

**AS/Advanced GCE General Studies**  
**Book List and Web-sites for Unit 2: Scientific Horizons**

*The following list of materials is provided for guidance. It is not an exhaustive list.*

Unit 2 Section	Books/Magazines	Websites
General resources	<ul style="list-style-type: none"> <li>÷ 'New Scientist' - a weekly magazine which is taken by most libraries. It is very accessible to the non-specialist reader. If you sign on to its website, you can have a summary of the weekly contents emailed to you, at no charge.</li> <li>÷ 'Scientific American' - a monthly magazine, with excellently produced accessible articles. It also has a website with an index and collection of back items.</li> <li>÷ Association for Science Education (ASE) - Science and technology in Society (SATIS) – 'What is Science?' (1992)</li> <li>÷ J Carey (ed) – 'The Faber Book of Science', Faber 1996</li> <li>÷ W Gratzner (ed) – 'The Longman Literary Companion to Science', Longman 1989</li> <li>÷ D Millar et al – 'Chambers Concise Dictionary of Scientists', Chambers 1990</li> </ul>	<p><a href="http://www.newscientist.com/">http://www.newscientist.com/</a>  <a href="http://www.sciam.com/">http://www.sciam.com/</a></p> <p>Both these sites have a search facility , so that you can quickly find references to, say, BSE, nuclear energy, global warming etc</p> <p><a href="http://www.nerc.ac.uk/research-councils/">http://www.nerc.ac.uk/research-councils/</a></p>
2.1 Characteristics of the sciences; scientific revolutions.	<ul style="list-style-type: none"> <li>÷ Melvyn Bragg – 'On Giants' Shoulders'</li> <li>÷ 'A Brief History of Time' - Stephen Hawking, Bantam Press 1988</li> <li>÷ Martin Rees – 'Just Six Numbers', Phoenix 1999</li> <li>÷ Richard Dawkins – 'Unweaving the Rainbow', Penguin 1999</li> <li>÷ Stillman Drake – 'Galileo', OUP 1980</li> <li>÷ Jonathan Howard – 'Darwin', OUP 1981</li> </ul>	<p><a href="http://www.physics.gla.ac.uk/introPhy/Famous/index.html">http://www.physics.gla.ac.uk/introPhy/Famous/index.html</a>  <a href="http://www.astro.uni-bonn.de/~pbroscche/hist_astr/">http://www.astro.uni-bonn.de/~pbroscche/hist_astr/</a>  <a href="http://www.cv.nrao.edu/fits/www/yp_history.html">http://www.cv.nrao.edu/fits/www/yp_history.html</a>  <a href="http://fits.cv.nrao.edu/www/astrometry.html">http://fits.cv.nrao.edu/www/astrometry.html</a>  <a href="http://www.newscientist.com/nsplus/insight/global/faq.html">http://www.newscientist.com/nsplus/insight/global/faq.html</a>  <a href="http://www.ncdc.noaa.gov/ol/climate/globalwarming.html">http://www.ncdc.noaa.gov/ol/climate/globalwarming.html</a>  <a href="http://health.upenn.edu/ihqt/index.html">http://health.upenn.edu/ihqt/index.html</a>  <a href="http://health.upenn.edu/ihqt/info/prospcts.html">http://health.upenn.edu/ihqt/info/prospcts.html</a>  <a href="http://news.bbc.co.uk/1/1/english/sci/tech/newsid_579000/579009.stm">http://news.bbc.co.uk/1/1/english/sci/tech/newsid_579000/579009.stm</a></p>
2.2 The nature of scientific objectivity and the question of progress	<ul style="list-style-type: none"> <li>÷ S J Gould, 'The Mismeasure of Man', Penguin 1981</li> <li>÷ Richard Dawkins – 'The Blind Watchmaker'</li> <li>÷ Stephen Hawking – 'A Brief History of Time' - Bantam 1988</li> <li>÷ Ernst Mayr – 'Darwin's Influence on Modern Thought', Scientific American July 2000, p66.</li> </ul>	
2.3 Understanding of scientific methods, principles, criteria and their applications.	<ul style="list-style-type: none"> <li>÷ PB Medawar – 'Advice to a Young Scientist'. Harper Row 1979</li> <li>÷ Simon Singh – 'Fermat's Last Theorem', Fourth Estate 1997</li> <li>÷ John Maynard Smith – 'The Problems of Biology' OUP1986</li> </ul>	<p><a href="http://www.chemsoc.org/viselements/">http://www.chemsoc.org/viselements/</a>  <a href="http://www.gsu.edu/~mstjrh/atomictheory.html">http://www.gsu.edu/~mstjrh/atomictheory.html</a>  <a href="http://www.weburbia.demon.co.uk/physics/measure_c.html">http://www.weburbia.demon.co.uk/physics/measure_c.html</a></p>
2.4 Moral responsibility: the social, ethical and environmental implications of scientific discoveries and technological development	<ul style="list-style-type: none"> <li>÷ 'The Business of the Human Genome', 'Scientific American' July 2000 pp 38-58.</li> <li>÷ PB Medawar, 'Advice to a Young Scientist'. Harper Row 1979</li> </ul>	<p><a href="http://www.ornl.gov/TechResources/Human_Genome/home.html">http://www.ornl.gov/TechResources/Human_Genome/home.html</a>  <a href="http://www.newscientist.com/ns/980523/ngenome.html">http://www.newscientist.com/ns/980523/ngenome.html</a>  <a href="http://www.ncbi.nlm.nih.gov/Genbank/GenbankOverview.html">http://www.ncbi.nlm.nih.gov/Genbank/GenbankOverview.html</a>  <a href="http://www.er.doe.gov/production/ober/hug_top.html">http://www.er.doe.gov/production/ober/hug_top.html</a>  <a href="http://www.nhgri.nih.gov/ELSI/">http://www.nhgri.nih.gov/ELSI/</a>  <a href="http://www.ncbi.nlm.nih.gov/">http://www.ncbi.nlm.nih.gov/</a>  <a href="http://www.ri.bbsrc.ac.uk/library/research/cloning/cloning.html">http://www.ri.bbsrc.ac.uk/library/research/cloning/cloning.html</a>  <a href="http://www.humancloning.org/seed.htm">http://www.humancloning.org/seed.htm</a>  <a href="http://www.doh.gov.uk/cloning.htm">http://www.doh.gov.uk/cloning.htm</a>  <a href="http://www.banneroftruth.co.uk/articles/technological_cannibalism.htm">http://www.banneroftruth.co.uk/articles/technological_cannibalism.htm</a>  <a href="http://www.newscientist.com/nsplus/insight/clone/clone.html">http://www.newscientist.com/nsplus/insight/clone/clone.html</a>  <a href="http://dSPACE.dial.pipex.com/srtscot/cloning.shtml">http://dSPACE.dial.pipex.com/srtscot/cloning.shtml</a>  <a href="http://www.geneletter.com/archives/twentyonearguments.html">http://www.geneletter.com/archives/twentyonearguments.html</a>  <a href="http://www.catholicdoctors.org.uk/Submissions/cloning_expert_com_mittee.htm">http://www.catholicdoctors.org.uk/Submissions/cloning_expert_com_mittee.htm</a>  <a href="http://www.brad.ac.uk/acad/sbtwc/other/bw-info.htm">http://www.brad.ac.uk/acad/sbtwc/other/bw-info.htm</a>  <a href="http://www.medword.com/hippocrates.html">http://www.medword.com/hippocrates.html</a>  <a href="http://www.euthanasia.com/belgium.html">http://www.euthanasia.com/belgium.html</a>  <a href="http://www.hol.gr/greece/medicine.htm">http://www.hol.gr/greece/medicine.htm</a>  <a href="http://www.cs.umb.edu/jfklibrary/j072663.htm">http://www.cs.umb.edu/jfklibrary/j072663.htm</a>  <a href="http://www.pugwash.org/index.htm">http://www.pugwash.org/index.htm</a>  <a href="http://www.frame-uk.demon.co.uk">http://www.frame-uk.demon.co.uk</a>  <a href="http://www.scienceinparliament.co.uk/traditional_index.html">http://www.scienceinparliament.co.uk/traditional_index.html</a></p>

2.5 Mathematical reasoning and its applications	<ul style="list-style-type: none"> <li>÷ 'How to Lie with Statistics' - Darrell Huff, Penguin Books 1991</li> <li>÷ 'Mendel' - V 'Orel 'OUP 1984</li> <li>÷ E R Tufte – 'The Visual Display of Quantitative Information', Graphics Press, Connecticut USA 1983</li> <li>÷ E R Tufte – 'Envisioning Information', Graphics Press, Connecticut USA 1990</li> </ul>	<ul style="list-style-type: none"> <li><a href="http://www.official-documents.co.uk/document/doh/tobacco/report.htm">http://www.official-documents.co.uk/document/doh/tobacco/report.htm</a></li> <li><a href="http://www.aabc.org.uk/facts.htm">http://www.aabc.org.uk/facts.htm</a></li> <li><a href="http://hosted.aware.easynet.co.uk/">http://hosted.aware.easynet.co.uk/</a></li> <li><a href="http://www.ash.org.uk/html/about/pubcat.html">http://www.ash.org.uk/html/about/pubcat.html</a></li> <li><a href="http://www.cancerindex.org/clinks3c.htm">http://www.cancerindex.org/clinks3c.htm</a></li> <li><a href="http://www.imperialcancer.co.uk">http://www.imperialcancer.co.uk</a></li> </ul>
2.6 The relationship between technology, science, culture and ideology	<ul style="list-style-type: none"> <li>÷ Dava Sobel – 'Longitude', Harper Collins 1998</li> <li>÷ James Lovelock – 'The Ages of Gaia' OUP 1995</li> <li>÷ P Alma – 'Environmental Concerns', CUP 1993</li> <li>÷ Adam Hart-Davis and P Bader – 'The Local Heroes' Book of British Ingenuity', Sutton 1997</li> </ul>	<ul style="list-style-type: none"> <li><a href="http://www.oneworld.org/ni/issue284/index.html">http://www.oneworld.org/ni/issue284/index.html</a></li> <li><a href="http://www.oneworld.org/ni/index4.html">http://www.oneworld.org/ni/index4.html</a></li> <li><a href="http://www.ussc.alltheweb.com/go/1/H/news.bbc.co.uk/hi/english/static/events/reith_2000/">http://www.ussc.alltheweb.com/go/1/H/news.bbc.co.uk/hi/english/static/events/reith_2000/</a></li> <li><a href="http://www.princeofwales.gov.uk/speeches/speeches_index_5.html">http://www.princeofwales.gov.uk/speeches/speeches_index_5.html</a></li> <li><a href="http://www.sunday-times.co.uk/news/pages/sti/2000/05/21/stinwcpn01002.html">http://www.sunday-times.co.uk/news/pages/sti/2000/05/21/stinwcpn01002.html</a></li> </ul>

N.B. Some of these books and web-sites may be useful for preparation for science-related questions for Unit 6: The Contemporary World.