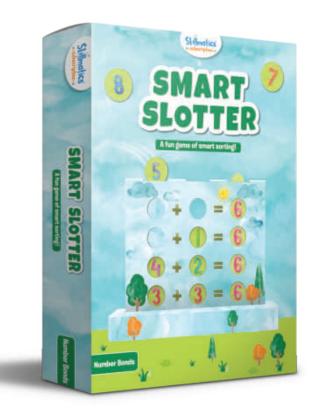


#### Explorations

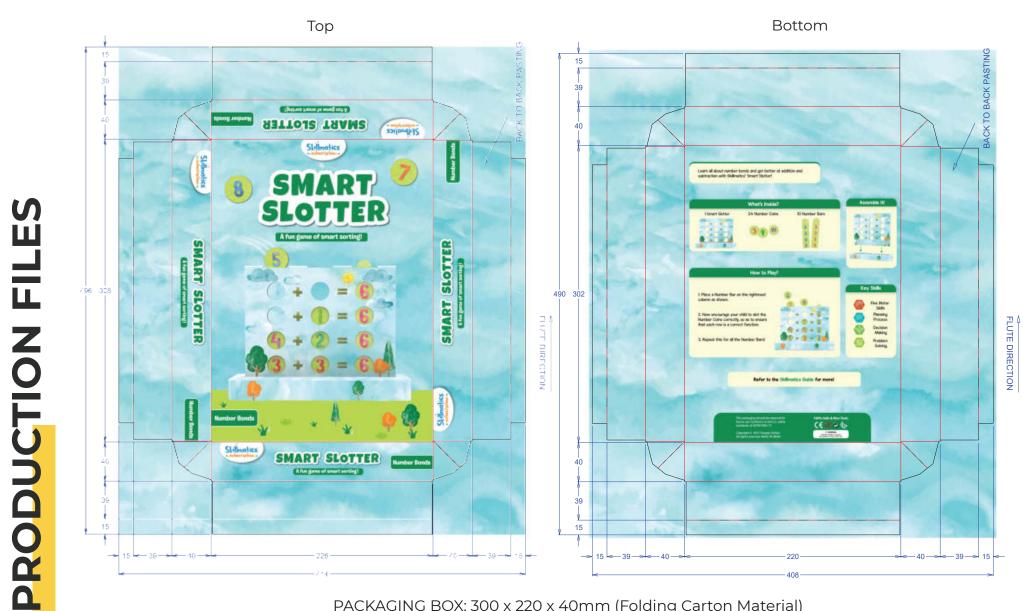


### **Final Packaging**

The Packaging format pretty much is similar to Smart Slotter- transport with a few content and graphical changes.



## Packaging Box KLD

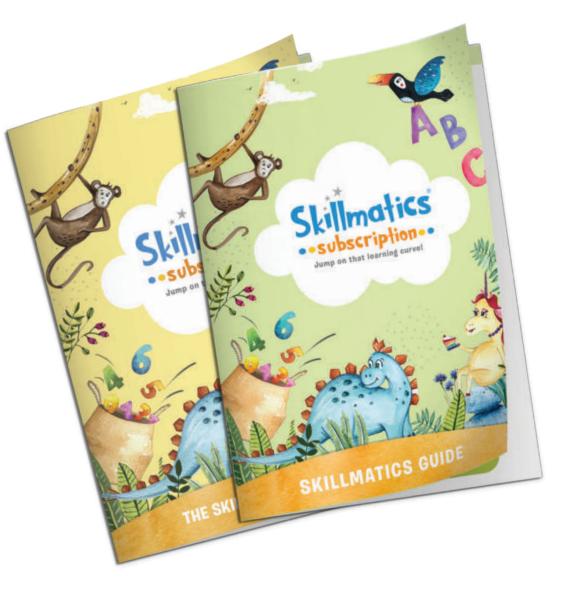


PACKAGING BOX: 300 x 220 x 40mm (Folding Carton Material)

# **PARENT** GUIDE

Skillmatics Guide is a guide for the parents that help them understand the contents of the box, contents of every game, why that product?, what skills will be taught? & how to use it? All questions that a parent has are been answered in here!

The parent guide was largely done by a few people, where I was responsible for the product renders required in the guide for all the products throughout the subscription boxes.



# PARENT GUIDE



This present energy that year state is spring one to see to react any other than the second s

This product sprace, to be add contracting, we the real of damped protocol ( the lengths that dependently be availy addler of dampers, evaluate processes to be seen to be addressed as they pro-

barrier is the addition to increasing exception than heard increases of a grant, without includy second tests of the second second second and larged on a trace with X adds, one are adde by increasing increasing the additional second second second increasing increasing the additional second second second increasing the darks, that increases on the second increasing the darks, the increases of the additional term increases of the additional term increases of the second performance and the second performa

To help your claid adds addrighting plotts, form the product to the other all the interest data. This firms, goods your child to search and about band or trace bands manyfine of the basestity of salared date!



Back year of the become surface in cluster for higher houses satisfies proton part has been been and alterna proton to an under the data and alterna in the beam of the surface of data and alterna in the terms of the means the data was all through the cluster of means the data was a second proton to cluster a means the data was a second proton to cluster a means the second area and alterna means the second area and the second of the surface area the second of the surface of the second to be second to means the second and the second to means the second area and the second to means the second area and the second to means the second and the second to the second to be second as a second to the second to be second to the second to the second to be set of the second to the second to

same of

0000

to militaria these Learning Outco

Y ANN your shirts to many one attrange your processes and sound them as many-law.
7 And your shirts to shirt, you put the details have and anone an analy funct, and typeds are the factor have see people in poor family?

I dail a die and est poor rouge water of dass may not tone the set of the born uniter dia. And the set tone a gener



Successfully to key to zer minute and we design to answe every one of our products con help your shild team infestion.



1 Grougher year shills Country & Serling skills by abling their to find serl and not Country into a group - a group of Mexicon and a group of Tolos, end then sould tone many Country are in self, group!

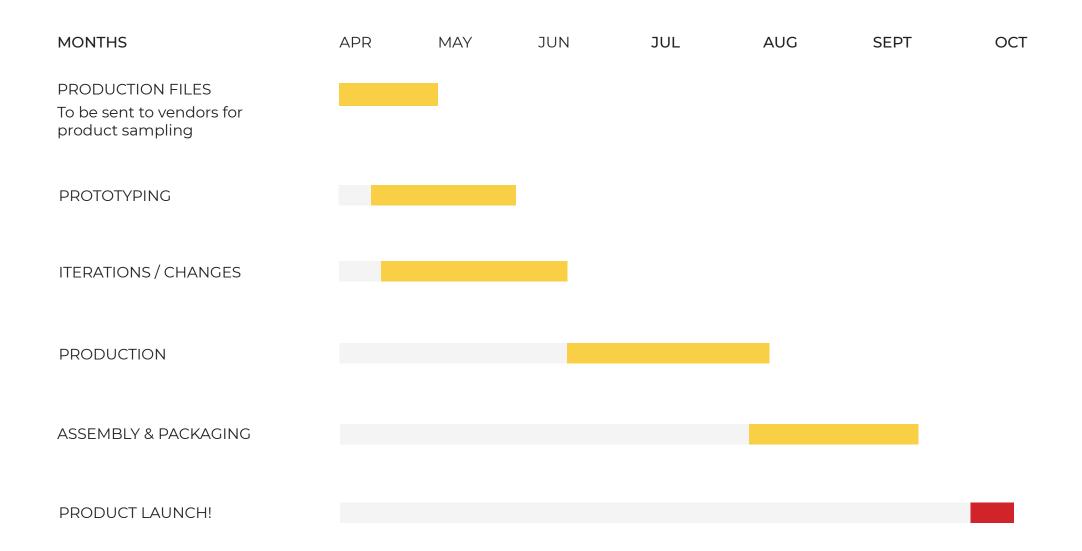
53



I days over shall hald hay for watershile by ansaying them by halons the Black one top of the other without lefting family haple over these Countries on buildin them your child caretage halding blacks while with family have to practice spaning considerates and hald graphs. Have to practice spaning

3

# **PLAN OF ACTION**



# **SUMMING UP**

When I received my brief, I was excited to be part of this team and work on multiple products thinking it will give me a lot of opportunity and help learn various things. There were lot of intricacies and technicalities that went behind each step of the process. I finally know what "you'll realise when you go into the industry" really translates to. Though working from home was way different and a new experience than it would've been in a normal scenario.

My journey at Skillmatics has been an enriching experience both professionally as well as personally. Prapti and team put their faith in me by making me individually handle multiple products and giving me the responsibility of completing them and keeping them market-ready for the product launch! As daunting as this sounded, it gave me an unparalleled industry exposure and I am extremely grateful for the opportunity! The satisfaction of being the part of such a hard working team who has succesfully completed 12 subscription boxes with 36 products in last 5 months has been tremendously inspiring!

As this book marks the end of my academic years at MIT, I leave with a sense of pride and accomplishment to see how much I've grown. Being surrounded by a culture of passion and purpose has only accelerated my desire to have an impact and mark my place in the world. I look forward to the challenges ahead of me and will always thank my stars for my (pre-pandemic) days at MIT.

# **BIBLIOGRAPHY**

#### Websites

NPD Group: https://www.npd.com/wps/portal/npd/us/news/press-releases/ 2020/us-toy-industry-experienced-19-percent-growth-in-the-first-three-quarters-of-2020/

Verywell family: https://www.verywellfamily.com/toy-subscription-services-2765126

Statista: https://www.statista.com/statistics/195054/total-revenue-of-us-toys-and-games-market-since-2005/

The Toy association: https://www.toyassociation.org/ta/research/data/u-s-sales-data/toys/research-and-data/data/us-sales-data.aspx

Self-sufficient kids: https://selfsufficientkids.com/educational-subscription-boxes-for-kids/

Transparency market research: https://www.transparencymarketresearch.com/kids-activity-box-market.html

Skillmatics: https://www.skillmaticsworld.com/

Hitwise Subscription box report 2018: http://hitwise.connexity.com/rs/371-PLE-119/images/Subscription-Box-Report-2018.pdf

The toybook: https://toybook.com/us-toy-industry-30-billion-2020-npd/

Exploding topics: https://explodingtopics.com/blog/toy-industry-trends

Amazon: https://www.amazon.com/s?k=skillmatics&ref=nb\_sb\_noss

Research and markets: https://www.researchandmarkets.com/reports/5311931/indian-toys-market-industry-trends-share-size#:~:text=The%20Indian%20toys%20market%20reached,US%24%201.23%20Billion% 20in%202020.&text=Looking%20forward%2C%20the%20publisher%20expects,has%20witnessed%20a%20rapid%20growth.

## THANK YOU FOR READING.