

Curriculum Links for: ABPI Cell Division and Cancer

Key Stage 3 (Age 11-14)

Science

National Curriculum	Life processes and Living Things		
	Life processes and cell activity	1.1	animals ... are made up of cells
		1.6	many animals ... have organs which support life processes
	Humans as organisms <i>Health</i>	2.18	the abuse of alcohol, solvents and other drugs affects health
	Physical Processes		
	Waves	3.9	how X rays can be used in medicine and the care required in their use

This web resource contains information under the following topic headings:

- **Cells, the body and growth** – how the body is assembled; different types of cells; structure of an animal cell; how molecules move in and out of cells
- **Cell division: mitosis and meiosis** – including an animation on mitosis
- **Chromosomes and genes** - what is a chromosome; what is DNA; what are genes; genes, cell division and cancer
- **When cell division goes wrong** - what is cancer; malignant tumours; the growth and spread of malignant tumours
- **What causes cancer?** – genetic mutations; cigarette smoke; ionising radiation; carcinogenic chemicals; UV radiation in sunlight; chance
- **Treatments for cancer** - lung cancer; breast cancer; early diagnosis; surgery; chemotherapy; radiotherapy; how different cancers are treated; side-effects

- **Radiation: cause and cure** – alpha radiation; beta radiation; gamma radiation; X-rays; UV radiation; Radiotherapy, internal and external