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| **Syllabus changes** |
| The content identified by ~~strikethrough~~ has been deleted from the syllabus and the content identified in *italic*s has been revised in the syllabus for teaching from 2023.**Unit 1****Science Inquiry Skills*** design investigations, including the procedure(s) to be followed, the materials required, and the type and amount of primary and/or secondary data to be collected; conduct risk assessments; and consider research ethics~~, including animal ethics~~
* conduct investigations~~, including monitoring body functions; use microscopy techniques; and perform real or virtual dissection,~~ safely, competently and methodically for the collection of valid and reliable data
* represent data in meaningful and useful ways; organise and analyse data to identify trends, patterns and relationships; qualitatively describe sources of measurement error~~, and uncertainty,~~ and limitations in data; and select, synthesise and use evidence to make and justify conclusions

**Science as a Human Endeavour*** blood transfusions rely on determining blood groups *(ABO and Rhesus)*, and can be used to treat many different diseases and conditions
* treatment of conditions due to system or organ dysfunction has changed through improvements in early diagnosis and appropriate use of drugs, physical therapy, ~~radiation therapy,~~ and removal and/or replacement of affected parts

**Science Understanding** **Cells and tissues*** the cell membrane separates the cell from its surroundings with a structure, described by the fluid mosaic model, which allows for the movement of materials into and out of the cell by *osmosis*, *simple* diffusion, facilitated diffusion ~~osmosis~~, active transport and vesicular transport (endocytosis/exocytosis)

**Metabolism*** cellular respiration occurs, in different locations in the cytosol and mitochondria, to catabolise organic compounds, aerobically or anaerobically, to ~~release~~ *store* energy in the form of adenosine triphosphate (ATP)

**Digestive system*** digestion involves the breakdown of large molecules to smaller ones by mechanical digestion (teeth, *peristalsis*, *churning* and bile ~~and peristalsis~~) and chemical digestion (by enzymes with distinctive operating conditions and functions that are located in different sections of the digestive system)

**Excretory system*** [the excretory system](http://www.emc.maricopa.edu/faculty/farabee/biobk/BioBookglossE.html#excretory system) regulates the chemical composition of body fluids by removing metabolic wastes and *regulating* ~~retaining the proper amounts of~~ water, salts, and nutrients~~; components of this system include the kidneys, liver, lungs, and skin functioning at the organ level~~ *(regulatory processes not required)*

**Unit 2****Science Inquiry Skills*** design investigations, including the procedure(s) to be followed, the materials required, and the type and amount of primary and/or secondary data to be collected; conduct risk assessments; and consider research ethics~~, including animal ethics~~
* represent data in meaningful and useful ways; organise and analyse data to identify trends, patterns and relationships; qualitatively describe sources of measurement error~~, and uncertainty,~~ and limitations in data; and select, synthesise and use evidence to make and justify conclusions

**Science as a Human Endeavour*** the use of ~~genetic profiling and~~ genetic screening ~~of adults and embryos~~ *to assess the risk of inherited disorders has* implicit ethical considerations
* new technologies, including the ~~Pap smear~~ *cervical screening test*, breast screening and blood tests for prostate cancer, have made early detection of cancers possible

**Science Understanding****DNA*** protein synthesis involves the transcription of a gene on DNA into messenger RNA ~~ribonucleic acid (RNA)~~ in the nucleus, and translation into an amino acid sequence at the ribosome with the aid of transfer RNA

**Human Reproduction*** contraception methods that reduce the probability of the union of gametes or implantation all have limitations, risks and benefits, and include methods that:
	+ *use fertility awareness*
	+ use steroid hormones
	+ use physical barriers between gametes
	+ use chemical spermicides
	+ use sterilisation (tubal ligation, vasectomy)
	+ function after coitus (emergency contraceptive pill and intrauterine devices [IUDs])
* there are a range of techniques available to ~~genetically~~ screen embryos before implantation or during early development, including blood tests, *ultrasound*, amniocentesis and chorionic villi sampling

**Types of inheritance*** ~~DNA profiling identifies the unique genetic make up of individuals and can be used in determining parentage~~
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