Preparing a kitten to cope with the challenges he will be faced with throughout his life has a huge impact on his lifelong welfare. While we know that cat behaviour is influenced by a variety of different factors including genetics and specific learning experiences, there is a complex interplay between nature and nurture.

In order to understand the behaviour and needs of today’s pet cat, it is helpful to explore his wild origins. Today’s domestic cat shares common ancestry with the African wildcat, a shy animal originating in the Middle East sharing many physical similarities with our domestic cat and still found in the dry Savannah today. Following birth, being vulnerable themselves to predation, kittens need to quickly learn what is safe and normal in their environment.

**Socialisation period**

The experiences kittens have within their first two months of life are important in influencing their behaviour right into and through adulthood. During this early period, often known as the ‘socialisation period’, kittens learn what aspects of their environment are ‘normal’ and ‘safe’ so that everything that they come across during this period is likely to be accepted as something that is ‘okay’ later in life. This typically happens in the safe core environment of the nest and its immediate vicinity. Equally, anything that they do not come across during this period is much more likely to produce a fear response in adulthood. The greater the variety of positive experiences they have during this time, the more likely they are to cope with novel experiences in the future.

The socialisation periods can vary between different species – for example – the window of opportunity may be slightly longer in dogs – and socialisation should be species specific. Studies have indicated that the socialisation period in cats has been identified as being between two and seven weeks of age. During this time, the kitten’s brain and sensory system are still developing and the stimuli he encounters influence how this development occurs.

As cats do not have an inbuilt ‘need’ to be with people – tolerance of and desire to be around people being a learned behaviour – early handling by a variety of people during this time is essential in order to socialise kittens with humans. The onset of a fear response or hazard avoidance response is six weeks in kittens. It is extremely difficult to socialise
The experiences kittens have within their first two months of life are important in influencing their behaviour right into and through adulthood.

Those which have had no human contact after weaning and almost impossible after they reach sexual maturity. While feral kittens can be brought into a home environment before the onset of fear becomes established, it is worth bearing in mind that genetic influence from the parents and learned responses before coming into human contact will play a role in the friendliness of the kitten in adulthood. In the interests of welfare, it is perhaps best that feral kittens found after weaning are trapped, neutered and returned to their colony.

**Kitten socialisation programme**

Being born into and/or raised in a rescue setting can present a unique challenge as the ‘unusual’ environment – compared with the ‘usual’ domestic setting – may be considered ‘normal’ by these kittens. Cats Protection (CP) has a structured kitten socialisation programme developed by Dr Rachel Casey as part of her CP-funded lectureship at the University of Bristol to address these challenges and prepare kittens with a variety of experiences they may encounter later in life. The programme enables staff and volunteers to introduce and repeat various positive experiences throughout the socialisation period of the kitten.

**Ensuring healthy kittens**

Before beginning to socialise a litter, an understanding of feline infectious disease transmission and appropriate strict hygiene measures are crucial in order to ensure good health and welfare as kittens are particularly vulnerable. In the rescue environment, this is vital as there are commonly a large number of different litters originating from a variety of sources with unknown disease risk and carrier status. Infectious disease control measures include consistently washing hands before and after handling sessions with an appropriate antibacterial skin disinfectant, wearing personal protective equipment such as disposable gloves, aprons and shoe covers to prevent transmission and only interacting with one litter per handling session to prevent spreading infectious diseases between litters.

**Socialisation tips**

Before handling the kittens, it is worth spending time with the queen to ensure that she is familiar with the handler through positive associations of gentle interaction. One of the most important points to remember about kitten socialisation is the experiences and interactions must be positive for each kitten, as negative experiences can be just as damaging as no experiences. Handling, for example, should be gradually introduced at two weeks of age by gently stroking the kitten and picking him up very briefly before returning him to his...
mother and/or the rest of the litter. The time spent handling the kitten can be gradually increased over successive weeks. Ideally, handling should be carried out by a minimum of four people, including men, women, children and older people. Studies have shown that as little as 40 minutes handling a day during the socialisation period has a profound effect on the friendliness of kittens and their willingness to approach. In addition to holding the kittens, gently performing health checks such as examining sensitive areas like the ears, feet and tail will prove invaluable later in life when the cat attends the vet practice.

**Social referencing**

Whereas ‘socialisation’ generally refers to animals getting used to people and/or other animals (animate stimuli) another essential aspect of the programme is habituating the kittens to inanimate stimuli such as a variety of novel objects and household sounds. This process is known as ‘social referencing’. Social referencing should include experiences that involve all the kitten’s senses. For example:

- provide a variety of safe floor textures for the kitten to walk on
- different scents can be collected on a clean cloth by, for example, rubbing it on a healthy, friendly vaccinated dog
- provide a variety of new objects in different shapes and sizes that can be investigated
- novel sounds can be provided by placing kitten socialisation CDs of common household sounds such as washing machines and vacuum cleaners
- during weaning, provide solid food of a variety of flavours

**Why is kitten socialisation so important?**

In short, early handling produces friendlier kittens. S McCune’s study from 1995 showed that this is important for the kittens’ welfare as, one year on, socialised kittens showed relaxed behaviour when approached by an unfamiliar person. In comparison, unsocialised kittens showed signs of distress in the same situation. It is therefore crucial that cats intended for life as companion animals in the domestic environment are given ample opportunity for sufficient socialisation between the ages of two and seven weeks of age.

In addition to improving kitten welfare, another benefit of kitten socialisation is the effect it has on increasing the owner-cat bond. A study by Dr Casey in 2008 revealed that owners of adequately socialised kittens reported significantly higher emotional support from their cat approximately 10 months after homing. Owners also reported that the socialised kittens showed far fewer fear responses towards people. This is particularly important for the rescue and rehoming charity sector, as owners that are well bonded to their cats may be less likely to give them up and so socialising kittens could reduce the number of relinquished and returned cats.

Gentle positive handling during the socialisation period may also facilitate future veterinary examinations. Although there is some individual variation, the critical socialisation period appears to spontaneously come to an end at about seven weeks of age and so the responsibility for socialising kittens during that narrow window of opportunity lies predominately with the breeder or rescue charity. While it’s too late to start socialisation once a kitten is homed, it is helpful to encourage owners to continue the socialising and social referencing process with positive experiences.

**Nicky Trevorrow, RVN, BSc (Hons), PG Dip(CABC)**

Nicky holds a BSc (Hons) degree in Animal Behaviour from Anglia Ruskin University in Cambridge. She undertook the Advanced Diploma in Companion Animal Behaviour Therapy from the Centre of Applied Pet Ethology (COAPE) followed by a postgraduate diploma in Companion Animal Behaviour Counselling from the University of Southampton. On completion of her degree, Nicky managed a boarding cattery in Wimborne. She then travelled around the world gaining volunteering experience, ranging from Thailand’s stray cats and dogs to koalas in Australia. Nicky is also a qualified registered veterinary nurse and has worked in several small animal practices in Bournemouth and Poole. Nicky joined CP in the post of Behaviour Manager in 2010. She has a varied role as feline behaviour affects all aspects of the charity’s work and has developed the CP behaviour strategy to promote and raise awareness of feline behaviour and welfare. She is also a member of the FAB’s expert behaviour panel and represents CP on the Animal Behaviour and Training Council (ABTC).