

# see, hear

In the second of our three-part look at babies' senses, **Sue Gascoyne** focuses on the eyes and ears...

In the last issue of *Teach Nursery*, I introduced the importance of the senses for baby's development and learning, beginning our tour with a focus on smell and taste. Now I'd like to turn your attention to probably the most important of our external senses: vision and hearing.

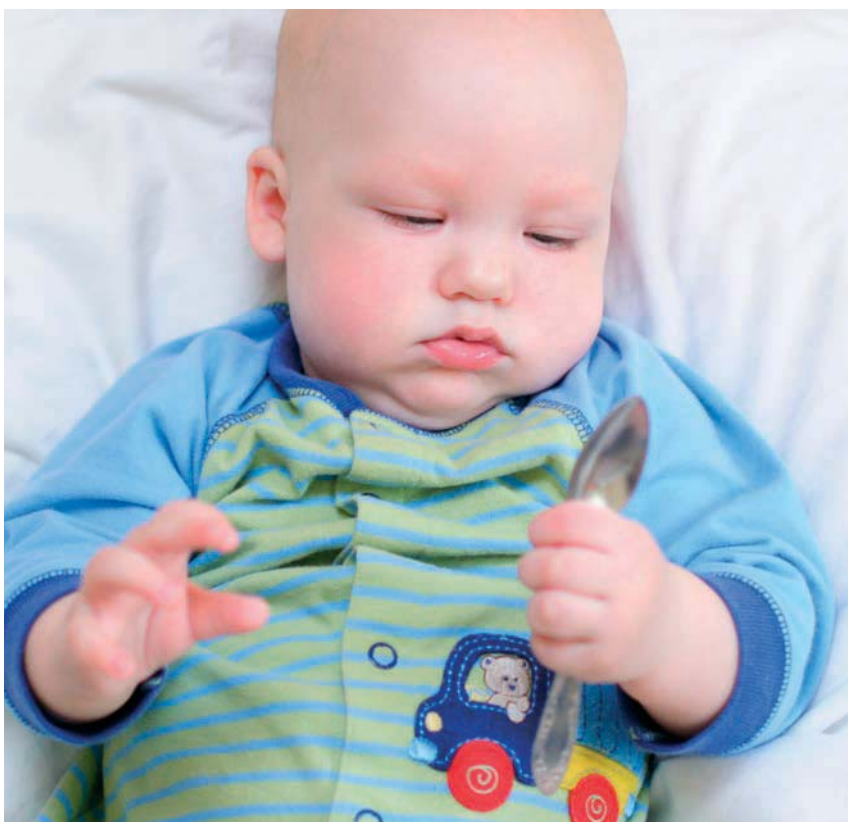
## Sight

Although not fully developed at birth, our vision – from the eyes, optic nerves and visual cortex part of the brain – is the most engaged sense, with 80 per cent of all stimulation in the environment being visual. From birth a baby's eyes are ingeniously programmed to focus at just the right distance to maximise emotional bonding with her primary carer whilst feeding. At just 8–9 weeks of age, infants are able to distinguish between even subtle shades of grey, which is why offering black and white resources and environments has limited value and a mix of natural and coloured hues, such as those found in everyday life, should be provided instead. Amazingly, most of the parts of the brain actually used for seeing are activated just by thinking about pictures and places – so it really is worthwhile using your imagination.

Thanks to neuroscience we now understand babies' key milestones much more. At about three to four months of age infants are beginning to reach purposefully for objects as their vision, eye movements and hand-eye coordination synchronise. By six months, their preference has shifted from two-dimensional images to three-dimensional objects, explaining perhaps some of the appeal of a Treasure Basket (see activity ideas).

## Hearing

From birth, infants' sense of hearing is closely linked to survival, and the primitive reflexes that we are born with, like the startle or Moro reflex, are evident when babies hear a sudden noise. We know that babies' sense of hearing is well developed even before birth, as research has revealed newborns' preference for noises and voices heard in the womb. This also confirms



that unborn babies are able to remember uterine experiences. In days gone by the sounds and smells of washday and baking ensured that auditory memories were stored in childhood memories. With modern conveniences replacing many of these traditions, and the background noise of traffic, television or radio commonplace, it is all the more important for babies and young children to be offered ample opportunities for forging auditory memories.

## Activity ideas

If you'd like to give babies' sight and hearing a sensory workout, here are some simple ideas to try:

### Seeing sense

Most toys stimulate vision (and to a lesser extent hearing), but often this is at the expense of our other senses. Gather a selection of sensory-rich natural and household objects in a sturdy wicker container to create a Treasure

Basket. Each object should be picked with safety, sensory appeal and interest in mind, and be suitable for child-sized hands (check carefully to avoid sharp edges and items small enough to cause a choking hazard). Select things with a mix of textures, colour, pattern, transparency, size and weight to provide a visual and multi-sensory feast. Ensure that babies or young children are installed comfortably and safely on the floor with the basket, and sit nearby to watch them explore and play without interrupting or directing what they are doing. Research has revealed that many children prefer metal objects, possibly due to their noise, coolness or shininess, so observe carefully to see if you can spot any preferences.

## Tuning in

Use a Treasure Basket or gather a collection of non-musical instruments, e.g. recycled pots or bottles filled with seeds or rice, small saucepans, wooden and metal spoons, and watch babies and young children engage in spontaneous music-making. Use them to explore cause and effect, pitch, rhythm and tempo, or to bring storytelling to life. Offer older babies some Treasure Basket objects with dry sand or a mix of sand, dried couscous and rice. This adds appeal, encourages concentration and calm play, and offers opportunities for exploring problem-solving and sounds.

## find out more

Sue Gascoyne is an author, early years researcher, educational consultant and trainer. She launched multi award-winning children's play resource company Play to Z in 2006. Sue's latest book, *Treasure Baskets and Beyond – Realizing the Potential of Sensory-Rich Play* will be available from Open University Press in August 2012.