

# Brain Development in 3 to 6 year olds

& How Parents Can Influence It



Designed & Published by

# Flintobox



Flintobox , in the interest of early child development, creates discovery boxes for children between the age of 3-7.

# Your child's brain; at birth



**Infant Brain is**  
**25%** of its  
**adult**  
**size at birth\***

This increases to about 60% by the age of 1.

*Healthy babies who receive plenty of maternal reassurances during stressful times actually have larger brains than babies who don't get as much motherly nurturing.*

The number of synapse in a child is dependent on the early experiences and environment of a child.

**What then, is synapse and why is it so important?**

\* National centre for infants, toddlers & families, Washington DC.



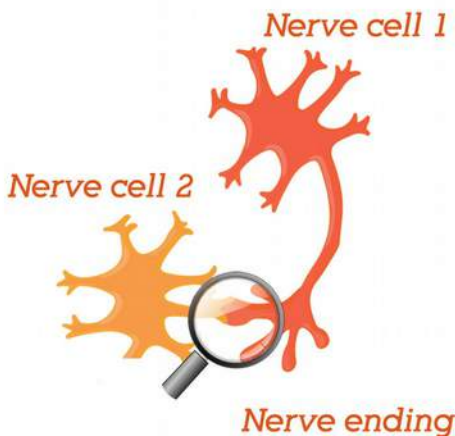


# Synapse



*What's the big whoop?*

As the baby grows, the brain cells form connections called **SYNAPSE**. Synapse is the one that passes information between various parts of brain.



A new born baby has only enough synapse to breathe, eat, sleep etc.

Synapse grows at an alarming rate during the ages 0-3.

## **DID YOU KNOW?**

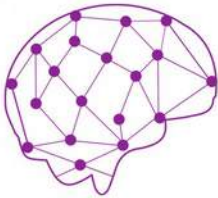
*Strength of one's memory & cognitive abilities is proportional to number of synapse.*



# Blooming- 'Tis the time



The process of brain creating more synapse, is called BLOOMING.



*New born*



*2 months*



*3 years*



*Adult*

Between the age of 2-3, the brain has bloomed twice as many as synapse. At no other time will so many synapse develop in one's lifetime. During this time the number of synapse is driven by genes.

## DID YOU KNOW?

At the age of the 3, the child's brain has close to 1000 trillion synapse.\*

So what drives it from the third year?

\* Publishing by North Dakota State Univ.





# Pruning

*Use it or loose it*

3 years



1000 trillion synapse



The process of brain eliminating unused synapse is called **PRUNING**.

Adult



10 million synapse

## Why pruning happens?

1. Synapses that are rarely stimulated (used) become weak and are eliminated (pruned).
2. Synapses that are stimulated (used) often become stronger and complex.
3. Pruning starts at 3 and mostly slows down only after 8 years of age . It almost stops at adolescent stage.
4. While the number of synapse at the age of 3 is related to genes, the number of synapse at the age of 8 is determined by the experience and the environment of the child. \*

**How can you ensure that your child does not lose more synapses before 8 years?**

\* The Urban Child Institute, Memphis, TN.

# Early sensory experiences keep the synapses alive

Children need to be actively engaged in 12 different areas to strengthen their synapse and develop holistically



GROSS MOTOR



FINE MOTOR



COMMUNICATION



COGNITIVE



SENSORY



SOCIAL



LOGICAL  
REASONING



BALANCE



IMAGINATION



THINKING &  
PROBLEM SOLVING



ACADEMIC



CONFIDENCE

## DID YOU KNOW?

*The more frequently these areas are engaged, the stronger synapses become, thus giving the child a fighting chance in this competitive world.*







Take them out to  
the playground.



Introduce them  
to new concepts.



Encourage them to  
make new friends.

## Ways to Actively engage your child



Explore their  
creative side.



Spend quality  
family time.



Make your house their  
personal gallery.



Read stories  
together.



## What is Flintobox?

Award winning discovery boxes filled with fun exploratory activities and games for children (**Age 3-7 yrs**).

Learn more about us at

[www.flintobox.com](http://www.flintobox.com)



## What Parents Say

"My kid is 5 and half years old and he's using Flintobox, it's amazing, my boy is very happy and I'm. He looks forward to his Flintobox time. Great work flintobox team." - Harshini

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