

Joint Policy Statement:

Human development and reproduction in the Primary Curriculum

March 2016

The purpose of this document, produced jointly by the Association of Science Education and the PSHE Association, is to inform teachers, school leaders and governors about what the science curriculum requires in respect to sex education and the vocabulary that supports this teaching and learning. It is intended for teachers to refer to when parents ask questions about the distinction between sex and relationships education (SRE) delivered through PSHE education and the study in science lessons of reproduction and human development. Such learning both boosts children's knowledge of human biology and helps pupils to stay healthy and safe as they grow up. The aim of teaching about this in the primary curriculum is to allow the school and parents to work in partnership to keep children knowledgeable and safe as they grow up.

Human development and reproduction in the Primary Science Curriculum

Science Year 5 Programmes of study

Animals, including humans

Statutory requirements:

- describe the changes as humans develop to old age

Notes and guidance:

Pupils should draw a timeline to indicate changes in the growth and development of humans. They should learn about the changes experienced in puberty.

Living things and their habitats

Statutory requirements:

- describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird
- describe the life processes of reproduction in some plants and animals

Notes and guidance:

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

Recommendation:

Within the Science National Curriculum at Key Stage 2, it is statutory to teach pupils about the changes that occur as humans develop and about sexual reproduction in some plants and animals.

Describing the changes as humans develop must include teaching about puberty, which is a principal change for humans as they develop and grow older.

Pupils need to learn about the physical and emotional changes associated with puberty before they experience them, so that they have the correct information about how to take care of their bodies and keep themselves safe. A joint statement - [Teaching about puberty](#) - has been produced by the Association of Science Education and the PSHE Association on this matter.

Puberty is about developing sexual maturity and the ability to reproduce, which for humans is sexual reproduction. The curriculum does not specify which animals to use in learning about sexual reproduction.

In order for pupils to understand the wider impact that these physical and emotional changes will have, not only on their bodies, but also on the decisions they make in their lives, it is important for them to learn about and understand the consequences of sexual activity

Year 5 teachers should cover development to maturity in humans and sexual reproduction in some animals, e.g. mammals (which should include humans), amphibians, insects or birds, to give a broader picture of the variety of life.

Teaching about sexual reproduction within the life cycles of different animals should include:

- the joining of a sperm from the male and an egg from the female to enable an offspring, which has characteristics of both, to grow, (knowledge of cells and genetic material is not required in KS2 science),
- the differences between internal and external fertilisation (although not the mechanics), e.g. in terms of the larger number of eggs and sperm produced in external fertilisation and the greater risks from predators than internally fertilized young.
- viviparous and oviparous species (animals that have live births and those that lay eggs)

Understanding what pregnancy and birth are (in the context of mammals in general) is a key aspect of learning both in terms of classification and for differentiating the life cycles of mammals from egg laying species – part of the progression between Y4 and Y6 classification statements. Knowledge of the process of sexual reproduction, including the passing of inherited characteristics to offspring, will also support pupils in understanding the basics of inheritance and evolution, which is covered in Year 6.

As with all teaching of the Science National Curriculum, correct scientific vocabulary should be taught and its use encouraged. The naming of internal parts and the process of internal fertilisation would be covered in KS3 science, but the correct naming of external parts should be included at KS1 and KS2.

Year 5 is the latest time in the school curriculum when this should be addressed, and may be taught alongside the 'Growing up' unit from the Sex and Relationship Education Scheme of work as part of PSHE education.

Human development and reproduction in PSHE Education

Introduction – Human development and reproduction in PSHE education

In conjunction with the science curriculum that teaches pupils about the physical and biological changes of puberty, an effective SRE programme within PSHE education will provide pupils with the critical knowledge that they need to understand and manage the emotional and physical changes of growing up. A programme that is progressive will, in KS1, talk about change and growth, through the context of growing older - for example, what new things can be done as a child is growing taller. Moving into lower KS2, change will be taught through the context of how growing up brings more responsibility, whilst upper KS2 will deal with physical and emotional changes of puberty, how feelings change in relationships, and conception and reproduction. It is seldom purely the biological changes of growing up that concern pupils, which is why science lessons need to be balanced with SRE as part of PSHE, which deal with the social and emotional elements of growing up.

Therefore, the teaching of sexual reproduction is most effective when organised through a spiral curriculum that revisits themes of healthy relationships, which in turn progress to deeper learning with greater challenges and is supported by a science curriculum which delivers the necessary biological knowledge. Some of the best examples of effective PSHE and SRE programmes and policies are where schools have consulted with parents, carers, governors and the wider community. Consultation and positive engagement of parents and carers is of great importance when schools are planning PSHE and SRE programmes, whilst the role of a school's governing body and head teacher in establishing a school's SRE policy is crucial. Indeed, in their guidance, the government states that *'the governing body, in consultation with parents, will be able to develop policies which reflect the parents' wishes and the community they serve'*. (DfEE, Sex and Relationships education guidance, 2000).

There is no period when pupils go through as much change as they do between reception, infants and their final term of primary school. Therefore, best practice

indicates that schools should teach about relationships from the start of the primary phase. In their statutory guidance, the government recommends that all primary schools should have a sex and relationship education programme tailored to the age and the physical and emotional maturity of the children (DfEE, Sex and Relationships education guidance, 2000). Therefore learning about puberty should be matched to the needs of the pupils and should start before pupils experience the changes themselves. It should therefore be taught from year 4 onwards, given [NHS data about the age of onset of puberty](#) but no later than year 5. Early learning which begins to explore how sexual reproduction applies in their lives would generally take place in Year 6, although this would depend on the needs of the pupils within the school.

Keeping children safe

In order to keep young pupils safe, it is vital that their learning about the social and emotional aspects of sexual reproduction begins in the early stages of primary school. At this time, and throughout the primary phase, pupils will have many different relationships: acquaintances, friends, close friends, 'best friends', distant and close family relations and classmates. Often, there may be some sort of physical contact with some of these people, from handshakes, to holding hands, to hugging, cuddling and kissing. Learning to judge what is appropriate and feels right for themselves and others is a skill that is partly inherent, and partly learnt over time.

A planned, developmental PSHE curriculum which includes SRE is the best way of teaching our pupils about recognising what type of physical contact they and others are comfortable with within their relationships. Further, as part of a PSHE curriculum, SRE is the learning that helps pupils to recognise healthy relationships. It helps them to understand and manage the changes that can happen in and to relationships as they grow up, the new feelings that may come with these relationship changes and how to manage feelings and relationships in order to keep themselves and others they care about healthy and safe.

Younger pupils should learn that their body belongs to them and that they can say who has access to it. This is a key element in a school's approach to safeguarding. Learning to respect boundaries – their own and other people's – helps children to understand the need to obtain consent and that everyone has the right to give or not give their consent for any activity, sexual or otherwise. It is a sad reality that many children of primary age are at risk of abuse and it is critical for their safety that they are educated early in order to keep themselves safe and to seek help if they feel at all threatened. This should be explained to parents/carers in advance of being taught to pupils.

Vocabulary

While schools will make their own decisions in consultation with parents and governors when designing schemes of work in line with their school policy for SRE, it is essential that children learn the correct biological names for the genitalia and reproductive organs. Having the right language to describe all parts of their body – and knowing how to seek help if they are worried or uncomfortable about something and having the vocabulary to describe why they are seeking help – are vital for safeguarding.

In the report *Not Yet Good Enough – personal, social, health and economic education in schools*, Ofsted highlighted research carried out by the Lucy Faithfull Foundation¹ which indicates that '*failure to provide high quality, age-appropriate sex and relationships education may leave young people vulnerable to inappropriate sexual behaviours and exploitation, particularly if they are not taught the appropriate language*'.² Therefore many schools will choose to teach vocabulary for external body parts, including *penis*, *testicles*, *vulva* and *clitoris* from KS1, whilst other schools may choose to teach penis, testicles, vagina and vulva in key stage 1 and introduce vocabulary such as *clitoris* in KS2. As set out above, while education about sexual reproduction may not start until later, the imperative to keep children

¹ For more information on the Lucy Faithfull Foundation go to www.lucyfaithfull.org

² *Not yet good enough – personal, social, health and economic education in schools* May 2013
<https://www.gov.uk/government/publications/not-yet-good-enough-personal-social-health-and-economic-education>

safe from abusive behaviours makes it essential for this language to be introduced early in their schooling.

Whenever schools choose to introduce this vocabulary, it is important that the needs, prior knowledge and maturity of the pupils is taken into account, and that schools work in collaboration with parents and carers who should be made aware of and are introduced to this vocabulary. One way this can be done is for schools to offer SRE parent/carer sessions during which parents and carers can see resources to be used in SRE, discuss and understand teaching approaches and the reasons for teaching specific concepts or vocabulary at a particular point in their child's development.

Being open and honest about the words for genitalia will help to keep all pupils safe and is particularly important for supporting girls at risk of female genital mutilation (FGM). The summer holiday between leaving primary and starting secondary school is a risk period for girls at risk of FGM (and the practice can take place earlier than this) so this knowledge must come in good time. Further information about FGM can be found at: www.nationalfgmcentre.org.uk/ or www.forwarduk.org.uk

Progression and key vocabulary

KS/Year	Science Programme of Study – Statutory requirements	Science Programme of Study – Non statutory notes and Guidance	Vocabulary
Year 1	<p>Pupils should be taught to:</p> <p>Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.</p>	<p><i>Pupils should have plenty of opportunities to learn the names of the main body parts (including head, neck, arms, elbows, legs, knees, face, ears, eyes, hair, mouth, teeth) through games, actions, songs and rhymes.</i></p>	<p>head, neck, arms, elbows, legs, knees, face, ears, eyes, hair, mouth, teeth, penis, testicles, vulva</p>
Year 2	<p>Pupils should be taught to:</p> <p>Notice that animals, including humans, have offspring which grow into adults¹</p> <p>Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.</p> <p>(<i>'Growing into adults' should include reference to baby, toddler, child, teenager, adult</i>)</p>	<p><i>They should also be introduced to the process of reproduction and growth in animals. The focus at this stage should be on helping 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 and adult.</i></p>	<p>baby, toddler, child, teenager, adult</p>
KS/Year	PSHE Association Programme of Study Core Theme 1: Health and Wellbeing	PSHE Association Programme of Study Core Theme 2: Relationships	Vocabulary — see section on Keeping Safe – Vocabulary for further guidance
Key Stage 1	<p>Pupils should have the opportunity to learn:</p> <p>5. about change and loss and the associated feelings (including moving home, losing toys, pets or friends, making new friends, new</p>	<p>Pupils should have the opportunity to learn:</p> <p>1. to communicate their feelings to others, to recognise how others show feelings and how to respond</p> <p>9. to identify their special</p>	<p>Boy, girl, gender, penis, testicles, vulva, pregnant, baby, child, teenager, elderly, life cycle, change,</p>

	<p>baby)</p> <p>8. about the process of growing from young to old and how people's needs change</p> <p>9. about growing and changing and new opportunities and responsibilities that increasing independence may bring</p> <p>10. the names for the main parts of the body (including external genitalia) the similarities and differences between boys and girls</p>	<p>people (family, friends, carers), what makes them special and how special people should care for one another</p> <p>10. to judge what kind of physical contact is acceptable, comfortable, unacceptable and uncomfortable and how to respond (including who to tell and how to tell them)</p>	<p>grow, feelings, love, care, comfortable feeling, uncomfortable feeling</p>
KS/Year	Science Programme of Study – Statutory requirements	Science Programme of Study – Non statutory notes and Guidance	Vocabulary
KS2 Year 3	<p>Pupils should be taught to:</p> <p>explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. *</p> <p>* Children should understand that pollination is the movement of pollen from one flower to another and that a seed is formed when material in the pollen joins with material in the ovule</p>		<p>Pollination, pollen, male, ovule, female, seed</p>
KS/Year	PSHE Association Programme of Study Core Theme 1: Health and Wellbeing	PSHE Association Programme of Study Core Theme 2: Relationships	Vocabulary - see section on Keeping Safe – Vocabulary for further guidance
KS2 Year 3	<p>Pupils should have the opportunity to learn:</p> <p>8. about change, including transitions (between key stages and schools) loss,</p>	<p>Pupils should have the opportunity to learn:</p> <p>2. to recognise what constitutes a positive, healthy relationship and develop the</p>	<p>change, grow, mature, feelings, emotions, excited, up and down,</p>

	<p>separation, divorce and bereavement</p> <p>12. that bacteria and viruses can affect health and that following simple routines can reduce their spread</p> <p>20. About taking care of their body, understanding that they have autonomy and the right to protect their body from inappropriate and unwanted contact</p>	<p>skills to form and maintain positive and healthy relationships</p> <p>4. to be aware of different types of relationship, including those between acquaintances, friends, relatives and families</p> <p>8. to judge what kind of physical contact is acceptable or unacceptable and how to respond</p>	<p>worried, reproductive organs, sperm, egg</p>
KS/Year	Science Programme of Study – Statutory requirements	Science Programme of Study – Non statutory notes and Guidance	Vocabulary
KS2 Year 5	<p>Animals, including humans</p> <p>Pupils should be taught to: describe the changes as humans develop to old age</p> <p>Living things and their habitats</p> <p>Pupils should be taught to:</p> <p>describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird</p> <p>describe the life processes of reproduction in some plants and animals</p>	<p>Pupils should draw a timeline to indicate changes in the growth and development of humans. They should learn about the changes experienced in puberty.</p> <p>Pupils should find out about different types of reproduction, including sexual and asexual reproduction in plants, and sexual reproduction in animals</p>	<p>gestation period, pregnancy, live birth</p> <p>sexual reproduction, sperm, ovum, internal fertilisation, external fertilisation, egg, live birth, gestation period</p>
KS/Year	PSHE Association Programme of Study	PSHE Association Programme of Study	Vocabulary:
	Core Theme 1: Health and Wellbeing	Core Theme 2: Relationships	see section on Keeping Safe – Vocabulary for further guidance
KS2 Year 4/5	<p>Pupils should have the opportunities to learn:</p> <p>18. How their body will, and emotions may, change as</p>	<p>Pupils should have the opportunities to learn:</p> <p>2. to recognise what constitutes a positive, healthy</p>	<p>puberty, change, grow, mature, private parts, genitals, vagina, labia, vulva, clitoris, penis, testicles, breasts, feelings,</p>

	<p>they approach and move through puberty</p> <p>20. About taking care of their body, understanding that they have autonomy and the right to protect their body from inappropriate and unwanted contact</p>	<p>relationship and develop the skills to form and maintain positive and healthy relationships</p> <p>4. to be aware of different types of relationship, including those between acquaintances, friends, relatives and families</p> <p>8. to judge what kind of physical contact is acceptable or unacceptable and how to respond</p>	<p>excited, up and down, attraction, worried, internal, inside, reproductive organs, menstruation, uterus, fallopian tubes, ovary/ovaries, cervix, menstrual cycle, period, blood, discharge, Adam's apple, penis, testicles, scrotum, sperm, semen, erection, ejaculation, wet dream, masturbation, sweat, body odour, sanitary towel, tampon</p>
Year 6	<p>18. How their body will, and emotions may, change as they approach and move through puberty</p> <p>19. about human reproduction</p> <p>20. About taking care of their body, understanding that they have autonomy and the right to protect their body from inappropriate and unwanted contact</p>	<p>2. to recognise what constitutes a positive, healthy relationship and develop the skills to form and maintain positive and healthy relationships</p> <p>4. to be aware of different types of relationship, including those between acquaintances, friends, relatives and families</p> <p>8. to judge what kind of physical contact is acceptable or unacceptable and how to respond</p>	<p>puberty, change, grow, mature, private parts, genitals, , strong feelings, reproductive organs, menstruation, uterus, fallopian tubes, ovary/ovaries, cervix, vagina, labia, clitoris, vulva, penis, testicles, scrotum, sperm, semen, erection, ejaculation, egg, sexual intercourse, conception, embryo, pregnant, birth, contraception, condom, consent</p>