

RSHE Elements of the National Science Curriculum

Key Stage 1 (age 5-7 years)

Year 1 pupils should be taught to:

- identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense

Year 2 pupils should be taught to:

- notice that animals, including humans, have offspring which grow into adults
- describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene

Notes and guidance

They should also be introduced to the processes of reproduction and growth in animals. The focus at this stage should be on questions that help pupils to recognise growth; they should not be expected to understand how reproduction occurs.

The following examples might be used: egg, chick, chicken; egg, caterpillar, pupa, butterfly; spawn, tadpole, frog; lamb, sheep. Growing into adults can include reference to baby, toddler, child, teenager, adult.

Key Stage 2 (age 7-11 years)

Year 5 pupils should be taught to:

- describe the life process of reproduction in some plants and animals
- describe the changes as humans develop to old age

Notes and guidance

Pupils should find out about different types of reproduction, including sexual and asexual reproduction in plants, and sexual reproduction in animals.

They might try to grow new plants from different parts of the parent plant, for example, seeds, stem and root cuttings, tubers, bulbs. They might observe changes in an animal over a period of time (for example, by hatching and rearing chicks), comparing how different animals reproduce and grow.

Pupils should draw a timeline to indicate stages in the growth and development of humans. They should learn about the changes experienced in puberty. Pupils could work scientifically by researching the gestation periods of other animals and comparing them with humans; by finding out and recording the length and mass of a baby as it grows.

Year 6 pupils should be taught to:

- recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents

- recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function

Notes and guidance

Pupils should learn how to keep their bodies healthy and how their bodies might be damaged - including how some drugs and other substances can be harmful to the human body.

They should be introduced to the idea that characteristics are passed from parents to their offspring, for instance by considering different breeds of dogs, and what happens when, for example, Labradors are crossed with poodles. They should also appreciate that variation in offspring over time can make animals more or less able to survive in particular environments, for example, by exploring how giraffes' necks got longer, or the development of insulating fur on the arctic fox. Pupils might find out about the work of palaeontologists such as Mary Anning and about how Charles Darwin and Alfred Wallace developed their ideas on evolution. Note: At this stage, pupils are not expected to understand how genes and chromosomes work.

'The programmes of study for science are set out year-by-year for key stages 1 and 2. Schools are, however, only required to teach the relevant programme of study by the end of the key stage. Within each key stage, schools therefore have the flexibility to introduce content earlier or later than set out in the programme of study. In addition, schools can introduce key stage content during an earlier key stage if appropriate. All schools are also required to set out their school curriculum for science on a year-by-year basis and make this information available online.'

Department for Education, September 2013