Although basically helpless, newborn babies are able to do many things besides cry. There are times when they sleep and times when they are awake. They can move their arms, legs and head. They can stretch, yawn, hiccup, sneeze and make many other movements. They are also able to receive a certain amount of information from the world around them through their senses – sight, hearing, taste, smell and touch.

MOVEMENTS

Babies display a number of movements called reflexes or reflex actions. Movements of this kind are inborn and made automatically without thinking. The diagrams illustrate five reflexes shown by newborn babies.

Sucking reflex (A)
When anything is put in the mouth, the baby immediately sucks. Some babies even make their fingers sore by sucking them while still in the uterus.

Rooting reflex (B)
When gently touched on the cheek, the baby’s head turns as if in search of its mother’s nipple.

Grasp reflex (C)
When an object is put in the baby hand, it is automatically grasped.

Walking reflex (D)
When held upright with the feet touching a hard surface, the baby will make walking movements.
Startle (Moro) reflex (E)
When the baby feels it is falling, the arms are flung back with the hands open, the arms are then together as if to clutch hold of something.

Some of these reflexes are necessary for a baby to survive, for example, sucking. Others might have been more useful at an earlier stage of human evolution. For example, it is thought that the grasp reflex dates back millions of years to the time when our ancestors lived in trees. Grasping would have enabled the young animal to cling to its mother's fur or to a branch of a tree.

These reflexes mainly disappear by the age of 3 months and are replaced by actions which the baby has to learn. For example, the walking reflex disappears long before the baby learns to walk.

THE SENSES

Sight
Newborn babies are able to see. Their eyes can focus at a distance of about 20 cm, so they are short-sighted. They see most clearly those things which are near to them, for example, the mother's face when she is holding or feeding her baby. They also notice brightness, e.g. they will look towards a brightly lit window, or shut their eyes when a bright light is suddenly turned on. Sight is discussed in Topic 30.

Hearing
Newborn babies can hear. They respond to sounds by blinking, jerking their limbs, or drawing in breath. They may stop feeding at the sound of a sudden noise. If crying, a baby may become quiet and appear to listen when someone speaks to her, and soon learns to recognise her mother's voice. Hearing is discussed further in Topic 31.

Smell and taste
Babies are sensitive to smell and taste. An unpleasant smell makes a baby turn her head away. The baby will also indicate if she finds a taste pleasant or unpleasant. When near her mother's breast, she smells the milk and may try to get her mouth to it.

Touch
New babies are sensitive to touch and pain and change of position. They will cry if the bath water is too hot or too cold. They will be comforted by contact with another human being, as happens when they are held close and cuddled.

SLEEP
Many newborn babies spend most of their time asleep, waking at intervals to be fed. The amount of sleep varies from baby to baby, and often from day to day. Some sleep 20 out of 24 hours, whilst others spend much more time awake. It is impossible to say how long a baby should sleep at any one time. It could be for five hours, or perhaps only for an hour.

Very young babies cannot help falling off to sleep, and it can be difficult or impossible to wake them. But by 9 months old, sleep has become more of a voluntary process, and they have some control over whether they stay awake or not.
Pattern of sleep
At first, newborn babies do not have a regular pattern of sleep. Gradually, as they become aware of daylight and the sounds of movement around them, sleep starts to fall into a pattern. They begin to sleep less during the day and more at night, although some babies decide that night-time begins at 10 p.m. or later. Many babies are sleeping through the night by the age of 3 months. They will still have one or more naps during the day, and may continue to need sleep in the daytime for several years.

Sleeping position
It is recommended that young babies are placed on their backs for sleeping and with their feet close to the foot of the cot (see p. 116). The sleeping position is only important until babies are able to turn over and move around in the cot. They can then take whichever position they choose.

COT DEATH (SUDDEN INFANT DEATH SYNDROME; SIDS)
Cot death is the sudden and unexpected death of an infant for no apparent reason. Fortunately cot deaths are rare and, since recommendations to reduce the risk in 1991, cot deaths have been reduced by 75 per cent. These recommendations are:
- **Lay babies on their backs to sleep.** Babies put to sleep face downwards are more at risk of cot death. Pillows are not recommended.
- **Place the baby with their feet to the foot of the cot.** The baby cannot then wriggle down under the covers.
- **Keep babies away from tobacco smoke.** Babies whose parents smoke before and after birth are more at risk of cot death.
- **Do not let babies become too hot** with a room temperature that is too high (see p. 76) or too much bedding or clothing. Ensure that the baby’s head remains uncovered while sleeping.
- **Breast-feed if possible,** because breast milk contains antibodies which help to protect the baby against infections.
- **Seek medical advice** quickly if the baby seems unwell.
Questions

1 a What is the name given to movements which are inborn and automatic?
   b Name five such movements shown by newborn babies.
2 a Name the five senses.
   b For each of these senses, give an example which indicates that it is already functioning in a newborn baby.
3 a How much time does a newborn baby spend asleep?
   b Does a newborn baby have a regular pattern of sleeping?
   c By what age is a baby likely to (i) be sleeping through the night, (ii) have some control over whether she sleeps or stays awake?
4 a (i) Which is the recommended sleeping position for young babies? (ii) Why should babies not be placed on their fronts for sleeping?
   b What other advice is given to help reduce the risk of cot death?
   c What does the acronym SIDS stand for?

Further activities

Extension

1 What is a newborn baby able to do? Make a list of as many things as you can think of. Add drawings or photographs to show some of these.

2 A reflex action can be defined as an automatic response to a stimulus. Continue the table below, describing the reflexes mentioned in this topic.

<table>
<thead>
<tr>
<th>Reflex action</th>
<th>Stimulus (cause of movement)</th>
<th>Response (movement which follows)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grasp reflex</td>
<td>Something is placed in the hand</td>
<td>It is automatically grasped</td>
</tr>
</tbody>
</table>

Investigation

Record the sleep patterns of one or more babies and/or young children over several weeks. Present the information as a diagram and compare it to information in another source such as a textbook.

Child study

Find an opportunity to look at a very young baby. Describe the appearance and movements of the baby. If possible, compare this baby with other babies of about the same age.