



# The Impact of Play on Brain Growth

Play is a powerful driver of early brain development and understanding how it shapes growth helps parents make informed choices that support healthy learning.<sup>5</sup>



Play increases synapse formation, boosting communication between brain regions.<sup>1</sup>



Repetition during play strengthens neural circuits tied to focus, memory, and coordination.<sup>2</sup>



Creativity-based play activates higher-order thinking areas, enhancing cognitive flexibility and planning.<sup>3</sup>



Play enhances brain structure and executive function, supporting self-regulation and learning.<sup>4</sup>



Play engages multiple brain systems, increasing overall neural connectivity.<sup>5</sup>

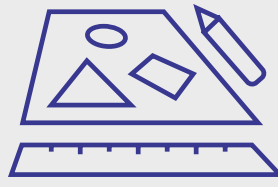


## Types Of Play That Boost Language, Math & Problem-Solving



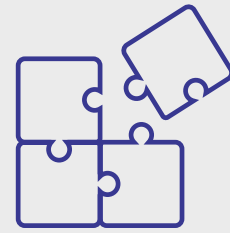
### LANGUAGE PLAY

- Pretend scenarios
- Storytelling with props
- Singing and rhyming



### MATH PLAY

- Block building
- Counting games
- Sorting and pattern activities



### PROBLEM-SOLVING PLAY

- Puzzles
- Treasure hunts
- Open-ended STEM toys



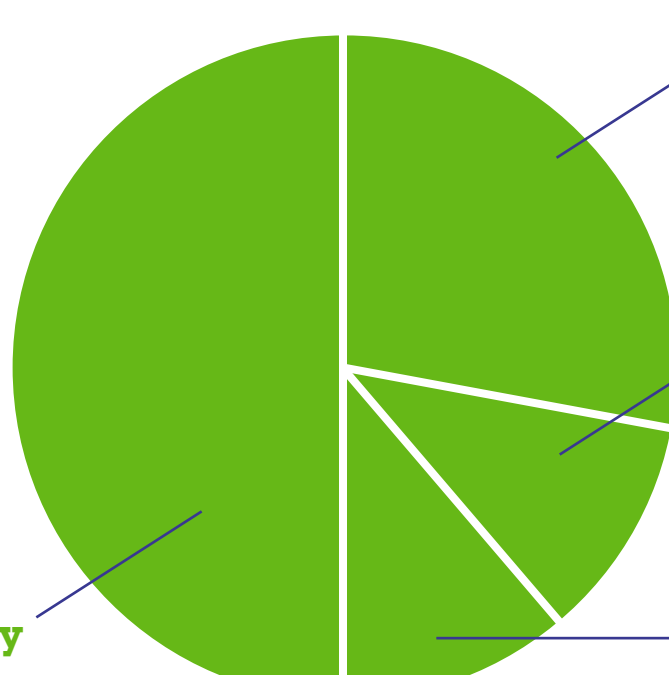
## How Play Strengthens Neural Pathways

- Builds perspective-taking and early reasoning skills.
- Strengthens language processing through back-and-forth dialogue.
- Encourages negotiation, planning, and emotional regulation.

## What Balanced Playtime Looks Like

### Unstructured Play (40 – 50%)

Free exploration, imaginative play.



### Outdoor Play (20 – 30%)

Movement, sensory engagement.

### Guided Play (10 – 20%)

Adult-led learning moments.

### Quiet Play (10 – 20%)

Reading, drawing, calm activities.

## Practical Play Ideas For Home

- Turn chores into mini challenges.
- Create a “loose parts bin” with safe household items.
- Build obstacle courses indoors or outdoors.
- Start a nightly storytelling swap.



### Sources:

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