



TM  
Y B Y

Construction & Balance Toy

By MYCBOO™ Studio

MYCBOO Founder/Design Lead  
Dr Rosangela Tenorio

Design Advisory  
Bruno Oro

Safety and Compliance Advisory  
Richard Hayman, HWC Consulting PTY Ltd

Videography and Photography  
Diego Silva

Educational Advisory  
Dr Raquel Scartezini

Mycboo Studio  
Design Awards



Social Impact Partner:  
Tilofe, Timor-Leste

<https://www.facebook.com/people/Tilofe-Timor-Leste-Organic-Fertilizer/100070913492376/>

MYCBOO™ Studio  
[www.mycboo.com](http://www.mycboo.com)  
Email: [hellomycboo@gmail.com](mailto:hellomycboo@gmail.com)  
Find us on Instagram @MYCBOO





## VISION & MISSION

Our Vision is to advance and normalize circular economy principles across children's environments through creative design, while awakening their drive to regenerate our planet.

Our mission is to incorporate biomaterials into the everyday life of a child through innovation and design for development, creativity and play.



## WHY BIO-BASED DESIGN?

Research shows that over 80% of parents wish their kids were actively and effectively learning about sustainability as early as elementary school [not just being aware of it]. More than 65% of teachers feel they don't know enough about it or that they don't have tools to support such pro-active learning. One of the most tangible ways to bring environmental action into a child's world is through knowledge of how the physical materials around them is made, and its impact on nature and on people.

Children learn through play. By bringing bio-based design into children's spaces we are off to a key behavioural transformation into society. Biomaterials like bamboo are fast growing and absorb 4-6 times more carbon dioxide than trees. When a designer chooses to work with biomaterials, we are storing rather emitting carbon and not releasing hazardous chemicals into a child's environment. We are working towards sustainable consumption and production patterns, as these are materials we can grow and are renewable. Biomaterials instigate play and curiosity in learning while opening a new relationship with nature.

Moreover, the toy industry is the most plastic intensive industry in the planet. 90% of toys are made of plastic that contain PVC or Phthalates, are petroleum based, hard to recycle and mostly used for just 6 months before sent to landfill.



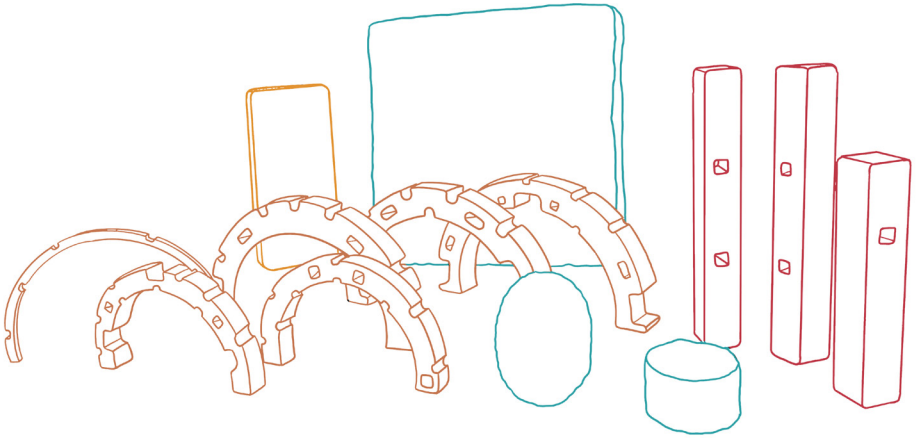
YBY Spider



## WHAT IS YBY?

YBY™ is a balance and construction toy, that challenges the square model of play of traditional wooden toys, using a system of arches and linear pieces that operates both in compression and in tension. This allows YBY to form the most organic shapes, spanning in all directions, not just vertically or horizontally. YBY brings premium bio-based quality materials manufactured for longevity and safety of play at its core, completely plastic free.

YBY™ was developed in the belief that imagination is an essential part of childhood and that caring for the environment is the platform for their future. YBY™ is a unique toy that encourages exploration, not just through visuals, but through sounds, texture, smells, expanding ones' intuitive self, activating multifaceted experiences inspired by nature's abundant resources and most of all unlimited beauty. YBY™ means 'Earth' in Tupi, an archaic language spoken by the indigenous people that inhabited Brazil at time of colonization around the 1500s.

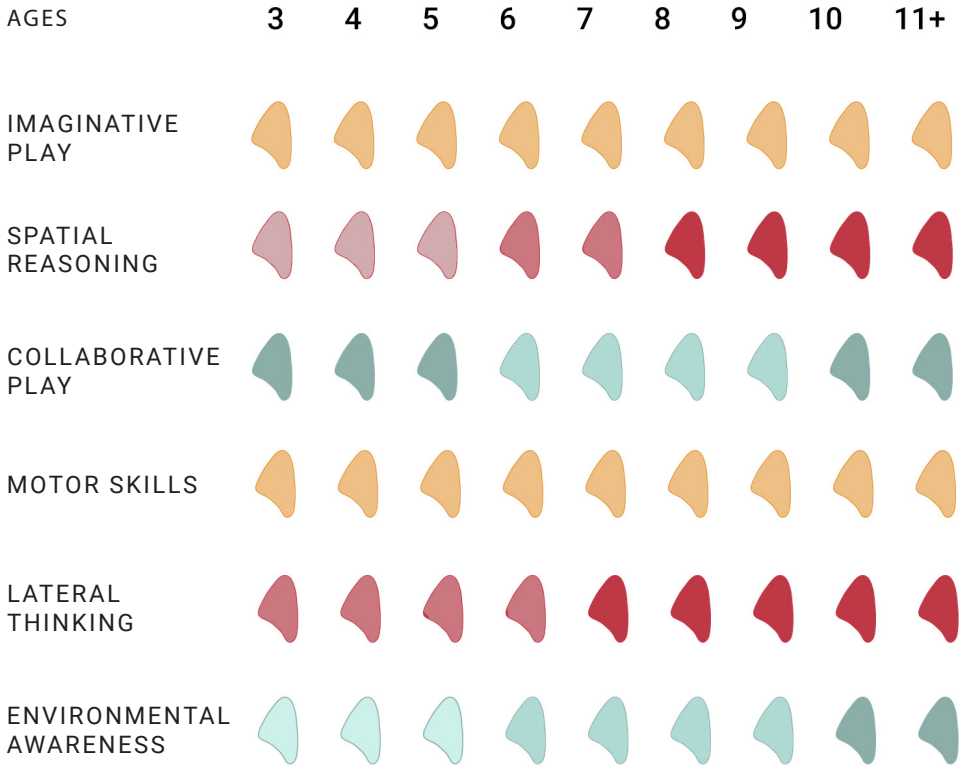


## THE DESIGN: TREE OF LIFE

YBY™ is a simple to use, open-ended system of multifaceted playful pieces. Designed with embedded magnetic connections of mycelium and bamboo. This added to a customized locking system of arches and sticks in combination with linear pieces offers endless opportunities for play.

The inspiration for the design comes from the concept of the 'tree of life', an universal symbol of balance. Just like trees, YBY™ works on its foundation [feet] to allow structural growth, becoming thinner, longer/shorter and lighter as it grows cohesively higher to support branches, leaves and fruits.

The mycelium pieces are inspired by the roots and fruits of the tree. They form the 'flesh and fruit' of the toy, with its colourful appearance. The bamboo forms the 'structure and bones' of the tree that supports its growth. The toy plays with the ludic within the child, as it goes from literal to abstract, allowing them to develop on their own terms as they play.





## MYCBOO: OUR STORY

In 2010, I was living in New Zealand with my two sons, aged 7 and 14. Like many parents, I felt schools were not offering what children needed, in particular a curriculum that cared about the environment and that would instigate their lateral thinking to create positive change. I felt it was time for me to stop complaining and do something about it. With the experience as an architect and a lecturer for 20 years, I had to get that right.

I quit my position as a Senior lecturer in Architecture at the University of Auckland and went on a mission to acquire the knowledge, the experience and the supporters to design and build a new type of school. I gathered likeminded families and we did a lot of work. We set up parent's groups, conducted surveys, gathered supporters and validated our ideas into practice. I volunteered as a music teacher at orchestras in South Auckland and completed a Postgraduate diploma in Education. I became trully convinced that by changing schools we could in fact change communities.



Needless to say that the idea didn't quite work as originally planned. Architects think that buildings and structured organizations can really change the world. As simple as it might seem, I needed 3 years out of academia and immersed into children's environments to figure out this one – that play is the most powerful tool into learning. Thanks to the composer and music educator Carl Orff and my encounters with bamboo while living in China, a new approach was born. One based on environmental play at any age.

As I returned to the academic environment, I continued to test and perfect these ideas through content, ways of delivery and through design for environmental play for my students. Curiosity is the first sign of engagement. From that open ended approach, we can capture their imagination and it's very easy to get them to dive deeper, expand and bring solutions that are extremely innovative and yet very complex, multifaceted and purposeful. Why I didn't learn this earlier"? asks me a group of master students smiling after a 3 hour intensive lecture and workshop. Priceless! As a parent, as a teacher, this is what we want the most. That our children want to learn, want to engage, want to solve problems because they know the relevance of it and they have the tools to do it.



Yby was a conscious decision to create an educational tool for play that is ingenious and in fact indigenous to children. It's the first biomaterials magnetic construction and balance play toy that brings the values of sustainability, the ludic in play, and the joy of being back with nature through biomaterials.

Designed for classrooms it expands and supports teachers on bringing a range of cross disciplinary learning in many subject areas, from STEM to the Arts with a thematic focus on the environment. For parents to use at home and play socially with their children or let them get lost into endless open play with a toy that is made to last, is versatile and brings children to where they belong: the world of creativity and nature.

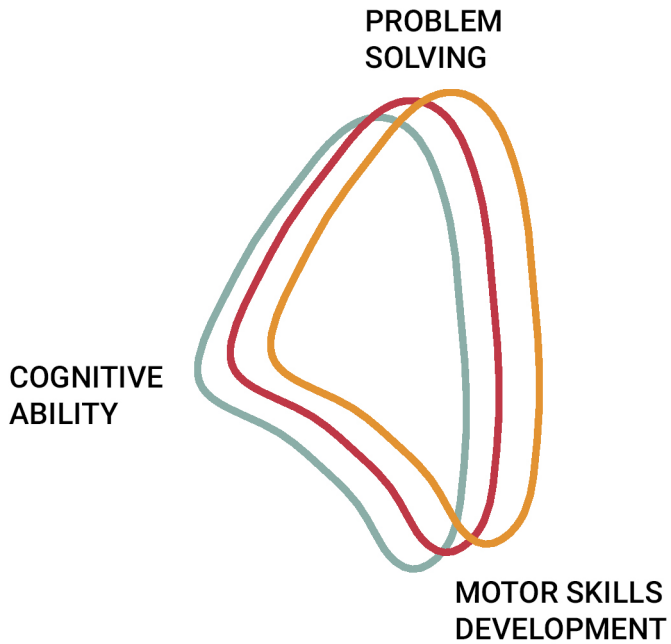
YBY delivers for families and communities a chance to become proactive on building a positive climate future, as designers and manufacturers of YBY are committed to deliver dignified ethical work, social and environmental impact on a global scale.

Let's YBY play!

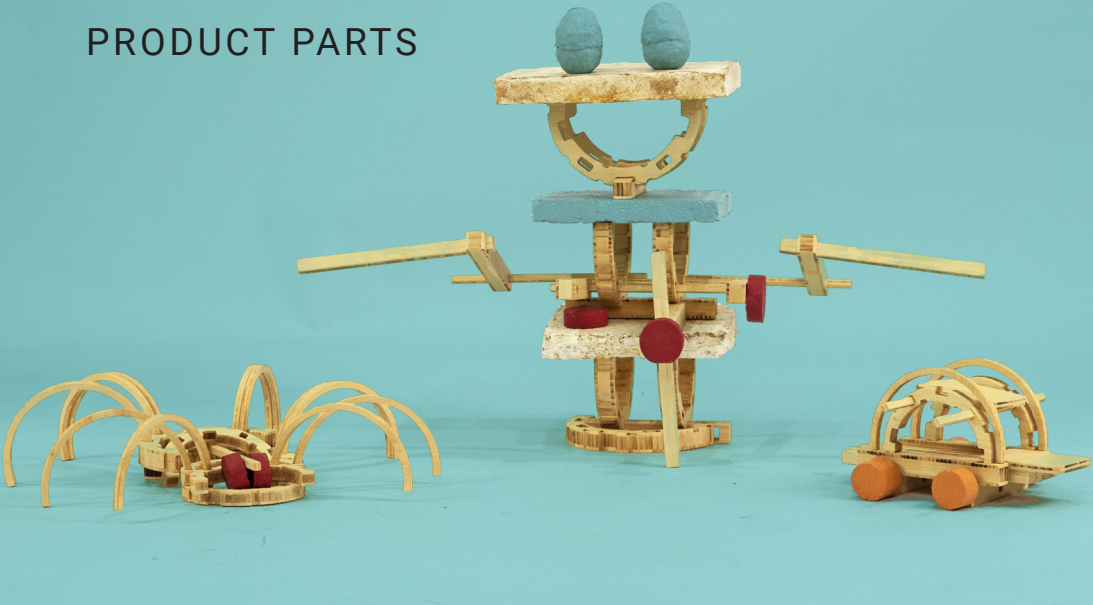








# PRODUCT PARTS



YBY™ Innovators Home Classroom Kit  
 Dimensions: 32.0 cm x 27.0 cm x 9.0 cm

TOTAL: 84 PIECES

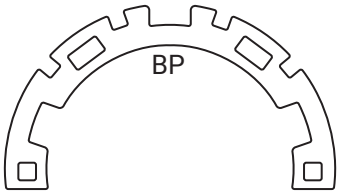
BP - BAMBOOPLY  
 MC - MYCELIUM  
 M - MAGNETIC PIECE



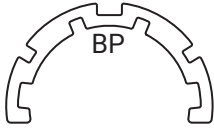
x10M



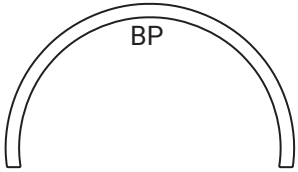
x2M



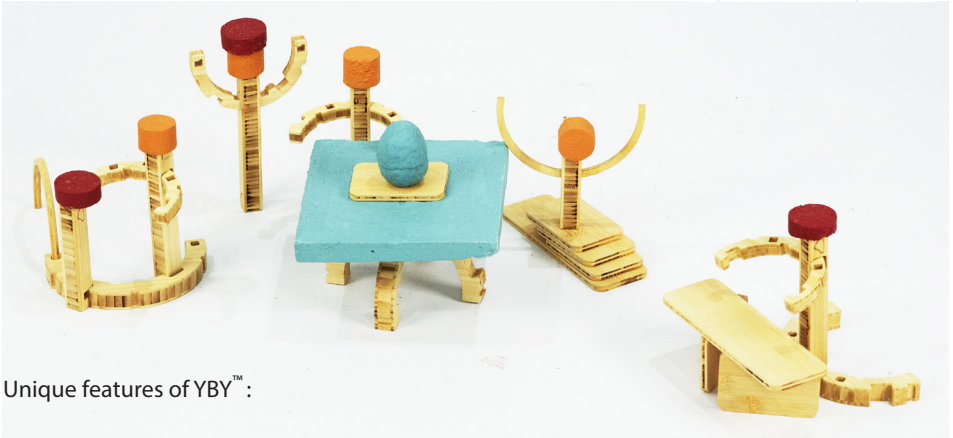
x8



x6

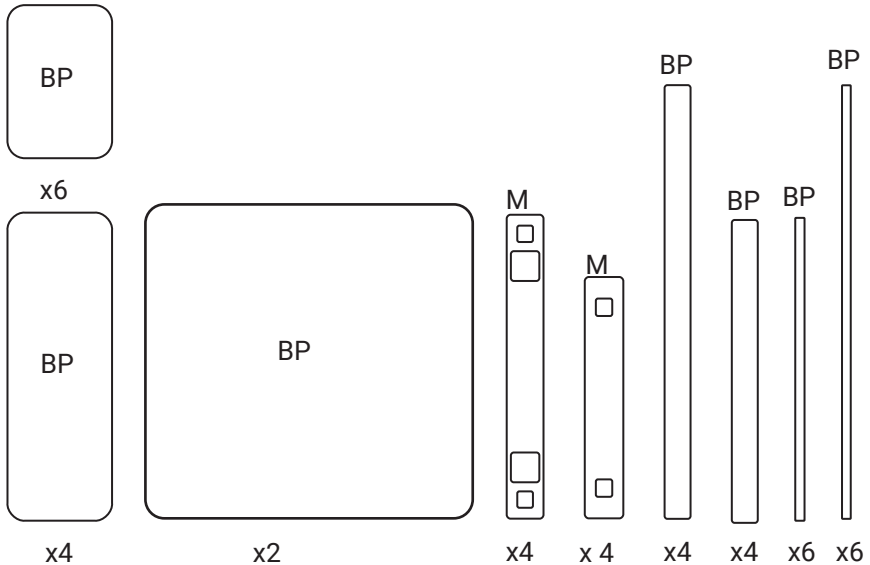


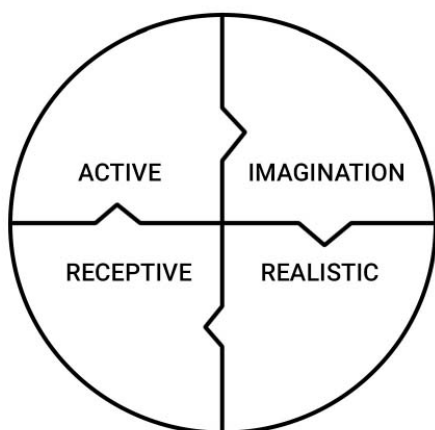
x8



Unique features of YBY™ :

- All the bamboo and mycelium parts of the toy are compostable.
- Designed and manufactured using digital fabrication technologies.
- 100% plastic free
- The magnetic pieces within the toy can be disassembled at the end of its lifetime and recycled.





**ENGAGING PLAY WITH YBY™**



## YBY™ SERIES



### AMAZON DESIGNERS

*Classroom Kit  
Larger groups*

---

- 256 PIECES

- 548 PIECES

- 



### INNOVATOR DESIGNERS

*Classroom  
& Home Kits*

---

- 138 PIECES

- 84 PIECES

- 46 PIECES



### EAGLES CREATOR

*Pocket  
Pouch Kits*

---

- 34 PIECES

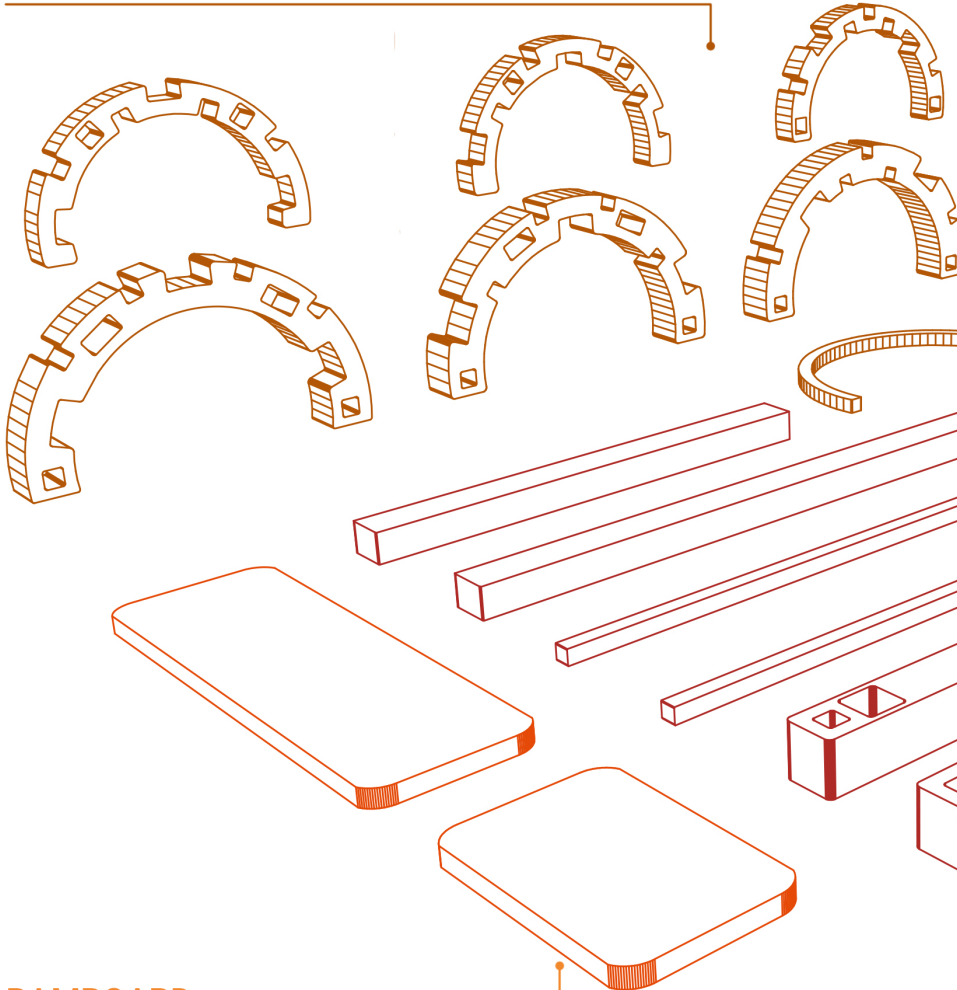
- 26 PIECES

-

# COMPONENTS


## ARCS

*As one of the first pieces designed, it is important for system thinking and pattern recognition.*



## BAMBOARD

*This wooden component contributes to versatile foundation structural building.*

Magnetic Connection 

## MYCEGG

*An unique, bright playful, story thinking device.*

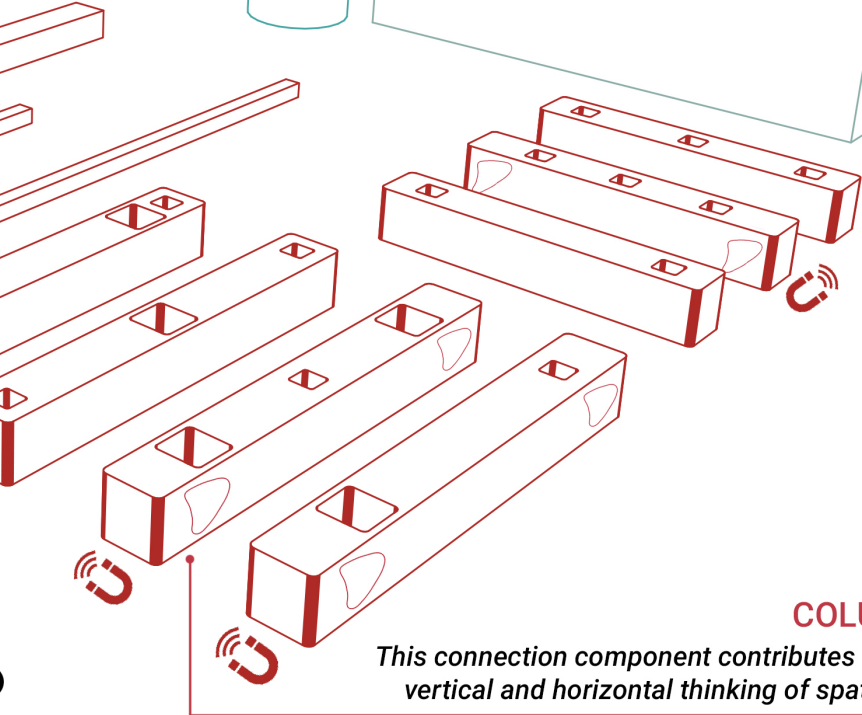
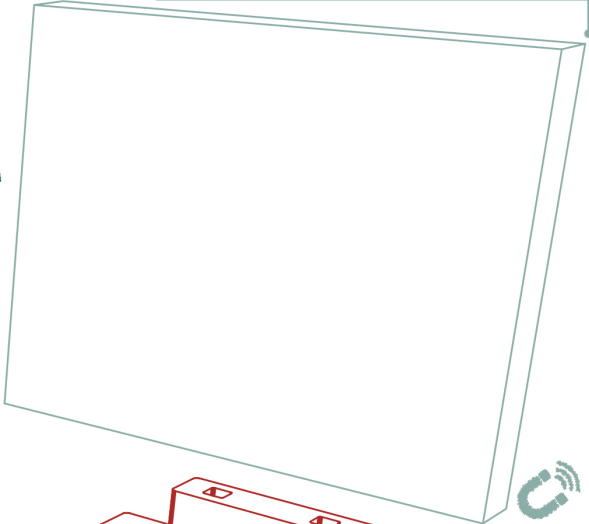
### CYLINDERS

*Pop of colourful system thinking devices.*



## MYCBOARD

*This tactile component contributes to solid foundation structural building.*



### COLUMNS

*This connection component contributes towards vertical and horizontal thinking of spatial play.*

**VERSATILE**

**INNOVATIVE  
DESIGN**

**ENGAGING**



**PLAYFUL**

**ENVIRONMENTAL**

**GENDER  
NEUTRAL**

**ACCESSIBLE**





YBY™ was designed using sustainable certified materials:

- Certified Bambooply,  
[Ecospecifier Green Tag for bamboo - Certified by FORAY Laboratories - NATA Accreditation 1231]
- Mycelium Based Composite  
[the vegetative part of a mushroom colony]
- 100% VOC free hemp oil  
[for bamboo pieces]
- Non toxic and low VOC paint  
[for mycelium pieces]



**WARNING:**  
CHOKING HAZARD — Small parts not for children under 3 years or any individuals who have a tendency to place inedible objects in their mouths.



BIO - BASED  
MATERIALS



PLASTIC  
FREE



GENDER  
NEUTRAL



CREATIVE  
LEARNING

**mycboo**<sup>TM</sup> VISION FOR CHILDREN IS



HEALTHY &  
QUALITY TIME



JOYFUL



NOT  
WASTEFUL



INNOVATIVE

MYCBOO<sup>TM</sup>

[www.mycboo.com](http://www.mycboo.com)  
Email: [hellomycboo@gmail.com](mailto:hellomycboo@gmail.com)  
Find us on Instagram @MYCBOO