

Early Development Kit

for infants with vision impairment

Vision develops naturally through the first years of life as infants use their vision successfully to explore and understand their environment. The best early visual stimulation is to help make things around the child **VISIBLE**. Too often when a baby is diagnosed with vision impairment, parents are advised to “show the child moving lights” to stimulate vision development.

Products that stimulate the use and development of vision in infancy should always consider the overall developmental goals of the infant's age. This kit was developed as a package to help infants with vision impairment achieve major developmental milestones through the first year of life. Vision development is supported by using materials that are attractive and easy for them to see, and by providing a tactile element to all visual contours so that they start to understand what they are seeing, even if the image is not very clear. The toys are attractive and useful to all babies and stay a favorite through the first 2 years of life. A set comprises of 5 items – Play mat, Face Puppet, Glove Puppet, Easy Hold Ball, and Baby Doll.



Play mat: made of soft, towel material and given a high contrast border, the play mat incorporates different elements likely to catch the infant's eye across the range of eye conditions that can impair infant vision. It serves at the same time as a way of assessment of visual interest and ability and as a way to *develop visual*

exploration. Carrying the cloth everywhere with the baby, helps a baby with vision impairment feel secure especially in new places. Teach the baby *to roll* and reach their favourite square or place the baby on his tummy, his hands on the pattern squares. As he *explores visually and with his little hands*, he learns to *hold his head up*.

Face puppet: *attention and interest to faces* and a *growing attention to the distant environment* are key milestones that drive social, emotional and motor development. Visual attention is easily attracted with the broad stripes on one side and then held with the face on the other. The high contrast edges are stitched allowing the infant to touch and confirm the possibly hazy visual information - a key step in helping the infant learn to make sense of the world visually. Sing little songs about the body parts as you touch the eyes, nose and mouth on baby, on you and on the puppet.



Glove puppet - the infant should now learn to *recognize smaller object and details*. The



glove comes with a detachable face - a smaller version of the familiar large face. Simple rhymes and songs wearing the glove helps the infant practice sustained visual attention, attention to smaller items, following moving objects and many other visual goals. The white glove has a little velcro patch allowing the adult to provide

required contrast and a non-cluttered background to other toys with which the child likes to play, helping highlight the shape of the toy, as well as details.

Easy hold ball - The ball is a favorite toy with its bold contrasting colors and textures, providing the infant with easy to hold contours to explore. The light ball with infant sized dips and curves, allow the infant to effortlessly *grasp and move* the ball even if their motor skills are not well developed. The ball stays an important toy through the first years. As attention to the more distant environment is developed with the Glove



puppet, we want the infant to start to *move out into space*. Watching the ball roll away, the infant is motivated to move into space and since the cloth ball doesn't roll very far, the infant usually succeeds and is motivated to *reach, scoot and crawl* toward things they see and want. For infants who can't see, add a bell inside the ball, to give an audio clue as it rolls away.

Baby Doll - which infant doesn't enjoy a doll? The high contrast, doll with touchable



features, provide the infant with plenty of opportunities to *explore, examine and compare* and thus practice many key developmental, cognitive and visual goals of infancy. *Playing imaginary games* with the doll is a way for children to develop their imagination and to practice and make sense of all they see around them.

Activities to share with families

Play mat: birth to 3 months should return by 4 months if not achieved

Developmental Goals: Rolling, Holds head steady while lying on tummy

- Use mat for swaddling, keep the border under the hands or visible while carrying
- Roll the mat up until one of the patterned sides; place baby with chest propped on the roll and hands on the patterns
- Place the mat on the bed with the patterned side alone up along a pillow. Lay baby on her side facing the patterns. Encourage reaching to explore the patterns

Face puppet/ glove puppet: 2 to 5 months..... should return by 6 months if not achieved

Developmental Goals: attention to or Look to face; aware of people at greater distance; reach to objects seen

- Come close and cover the face suddenly with the glove. The child should pull it away. If no response, cover child's face and help her use her hands to pull it off
- Come quietly into the room and use the glove to get the child's attention at 1 meter. If not responsive, start at 50 cm and then move back until 1 meter
- Put the little face on the glove and have the child pull it off. Can replace the little face with any toy

Easy Hold Ball: 4 to 8 months..... should return by 9 months if not achieved

Developmental Goals: reach to object seen/ heard; move body toward object seen; hold and release; look for item when it disappears

- Roll the ball slowly and encourage him to reach for and hold ball by grasping a segment
- Roll the ball slowly away from him and encourage him to move toward ball.
- Play "hiding" and see if he will look for ball when it drops off the bed in front of him
- Take turns with the baby, giving him the ball and then asking him to give it to you

Baby Doll: 6 to 9 months..... should return by 12 months if not achieved

Developmental Goals: point to at least one body part (eye/ mouth) on self and doll; point to doll when named; find doll when it is partially covered; pay attention to detail (eye) by touching or poking; copy actions

- Name body parts on the baby and then on the doll, encourage imitation
- Pretend with the doll – one kiss for baby, one for the doll; one sip for the baby, one for the doll; pat the baby, pat the doll – ask baby to copy action
- Play "hiding" and see if baby can search and find the doll among other toys; half covered by a cloth or another toy.
- Point to the doll and have the child follow your pointing finger to find it

Major visual milestones during the first year

1-2 months	Visual curiosity and self-initiated attention to movement, patterns, and faces
	Adult initiated eye contact at or soon after birth
By 3 months	Sustained attention to faces
	Spontaneous social smile in response to smiling faces
	Visual attention to hands
	Attention to things in the environment, following things as they move farther
4 -6 months	Use of hands to explore own hands and feet; holding and mouthing things seen
	Looks easily between a number of visually interesting objects
	Moves self toward objects seen but out of reach
7 – 9 months	Interest in hand movements of others
	Recognizes family members based on facial features (before they speak)
	Emergence of some imitative actions
10 - 12 months	Looks at object at which the adult is pointing
	Knows where to look for familiar things and people
	Negotiates changes in height and surfaces while moving around
	Enjoys and recognizes familiar objects and people in pictures