

DARTON HIGH SCHOOL Policy on Sex Education (Revised October 2009)

Context

We aim to help our young people by ensuring that they have an entitlement to sex and relationship education within the curriculum. We take a pro-active role and believe that sex and relationships education is an essential part of the personal, social and health education of each young person. This policy links with several other school policy documents including behaviour, health and safety, medicines, confidentiality, healthy schools, school visits and child protection.

The policy has been written in accordance with the DFES guidance 0116/2000.

Consultation

This policy has been developed in consultation with the following: PSHE/Citizenship co-ordinator, pupils through the School Council, a small group of parents, school nurse. Any update on the policy will be circulated to these parties for approval.

What is sex and relationship education?

It is lifelong learning about physical, moral and emotional development. It is about the understanding of the importance of family life, of stable and loving relationships, of respect, love and care. It is also about the teaching of sex, sexuality, and sexual health. It is not about the promotion of sexual orientation or sexual activity – this would be inappropriate teaching.

Aims and Objectives

It should enable young people to:

- Prepare for change
- Improve their self-esteem
- Make informed choices and decisions
- Learn about contraception, safer sex, STIs and support services available in the local area
- Recognise personal skills and qualities in themselves and others
- Understand the arguments for delaying sexual activity
- Maintain and develop relationships
- Develop personal initiative and be able to take responsibility in relationship to sexual activity and parenthood
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- Learn about peer pressure and risk taking behaviour
- Learn about how the law applies to sexual relationships
- Develop self-confidence
- Communicate effectively
- Develop skills in negotiation, assertiveness in appropriate situations to avoid exploitation and accessing support
- Be aware of and understand sexuality
- Develop respect and tolerance for self and others
- Understand and manage emotions

These aims correspond closely with those for personal, social and health education as well as citizenship.

The Delivery and Organisation

These aims are fulfilled through aspects of the young persons experiences both in the formal and informal curriculum.

Sex and relationship education is delivered at various times throughout the 5 years a young person is at school. The majority of the work is done in PHSE/Citizenship, which is a timetabled 1hour lesson each week. In addition appropriate discussions take place in other subjects, especially English, RE and Drama. However some aspects of sex and relationship education are also undertaken within science and other lessons. The content of sex and relationship education is currently under development and will be updated shortly to fully address the aims and objectives.

SRE topics and issues are also addressed using outside agencies on Citizenship Days and within lessons. The use of Theatre groups is utilized whenever appropriate.

The SEN Co-ordinator and Learning Mentors will be consulted regarding the adaptation of resources, classroom support and checking the understanding of learners where appropriate.

Citizenship

KS3

- Year7
 - Puberty - physical and emotional
 - Reproduction
- Year 8
 - Gender issues
 - Contraception and STIs
 - Relationships - moving from friendships to dating
- Year 9
 - Contraception
 - How to use a condom
 - STIs
 - Reasons for delaying sex
 - Services
 - HIV

KS4

- Year 10
 - Links between sex and alcohol
 - Teenage pregnancy
 - Family planning
 - Negotiating safer sex
 - Sexuality
 - Challenging prejudice
 - HIV
- Year 11
 - Managing relationships
 - Managing risks
 - Decision making
 - Parenthood

Certain topics are also covered in science both at KS3 and KS4, see attached.

Schemes of work for both Citizenship/PHSE and Science indicating specifically the sex and relationships education elements are available in school.

Mr Maltby is responsible for Citizenship/ PHSE (which includes Sex and Relationship Education). Mrs Allen is responsible for Science.

Confidentiality

Within the school an ethos will be encouraged that enables young people to feel confident enough to discuss any problem or concern with staff. We will deal with such matters in a professional and caring way.

It will be important that those delivering Sex and Relationship Education set out a basic set of ground rules by which issues can be discussed but personal information (both student and staff) is not revealed.

Young people need to feel able to talk in confidence to a member of staff about their health and the welfare of young people will always be central to our policy and practice. However, teachers cannot promise not to disclose matters revealed to them by students and this restriction will be discussed with pupils in lessons. A teacher who feels that a student is at risk will consult with an appropriate senior member of staff. If there is a child protection issue then the senior member of staff responsible for this will be informed.

At present Mr Bisley is the school's Child Protection Officer. The school will seek to provide appropriate advice and support. Teenage pregnancy is dealt with in accordance with the teenage pregnancy referral pathway.

Health professionals working within school are bound by their own professional codes of conduct when working in a one to one situation with individual pupils. However, in a classroom situation they should follow the school's confidentiality policy.

The school nurse operates a drop in session on each Tuesday in the week during the lunch hour for students concerned with sexual health issues.

Staff

It is an offence for a teacher, or other person in a position of trust, to have a sexual relationship with a full time pupil who is under the age of 18 in the same school.

Dissemination of the Policy

The policy will be part of the school prospectus and is available to:

- All pupils and their parents
- New pupils and their parents
- School Nurse
- All staff and support staff

Training and Support

The school is committed to ensuring that the teachers, non-teaching staff, governors, parents and surrounding community have access to information and training on the contents of this policy. This will be in parallel to the supportive processes available for everyone involved in the management of this policy.

Staff responsible for the delivery of SRE will have the opportunity and resources to ensure they are kept up to date regarding local teenage pregnancy and STI issues.

The school has and will continue to develop a resource library of teaching and information materials that staff can access. However it is important that these materials are used in a considered and planned approach in line with this policy.

Parents

It is vital that the school works in partnership with parents. This is essential to effective sex and relationship education.

Parents have the right to withdraw their child from sex and relationship education except for the parts included in the statutory National Curriculum.

Any parent concerned about their child's health including sexual behaviour, should feel able to contact the school for support.

Responsibility

It is the responsibility of all staff to implement this policy.

Sex and relationship education will be co-ordinated by the Citizenship/PHSE Co-ordinator (currently Mr Maltby).

The governors will provide support for the policy and monitor its implementation.

Procedures for Monitoring and Evaluation

The school is committed to monitoring and evaluating the effectiveness of the Sex and Relationship Education Programme.

The School Council and the board of governors upon review will ratify the policy. A named member of the board of governors will have designated responsibility for the SRE policy. **(This will be decided when the policy is taken to the board)**

This review will take place annually and will be initiated by the Citizenship/PHSE Co-ordinator.

The evaluation will involve making judgement using the following criteria:

- A pre and post-self assessment sheet for pupils
- The co-ordinator will regularly monitor samples of student work
- The co-ordinator will have a schedule of lesson observations and the team will evaluate these on a regular basis
- Feedback from staff
- Evaluation by pupils at identified times in their PHSE programme.
- Incidence of teenage pregnancies and abortions as known.
- School Nurse feedback

This amended policy was written, approved and adopted in October 2009

..... (signature) **Head teacher**

..... (signature) **Governor**

..... (signature) **Citizenship/PHSE co-ordinator**

..... (signature) **School Council representative.**

Appendix 1

2. Maintenance of Life Learning Outcomes

2.1 Plant Cells

1	<p>recognise that most plant cells, like animal cells, have the following parts:</p> <ul style="list-style-type: none"> • a nucleus which controls the activities of the cell; • cytoplasm in which most of the chemical reactions take place, <i>and that these are controlled by enzymes</i>; • a cell membrane which controls the passage of substances in and out of the cell; • <i>mitochondria, which is where most energy is released in respiration.</i>
2	<p>describe the differences between animal and plant cells, to include the presence in plant cells of:</p> <ul style="list-style-type: none"> • a cell wall which strengthens the cell; • chloroplasts which absorb light energy to make food; • a permanent vacuole filled with cell sap.
3	<p>relate the structure of different types of plant cells to their function in a tissue or an organ.</p>

2.2 Photosynthesis

1	<p>state the word equation for photosynthesis: carbon dioxide + water [+ light energy] = glucose + oxygen</p>
2	<p>describe that during photosynthesis:</p> <ul style="list-style-type: none"> • light energy is absorbed by a green substance called chlorophyll which is found in chloroplasts; • this energy is used by converting carbon dioxide and water into glucose; • oxygen is released as a by-product.
3	<p>explain how the rate of photosynthesis may be limited by any of the following factors:</p> <ul style="list-style-type: none"> • low temperature; • shortage of carbon dioxide; • shortage of light.
4	<p>recognise that the glucose produced in photosynthesis may be converted into insoluble starch for storage or used for respiration.</p>
5	<p><i>recognise that the energy released by plants during respiration is used to build up smaller molecules into larger molecules:</i></p> <ul style="list-style-type: none"> • <i>sugars into starch;</i> • <i>sugars into cellulose for cell walls;</i> • <i>sugars and nitrates into amino acids then into proteins;</i> • <i>sugars into lipids for storage in seeds.</i>
6	<p>state that plant roots absorb mineral salts including nitrate needed for healthy growth.</p>
7	<p><i>recognise that for healthy growth plants need mineral ions including:</i></p> <ul style="list-style-type: none"> • <i>nitrate – for the synthesis of proteins;</i> • <i>phosphate – has an important role in the reactions involved in photosynthesis and respiration;</i> • <i>potassium – helps enzymes involved in photosynthesis and respiration to work.</i>
8	<p><i>appreciate that mineral ion deficiencies result in:</i></p> <ul style="list-style-type: none"> • <i>stunted growth and yellow leaves if nitrate ions are deficient;</i> • <i>poor root growth and purple leaves if phosphate ions are deficient;</i> • <i>yellow leaves with dead spots if potassium ions are deficient.</i>

2.3 Movement of Substances

1	state that carbon dioxide enters leaves through the stomata and leaf cells by diffusion.
2	recognise that: <ul style="list-style-type: none"> transpiration is the loss of water vapour from the surface of leaves through tiny holes called stomata; the size of the stomata is controlled by guard cells which surround them; water inside plant cells give support, if the cells are short of water they wilt; the stomata can close to prevent wilting; plants have a waxy cuticle on their leaves to reduce water loss.
3	apply the fact that transpiration is more rapid in hot, dry and windy conditions.
4	realise that plants living in dry conditions have a thicker waxy cuticle.
5	realise that xylem tissue transports water and minerals from the roots to the stem and leaves.
6	realise that phloem tissue carries nutrients such as sugars from the leaves to the rest of the plant.
7	explain how water enters root cells by osmosis and know that this is aided by root hairs' large surface area.
8	define osmosis as the diffusion of water from a dilute to a more concentrated solution through a partially permeable membrane.
8	explain why the leaves have a large surface area caused by their flattened shape and internal air spaces.
9	<i>recall that some substances can be absorbed against a concentration gradient, this is called active transport and enables plants to absorb ions from very dilute solutions.</i>
10	<i>recall that respiration provides energy for active transport.</i>
11	<i>describe that the movement of water into plant cells by osmosis increases the pressure inside the cell.</i>
12	<i>describe the importance of rigid turgid cells for support.</i>

2.4 Plants Response to Stimuli

1	appreciate that plants are sensitive to light, moisture and gravity: <ul style="list-style-type: none"> their shoots grow towards light and against the force of gravity; their roots grow towards moisture and in the direction of the force of gravity.
2	recognise that plants produce hormones to coordinate and control growth and reproduction in plants.
3	appreciate that unequal growth is a result of unequal distribution of hormones.
4	recall that the hormones can be used by humans to: <ul style="list-style-type: none"> produce large numbers of plants quickly by stimulating the growth of roots from cuttings; regulate the ripening of fruits on the plant and during transport to customers; kill weeds by disrupting their normal growth patterns.

2.5 Humans Response to Stimuli

1	recall that receptor cells detect a variety of stimuli, including light, sound, changes in position, chemicals, touch, pressure and temperature.
2	appreciate that information from receptors passes along neurones in nerves to the brain, where it coordinates the response.
3	realise some responses to stimuli are automatic and rapid, these are called reflex actions.
4	describe a simple reflex action as: <ul style="list-style-type: none"> electrical impulses passing from a receptor along a sensory neurone to the spinal cord or brain (CNS);

	<ul style="list-style-type: none"> • <i>at junctions (synapses) in the CNS between the sensory, relay and motor neurones, a chemical is released which can pass the impulse along;</i> • <i>then along a motor neurone to a muscle or gland (effector);</i> • <i>the muscle responds by contracting or gland responds by secreting chemical substances.</i>
5	name and locate the parts of the eye to include sclera, cornea, iris, pupil, lens, ciliary muscle, suspensory ligament, retina and optic nerve.
6	describe that the eye has a: <ul style="list-style-type: none"> • <i>tough outer sclera that has a transparent region at the front called the cornea;</i> • <i>muscular iris that controls the size of the pupil and hence the amount of light reaching the retina;</i> • <i>lens that is held in position by suspensory ligaments and ciliary muscles;</i> • <i>retina that contains receptor cells which are sensitive to light.</i>
7	explain the roles of the: <ul style="list-style-type: none"> • <i>cornea and lens in producing an image on the retina;</i> • <i>receptor cells in the retina in sending impulses to the brain along sensory neurones in the optic nerve;</i> • <i>lens to focus near or distant objectives by altering its shape, which is controlled by the contraction or relaxation of the ciliary muscles.</i>
8	analyse a reflex action in terms of: <i>stimulus → receptor → coordinator → effector → response</i>

2.6 Homeostasis

1	recognise that humans need to remove waste products from their bodies and to keep their environment relatively constant.
2	explain how waste products are removed from the body including: <ul style="list-style-type: none"> • <i>carbon dioxide produced by respiration – via the lungs when we breathe out;</i> • <i>urea produced in the liver by the breakdown of excess amino acids – removed by the kidneys in the urine, temporarily stored in the bladder.</i>
3	recognise that water enters the body as drink or in food, and that the gain and loss of water must balance.
4	explain how internal conditions are controlled including: <ul style="list-style-type: none"> • <i>water content – excreted via the lungs during breathing, the skin when we sweat and excess water via the kidneys in urine;</i> • <i>ion content – excreted via the skin when we sweat and excess ions via the kidneys in the urine;</i> • <i>temperature – maintained for enzymes to work at their best by sweating to cool the body.</i>
5	<i>explain that body temperature is monitored and controlled by the thermoregulatory centre in the brain, it has receptors sensitive to blood temperature and skin receptors relaying its temperature.</i>
6	<i>explain the body's responses if the core body temperature is too high:</i> <ul style="list-style-type: none"> • <i>blood vessels supplying the skin capillaries dilate so that more blood flows through the capillaries and more heat is lost;</i> • <i>sweat glands release more sweat which cools the body as it evaporates.</i>
7	<i>explain the body's responses if the core body temperature is too low:</i> <ul style="list-style-type: none"> • <i>blood vessels supplying the skin capillaries constrict to reduce the flow of blood through the capillaries;</i> • <i>muscles 'shiver' – their contraction needs respiration which releases some energy as heat.</i>
8	state that hormones:

	<ul style="list-style-type: none"> • coordinate processes in the body; • are secreted by glands; • are transported to their target organs by the bloodstream.
9	state that the hormones insulin and glucagons, which are secreted by the pancreas, control blood glucose concentrations.
10	describe that diabetes is a disease where the pancreas doesn't produce enough insulin so the persons blood glucose concentration rises too high, and it can be treated by injecting insulin and following a careful diet.
11	<p><i>explain how the pancreas monitors and controls blood glucose concentrations by:</i></p> <ul style="list-style-type: none"> • <i>if its too high – secreting insulin which stimulates the conversion of glucose into insoluble glycogen in the liver and storing it;</i> • <i>if its too low – secreting glucagon to convert the glycogen in the liver back into glucose.</i>
12	<p><i>explain how the kidneys maintain the internal environment by:</i></p> <ul style="list-style-type: none"> • <i>filtering the blood;</i> • <i>re-absorbing all the sugar and the dissolved ions needed by the body and as much water as the body needs;</i> • <i>releasing urea, excess ions and excess water as urine.</i>
13	<i>explain that the sugar and dissolved ions are actively absorbed from the kidney tubules against a concentration gradient.</i>
14	<p><i>explain how the hormone ADH, secreted by the pituitary gland, controls water re-absorption by:</i></p> <ul style="list-style-type: none"> • <i>too little water in the blood – more ADH is secreted, causing the kidneys to re-absorb more water, resulting in more concentrated urine;</i> • <i>too much water in the blood – less ADH is secreted, less water is re-absorbed, resulting in a more dilute urine.</i>

2.7 Effects of Drugs

1	<p>state how solvents:</p> <ul style="list-style-type: none"> • affect behaviour; • cause damage to the lungs, liver and brain.
2	<p>describe how alcohol:</p> <ul style="list-style-type: none"> • affects the nervous system by slowing down reactions, leading to a lack of self control, unconsciousness or even coma; • causes long term damage to the liver and brain.
3	recognise that drugs change the chemical processes in people's bodies so that they may become dependent or addicted to them and suffer withdrawal symptoms without them. E.g. nicotine in tobacco.
4	<p>explain tobacco smoke contains substances which cause:</p> <ul style="list-style-type: none"> • lung cancer; • other lung diseases such as bronchitis and emphysema; • disease of the heart and blood vessels; • low birth mass - when pregnant women smoke, carbon monoxide reduces the oxygen-carrying capacity of the blood, <i>by irreversibly combining with the haemoglobin in red blood cells</i>, depriving a foetus of oxygen.
5	explain how the link between smoking tobacco and lung cancer gradually became accepted.

4. Inheritance and Selection Learning Outcomes

4.1 Variation

1	recognise that organisms have similar characteristics to their parents because information is passed on in the alleles of the genes carried on the chromosomes (usually in pairs) found in the nucleus of the gametes.
2	explain why: <ul style="list-style-type: none"> • Mendel proposed the idea of separately inherited factors known as genes; • the importance of Mendel's discovery was not recognised until after his death.
3	describe how variation may be due to differences in: <ul style="list-style-type: none"> • the genes they have inherited (genetic); • the conditions in which they have developed (environmental); or a combination of both.
4	state that body cells divide during growth or to produce replacements.
5	<i>explain mitosis as cell division for growth and development by</i> <ul style="list-style-type: none"> • <i>copying of each chromosome before cell division;</i> • <i>each body cell having exactly the same genetic information.</i>
6	<i>explain meiosis as cell division in the testes and ovaries to form gametes:</i> <ul style="list-style-type: none"> • <i>copies of the chromosomes are made;</i> • <i>each cell divides twice to form four gametes, each with a single set of chromosomes.</i>
7	<i>describe that when the gametes fuse at fertilisation, a single body cell with new pairs of chromosomes is formed.</i>
8	realise there are two forms of reproduction: <ul style="list-style-type: none"> • sexual – fusion of male and female gametes, resulting in genetic variation; • asexual – no fusion as only one parent required, resulting in a genetically identical clone, <i>by mitosis</i>.
9	<i>explain that sexual reproduction gives rise to variation because;</i> <ul style="list-style-type: none"> • <i>the gametes are produced from the parental cells by meiosis;</i> • <i>when gametes fuse, one of each pair of alleles comes from each parent;</i> • <i>the alleles in a pair may vary and therefore produce different characteristics.</i>

4.2 Selective Breeding

1	appreciate that genetically identical plants can be produced by taking cuttings and that this is quick and cheap.
2	describe artificial selection as the breeding of organisms with chosen characteristics, which may produce new varieties.
3	explain that selective breeding and cloning greatly reduces the number of alleles, therefore producing new varieties for changed conditions may not be possible.
4	understand modern cloning techniques include: <ul style="list-style-type: none"> • tissue culture – using small groups of cells from part of a plant; • embryo transplants – splitting apart cells from a developing animal embryo before they become specialised, then transplanting the identical embryos into host mothers.
5	describe genetic engineering as using enzymes to cut genes from chromosomes and transferring them into another organism.
6	describe examples of genetic engineering where genes are transferred into: <ul style="list-style-type: none"> • bacterial cells where it continues to make the same protein, this can be cultured on a large scale to produce commercial quantities and is used in the manufacture of drugs and hormones i.e. insulin; • animal and plant cells at an early stage in their development so that they

	develop with desired characteristics.
7	make informed judgements about the economic, social, and ethical issues concerning cloning and genetic engineering.

4.3 Evolution

1	appreciate that fossils are the 'remains' of plants or animals from many years ago which are found in rocks and they tell us how much (or little) different organisms have changed since life developed on Earth.
2	describe how fossils may have formed: <ul style="list-style-type: none"> • from the hard parts of animals which do not decay easily; • from parts of animals or plants which have not decayed because one or more of the conditions needed for decay are absent; • when parts of the plant or animal are replaced by other materials as the decay; • as preserved traces of animals/plants, e.g. footprints, burrows or rootlet traces.
3	state the theory of evolution – all species of living things which exist today, and may more which are now extinct, have evolved from simple life-forms which first developed more than three billion years ago.
4	explain how fossils provide evidence for the theory of evolution.
5	explain that evolution occurs via natural selection: <ul style="list-style-type: none"> • individual organisms within a particular species may show a wide range of variation because of differences in their genes; • predation, disease and competition cause large numbers of individuals to die; • individuals with characteristics most suited to the environment are more likely to survive to breed successfully; • the genes which have enabled these individuals to survive are then passed on to the next generation.
6	suggest reasons why Darwin's theory of natural selection was only gradually accepted.
7	<i>identify the differences between Darwin's theory of evolution and conflicting theories, e.g. Lamarck's; and suggest reasons for the different theories.</i>
8	explain how over use of antibiotics can lead to the evolution of resistant bacteria.
9	understand the environment that species need to be able to survive may change or successful new predators, new diseases or new competitors may arise. Unless evolution occurs and species become better adapted to survive these changes they may become extinct.
10	describe that new forms of genes result from changes (mutations) in existing genes.
11	explain that mutations occur naturally and the chance of mutations occurring is increased by exposure to ionising radiations, inc. ultraviolet light, X-rays and radiation from radioactive substances; the greater the dose of radiation, the greater the chance of mutation; and certain chemicals.
12	<i>explain most mutations are harmful, if they occur in:</i> <ul style="list-style-type: none"> • <i>reproductive cells, young may develop abnormally or die at an early stage of their development;</i> • <i>body cells, these may start to multiply in an uncontrolled way and invade other parts of the body; this is cancer.</i>
13	<i>explain that some mutations are neutral in their effects and, in rare cases, a mutation may increase the chances of survival of an organism and any offspring which inherit the mutant gene.</i>

4.4 Genetics

1	state in human body cells, one of the 23 pairs of chromosomes carries the genes which determine sex. In females the sex chromosomes are the same (XX); in males they are different (XY).
2	describe chromosomes as having a long molecule of DNA, divided up into sections called genes.
3	describe that certain characteristics is controlled by one gene and they often have two different forms called alleles.
4	explain that alleles control the development of a characteristic, they can be either: <ul style="list-style-type: none"> • dominant – only one has to present; • recessive – two has to be present and no dominant alleles.
5	<i>explain that if the two alleles are the same they are described as homozygous and if they are different heterozygous.</i>
6	<i>predict and explain the outcomes of crosses for each possible combination of alleles.</i>
7	<i>construct and interpret genetic diagrams.</i>
8	appreciate that some disorders are inherited: <ul style="list-style-type: none"> • Huntington's disease – effects the nervous system – dominant allele so passed on by one affected parent; • Cystic fibrosis – effects the cell membranes – recessive allele so passed on by both parents, they could be carriers or sufferers; • Sickle-cell anaemia – effects the red blood cells, reduces their oxygen carrying capacity. Being a carrier ca be advantageous in countries where malaria is prevalent.
9	<i>describe that DNA consists of four different compounds called bases and a sequence of three bases is the code for a particular amino-acid, the order of bases controls the order amino-acids assemble to produce a particular protein.</i>

4.5 Controlling Fertility

1	state that hormones secreted by the pituitary land and ovaries control the monthly release of an egg from a woman's ovaries and changes in the thickness of the lining of her womb, <i>including</i> : <ul style="list-style-type: none"> • <i>FSH which is secreted by the pituitary gland causes an egg to mature in one of the ovaries and stimulates the ovaries to produce oestrogen;</i> • <i>oestrogen which is secreted by the ovaries and inhibits the further production of FSH as well as stimulating the pituitary gland to produce a hormone called LH;</i> • <i>LH which is secreted by the pituitary gland and simulates the release of the egg about the middle of the menstrual cycle.</i>
2	describe how fertility in women can be controlled by giving hormones that <ul style="list-style-type: none"> • stimulate the release of eggs from the ovaries (fertility drugs), <i>by giving FSH to women whose own level of FSH is too low;</i> • prevent the release of eggs from the ovaries (oral contraception), <i>which contains oestrogen to inhibit FSH production so that no eggs mature.</i>
3	evaluate the benefits of, and the problems that may arise from, the use of hormones to control fertility.

7A, 7B & 7D Growing Target Sheet

Level 3	
1	recall that all organisms are made from cells
2	describe how mammals reproduce
3	recall that reproduction is one of the 7 life processes MRS GREN
4	describe the basic stages of the human lifecycle
5	identify similarities and differences between organisms of the same species
6	classify organisms into plants and animals
7	define a 'vertebrate'
8	define an 'invertebrate'
Level 4	
9	identify and name features of a cell
10	decide whether a cell is an animal or plant cell just by looking at its organelles
11	identify and name the reproductive organs
12	define fertilisation as when the egg and sperm join
13	describe that similarities and differences in organisms of the same species can be caused by environmental or inherited factors
14	describe how environments can cause variation
15	name the 5 vertebrate groups of the animal kingdom
16	name some of the invertebrate groups of the animal kingdom
Level 5	
17	describe the functions of the parts of the cell
18	describe the differences between animal and plant cells
19	name some specialised cells
20	describe how new cells are formed and explain how growth occurs (cell division and expansion)
21	describe how cells are grouped to form tissues
22	describe the functions of the reproductive organs
23	define that fertilisation is the fusion of two cell nuclei
24	describe egg and sperm cells
25	explain how the foetus obtains the materials it needs for growth
26	describe differences between gestation periods of humans and other mammals
27	link this to the independence of human babies compared to other mammals
28	describe the menstrual cycle
29	explain the importance of classifying living things
30	identify 5 features of mammals, amphibians, fish, reptiles and birds
31	identify 3 features of the main invertebrate groups
Level 6	
32	describe how each of the cells are specialised to carry out particular jobs including egg and sperm
33	describe how egg and sperm carry the information for the development of a new life
34	explain how toxins taken by the mother (e.g. alcohol, drugs) can reach and affect the unborn baby
Level 7	
35	identify common variations between individuals that are inherited
36	identify some characteristics of an organism that are caused by both inherited and environmental factors
37	name some organisms that are not easily classified as plant or animal