

## BABY ESSENTIALS 0-4

Our hearty congratulations!

Now you are a parent!

Provide an enabling environment for your new-born.

Switch from usualness to novelty regularly – diversify your predictable environment(s).

Do not overwhelm your little one with toys and objects, pace them out in order to provide more time for exploration.

**Babies need something to:** grasp, shake, kick, squeeze, listen to and look at

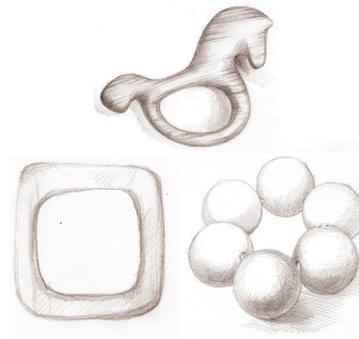
**Age-appropriate toys:** rattles, large rings, teething toys, mobiles, simple black and white visuals, unbreakable mirrors, crinkly paper, textured balls, soft materials/comforters

**Do not forget about:** safe everyday objects to explore and investigate

**Minimise:** electronics and musical overstimulation

### **Create your own sustainable gym(s) and station(s):**

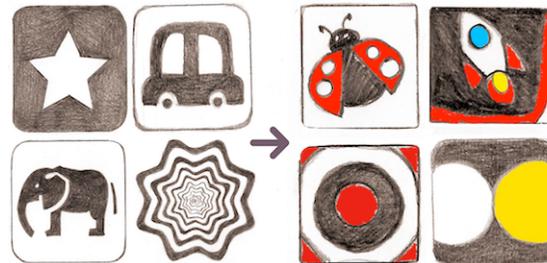
- Not too busy, not too loud, subtle & non-bright colours of the surrounding
- Natural and organic materials (wood, cotton, etc.)
- A few mobiles and/or self-made dangling toys on an elastic waistband. **Do not leave child unattended with hanging toys/objects. Chocking hazard!**
- Make a plan. Ensure regular daily/weekly rotation of toys/objects and stay consistent with your choice.
- Your collection of toys and playful things extends gradually, from 0 to 12 months. As of 12 months, start removing outgrown toys and keep expanding with age-appropriate tools.



Equip yourself with sustainable high-quality **grasping toys** in different sizes and shapes that will turn into teething toys to mouth on at around 4 months. Ensure the gripping rod is thin enough for the young age, a toy is lightweight. The older a child, the thicker grasping points.

- Your baby learns first handling of objects and toys: hand discovery, hand-eye control, body awareness
- Your child works on a grasp reflex: unclenching tight fists – “grasp & grip”

Closer to 3 months, introduce toys like grasping beads, they encourage transfer practice – from hand-to-hand and an engaging tactile experience.

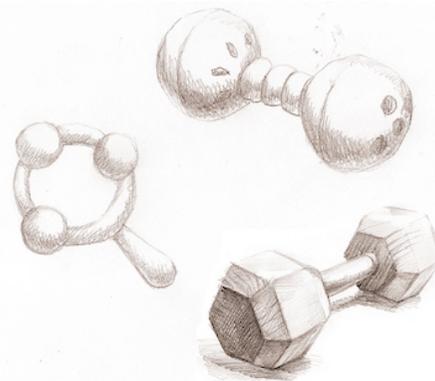


Babies are drawn to **contrast images** in the early months. Display the cards about 20 cm from your baby as this is the distance the cards will be most clear. Gradually increase distance until 30 cm within 3 months. Adapt the distance, if you feel it is too far for the baby.

- Start with *simple* black & white cards between 0-3 months
- Move to more *complex* colourful contrasting images between 3-6 months. Ensure a red colour is present – babies start seeing red.

Perfect for tummy time (strengthen the core) and baby’s vision (stimulate the optic nerve).

**Careful!** These are for display only, under parental supervision. Once your baby starts grabbing and mouthing, keep the cards at a safe distance (e.g., hanging).



Traditional **rattles** with different fillings and sounds - first music- and noise-making toys. Ensure they are lightweight and thin enough for tiny hands to generate noises easily and accomplish a whole hand grasp.

- Your baby moves his/her arm, a rattle produces a gentle sound, the baby moves his/her eyes, then the head to follow: connecting movement of objects to their sound sources. The rattling is being tracked with eyes.
- Here you go – your baby’s first math skills: shake a rattle in a rhythm with different patterns, e.g. “shake, shake, pause”, and pretty soon, your little one will be recognising a number of shakes they are hearing.
- Each time babies elicit a jingle from a rattle, they learn about cause and effect (closer to 4 months).

## BABY ESSENTIALS 4-8 (Part 1)

Your baby is growing! You can introduce more exciting activities!

Further development of the hearing, sight, touch and taste.

Provide an enabling environment for your baby.

Switch from usualness to novelty regularly – diversify your predictable environment(s).

Do not overwhelm your little one with toys and objects, pace them out in order to provide more time for exploration.

**Babies need something to:** grasp, shake, hold longer, transfer, kick, squeeze, swipe, push, pull, pick, reach out, listen to and look at

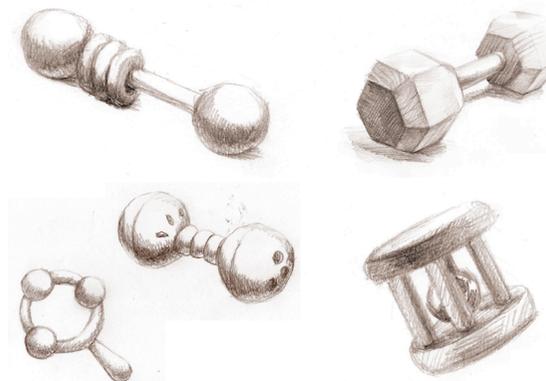
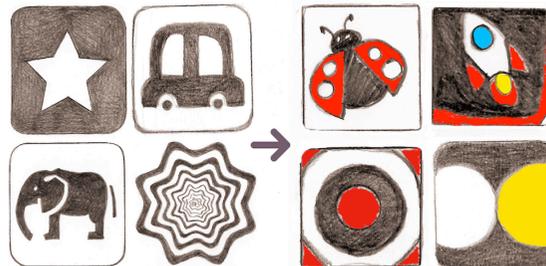
**Age-appropriate toys:** rattles, large rings, teething toys, mobiles, simple+complex black & white & colourful visuals, unbreakable mirrors, crinkly paper, fidget toys, rolling bells, tumblers, textured balls, soft materials/comforters

**Do not forget about:** safe everyday objects to explore and investigate

**Minimise:** electronics and musical overstimulation

### Create your own sustainable gym(s) and station(s):

- Not too busy, not too loud, subtle & non-bright colours of the surrounding
- Natural and organic materials (wood, cotton, etc.)
- A few mobiles and/or self-made dangling toys on an elastic waistband. **Do not leave child unattended with hanging toys/objects. Choking hazard!**
- Make a plan. Ensure regular daily/weekly rotation of toys/objects and stay consistent with your choice.
- Your collection of toys and playful things extends gradually, from 0 to 12 months. As of 12 months, start removing outgrown toys and keep expanding with age-appropriate tools.



Equip yourself with sustainable high-quality **grasping and teething toys** in different sizes and shapes. Babies typically start mouthing by 4 months, once they're able to bring their hands to their mouths and suck on their fingers.

Ensure the gripping rod is thin enough for the young age, a toy is lightweight. The older a child, the thicker grasping points. Your child continues:

- learning handling of objects and toys: hand-eye control and body awareness
- working on a grasp reflex - "grasp, grip & release" of objects and by 6-7 months moves towards a raking grasp (using all fingers to pick up objects). Once your child starts sitting (between 6-8 months), provide safe objects for pick-up activities

Pay particular attention to toys like grasping beads, they also encourage hand-to-hand transfer practice and engage in tactile experience.

Babies are drawn to **contrast images** in the early months. Display the cards about 20-30 cm from your baby as this is the distance the cards will be most clear. Adapt the distance, if you feel it is too far for the baby.

- Integrate *simple* black & white cards and more *complex* colourful contrasting images until 12 months. Ensure red, yellow, blue are present.

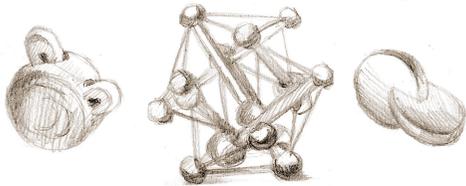
Perfect for tummy time (strengthen the core) and baby's vision (stimulate the optic nerve).

**Careful!** These are for display only, under parental supervision. By now your baby is grabbing and mouthing, keep the cards at a safe distance (e.g., hanging).

Traditional **rattles** with different fillings - sound- and noise-making toys. Ensure they are lightweight and thin enough for tiny hands to generate noises easily and accomplish a whole hand grasp.

- Your baby moves his/her arm, a rattle produces a gentle sound, the baby moves his/her eyes, then the head to follow: connecting movement of objects to their sound sources. The rattling is being tracked with eyes (at about 4 months).
- Here you go – your baby's first math skills: shake a rattle in a rhythm with different patterns, e.g. "shake, shake, pause", and pretty soon, your little one will be recognising a number of shakes they are hearing.
- Each time babies elicit a jingle from a rattle, they learn about cause and effect (closer to 4 months).

## BABY ESSENTIALS 4-8 (Part 2)



**Fidget toys** facilitate both “hands in action”. While learning hand-to-hand transfer, it engages the left and right hemispheres of the brain and improves a cross-body coordination:

- Holding such toys by 4 months is a big accomplishment
- With regular practice, skill formation becomes visible between 5-7 months
- Foundation for self-dressing, eating with utensils, pre-writing skills.

Be it a Skwish, a Peek-a-Boo Roller or interlocking disks, your baby learns to **swipe, slide, pull, press**, by involving fingers and building up new motor skills.

*Example:* the Skwish provides a captivating experience, your baby slides the wooden beads back and forth along the dowels generating gentle rattling sounds and by pressing the toy, it bounces back thanks to its elastic cords.



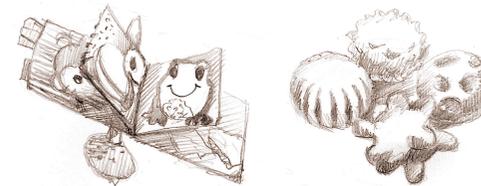
Motion stimulators – **reach, grab, push, roll, crawl**... Introduce:

- At 4-6 months – during tummy time
- At 6-8 months – while learning to sit

Traditional **tumblers** delight babies while wobbling; they are good motivators to practice “pushing” and learn about nature of movement.

**Rolling bells/toys** are fascinating tools to encourage your baby to crawl:

- “Reach, grab and roll things” is a milestone a baby needs to meet
- The rolling motion entices your baby to crawl after it, and the bells’ rolling sound or wood-clinking noises awakens an auditory sense and curiosity
- Ensure the toys do not roll too far to prevent your baby’s frustration

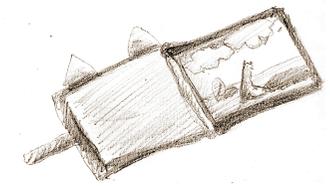


Consider a set of **soft tactile books**: different themes with a variety of sensory elements and sounds.

- Builds quick connections between seeing+feeling, seeing+hearing, seeing+feeling+hearing.
- Provides auditory & sensory stimulation
- Teaches a skill to **flip** pages
- One book may have: crinkly paper, soft & rough materials, a ring rattles, a silicon teether, squeaking buttons and bright illustrations

A set of **sensory balls** is another must have: made of various materials (ex. cotton, silicon), colourful, with embroidery and lightweight.

- Rolling a ball back and forth introduces how spheres move
- Your baby learns to grasp, roll and **throw**



In addition to small **wooden board books, looking at and flipping** something in a **photo book**... is a unique way to introduce new concepts in a personalised and sustainable way:

- You select new images and rotate them how you want it. Closer to age of 2-3 years, you can print out more complex images related to your theme activities.

*Example:* “Bees” - print out all related illustrations (a beehive, bees, honey, flowers, etc.) and integrate them into visual learning activities.

- It is beneficial to show photos of relatives and important people for your family, representation of your values, objects, etc. Anything you wish

**Careful!** The bigger your baby gets now, the more and more toys will have smaller parts. Playing with these smaller parts would typically benefit improvement of fine motor skills. However, CONSISTENTLY inspect and analyse details of toys before offering them to your child (despite their official certificates).

## BABY ESSENTIALS 8-12 (Part 1)

Your baby is getting more curious – experimenting, investigating and even trying to solve problems! Attention span is short - 2-3 minutes per activity! Ensure you have enough entertainment!

Provide an enabling environment for your baby.

Switch from usualness to novelty regularly – diversify your predictable environment(s).

Do not overwhelm your little one with toys and objects, pace them out in order to provide more time for exploration.

**Babies need to:** grasp, shake, hold, transfer, kick, squeeze, swipe, push, pull, pick, reach out, listen to, look at, **stack, bang, insert, sort, turn pages, roll a ball, throw, find hidden, crawl a lot, point**

**Age-appropriate toys:** rattles, large rings, teething toys, mobiles, complex black & white & colourful visuals, unbreakable mirrors, crinkly paper, fidget toys, rolling bells, tumblers, textured balls, soft materials/comforters, **stacking toys, building blocks, a drum, a hammer/pounding toy, first puzzles, a ball-drop toy, shape-sorting boxes, books, targets to reach crawling, peg & palmar blocks**

**Do not forget about:** safe everyday objects to explore and investigate

**Minimise:** electronics and musical overstimulation

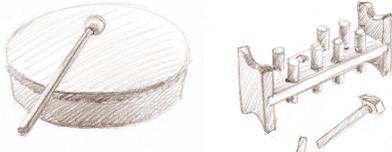
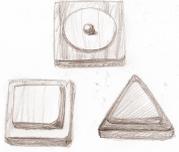
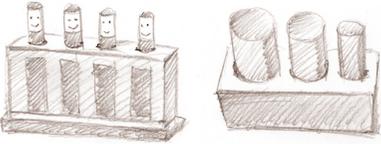
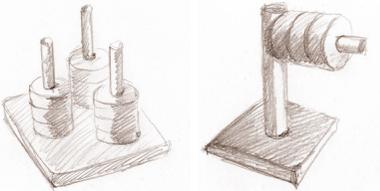
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- Make a plan. Ensure regular daily/weekly rotation of toys/objects and stay consistent with your choice.
- Your collection of toys and playful things extends gradually, from 0 to 12 months. As of 12 months, start removing outgrown toys and keep expanding with age-appropriate tools.

- By about 8 months a baby can **sit** by him(her)self. Some babies can even stand without assistance.
- Create 2-3 sets of **treasure boxes** with different safe/big-enough objects (from household, toys). Rotate them regularly:
  - promote first true independent play
  - heighten senses of curiosity and exploration
  - provide rich tactile experiences (via touching, mouthing)
  - consider grouping 2-3 types of objects (ex., 2-3 spoons, wooden, silicone; 2-3 medium stones in different colours; 2-3 balls made of wool, silicone, fuzzy texture, etc.)
- Install/place **attractive targets** in forms of toys/objects to motivate your baby to crawl and reach them.
- By 9 months babies start **clapping** hands, **banging** 2 objects against each other;
- Babies learn **object permanence** (just because an object temporarily disappeared off-sight, it may still be there, Piaget's Theory), via:
  - finding hidden items
  - putting things in and out of containers
- A baby progresses in **grasp techniques**:
  - From a raking grasp (confident by 8-9 months) to a mature pincer grasp (by 12 months);
  - index fingers become stronger and more isolated in use by 12 months. They will be the key communication tools for your child to press, touch, express wishes by pointing at and asking about objects around;
  - Thumbs' dexterity increases
- By 12 months **visual discrimination** by shape and size is reached (ex., single puzzles, stacking pegs)

**Note:** children are different and have their own pace to reach milestones within 8-18 months. Just ensure that you, as a caregiver, provide as many **diversified experiences** for learning as possible.

## BABY ESSENTIALS 8-12 (Part 2)

	<ul style="list-style-type: none"> <li>• Nesting cups &amp; stacking cubes (build a tower of 3 by 18 months)</li> <li>• Help to coordinate hand-to-hand transfer</li> <li>• Develop early spatial relations skills</li> </ul>		<ul style="list-style-type: none"> <li>• Train a wider grip with rattles/objects, heavier in weight</li> <li>• Keep practicing on releasing an object upon demand</li> </ul>
<ul style="list-style-type: none"> <li>• A drum &amp; a hammering toy</li> <li>• Develop physical strength, hand-eye coordination; a sense of rhythm</li> </ul>		<ul style="list-style-type: none"> <li>• First puzzles with knobs (perfect for a pincer grasp) and without knobs</li> <li>• Learning first 3-5 single shapes (start with a circle, square, triangle, etc.)</li> </ul>	
	<ul style="list-style-type: none"> <li>• Peg &amp; palmar-grasp blocks, varying from smaller to bigger cylinders is perfect</li> <li>• Improve concentration, fine motor skills. Kids are fascinated!</li> </ul>		<ul style="list-style-type: none"> <li>• A ball-drop toy effective to learn about object permanence</li> <li>• Promote hand-to-hand transfer, strength</li> <li>• Extend attention span</li> </ul>
<ul style="list-style-type: none"> <li>• Rings on poles to slide on, vertically &amp; horizontally</li> <li>• Train precision and hand-eye coordination</li> </ul>		<ul style="list-style-type: none"> <li>• Shape sorting boxes</li> <li>• Place in and take out medium-sized objects/blocks into/out of a box</li> </ul>	
<p>↑↑↑ accumulative fundamentals to Baby Essentials 8-12 ↑↑↑</p>			
			
<p><b>Baby 0-4 Essentials (see above p.1)</b></p>		<p><b>Baby 4-8 Essentials (see above p. 2-3)</b></p>	

**Side note:** NeuroToys designs these conceptual frameworks as a visual guide capturing varieties of functions and characteristics in toys available in the market to date. Of course, you do not need to buy all of the toys. Yet, we encourage you to systematically reflect on these toys' different features together with milestones that your little one still needs to meet, and see how tools and textures present in your household could safely benefit your child's brain development on a daily basis, without overspending the family budget. The less is more - definitely works here ☺.