**A Level Biology Y13 wider reading schedule**

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| **Weeks** | **Recommendations** | **Topic link** |
| Autumn1 1+2 | <https://www.youtube.com/watch?v=0HPKKFugajE>  <https://www.bumblebee.org/Haplodiploidy.htm>  <https://academic.oup.com/evolut/article/76/7/1546/6966328> | Learn about an unusual pattern of genetic inheritance! |
| Autumn1 3+4 | [https://asm.org/articles/2023/march/how-extremophiles-push- the-limits-of-life](https://asm.org/articles/2023/march/how-extremophiles-push-the-limits-of-life)  [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3787623/ pdf/ARCH2013-373275.pdf](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3787623/pdf/ARCH2013-373275.pdf)  [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5487899/pdf/ 792\_2017\_Article\_939.pdf](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5487899/pdf/792_2017_Article_939.pdf) | Learn about how some microorganisms are adapted to survive at extreme temperatures! |
| Autumn1 5+6 | <https://theg-cat.com/tag/genetic-hitchhiking/>  <https://www.princeton.edu/news/2013/07/22/evolution-picks-hitchhikers> | Not all evolution is driven by natural selection – learn more! |
| Autumn1 7+8 | <https://www.open.edu/openlearn/nature-environment/natural-history/animals-the-extremes-the-desert-environment/content-section-3.2>  <https://www.open.edu/openlearn/nature-environment/natural-history/animals-the-extremes-the-desert-environment/content-section-3.3>  <https://www.open.edu/openlearn/nature-environment/natural-history/animals-the-extremes-the-desert-environment/content-section-3.4> | Learn about how different types of animals manage osmoregulation in desert environments! |
| Autumn half term | <https://learn.genetics.utah.edu/content/epigenetics/>  <https://bitesizebio.com/8807/a-crash-course-in-epigenetics-part-1-an-intro-to-epigenetics/> | Read about the exciting field of epigenetics! |

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| **Weeks** | **Recommendations** | **Topic link** |
| Autumn2 1+2 | <https://emea.illumina.com/science/technology/next-generation-sequencing.html>  <https://nanoporetech.com/platform/technology> | Read about two types of next-gen sequencing technology |
| Autumn2 3+4 | <https://www.sciencedaily.com/releases/2023/01/230111104258.htm>  <https://www.repository.cam.ac.uk/items/381b9715-3d44-492e-b913-d8cfc515b9a4> | Read about a novel diabetes treatment developed in Cambridge! |
| Autumn2 5+6 | <https://www.cff.org/research-clinical-trials/gene-therapy-cystic-fibrosis>  <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC10395777/> | Read about the development of gene therapies for CF! |
| Autumn2 7+8 | <https://phys.org/news/2022-11-fluorescence-caught-video-reveal-sensitive.html>  <https://entomologytoday.org/2014/09/23/plant-compounds-that-smell-like-cut-grass-attract-parasitic-wasps-for-protection/>  [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC11138593/pdf/018 \_2003\_Article\_3269.pdf](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC11138593/pdf/018_2003_Article_3269.pdf) | Read more about plant responses to herbivory! |
| Christmas holiday | <https://www.newscientist.com/definition/what-is-crispr/>  <https://www.yourgenome.org/theme/what-is-crispr-cas9/>  <https://www.nature.com/articles/s41392-023-01309-7> | Learn about the CRISPR/Cas9 gene editing system |

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| **Weeks** | **Recommendations** | **Topic link** |
| Spring1 1+2 | <https://www.health.harvard.edu/blog/want-to-improve-your-memory-get-a-good-nights-sleep-2021040222255>  <https://medicine.yale.edu/news-article/sleeps-crucial-role-in-preserving-memory/>  <https://www.nature.com/articles/d41586-024-01732-y> | Interested in the brain, or study skills for biology exams? Learn more about the links between sleep and memory! |
| Spring1 3+4 | <https://microbenotes.com/high-performance-liquid-chromatography-hplc>  <https://www.news-medical.net/life-sciences/How-Does-Ion-Exchange-Chromatography-Work.aspx>  <https://www.kutztown.edu/academics/colleges-and-departments/liberal-arts-and-sciences/departments/physical-sciences/chemistry-and-biochemistry/instrumentation/gas-chromatography.html>  <https://www.kutztown.edu/academics/colleges-and-departments/liberal-arts-and-sciences/departments/physical-sciences/chemistry-and-biochemistry/instrumentation/gas-chromatography.html> | Learn about some other types of chromatography that are often used in biological research! |
| Spring1 5+6 | <https://www.youtube.com/watch?v=gC3AksJkLZ4>  <https://www.sciencedirect.com/science/article/pii/S167420522200449X> | Learn about the light-dependent reactions in more detail! |
| Spring half term | [https://www.guidetopharmacology.org/GRAC/FamilyIntroduction Forward?familyId=82](https://www.guidetopharmacology.org/GRAC/FamilyIntroductionForward?familyId=82)  <https://pdb101.rcsb.org/motm/243>  <https://pubs.acs.org/doi/10.1021/jm501981g> | Learn about the amazing mechanism behind voltage-gated Na+ channels! |

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| **Weeks** | **Recommendations** | **Topic link** |
| Spring2 1+2 | <https://pdb101.rcsb.org/motm/72>  <https://www.youtube.com/watch?v=kXpzp4RDGJI>  [https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3278611/pdf/ 10545\_2011\_Article\_9382.pdf](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3278611/pdf/10545_2011_Article_9382.pdf) | Learn about the incredible ATP synthase! |
| Spring2 3+4 | <https://cshperspectives.cshlp.org/content/10/2/a023200.full>  [https://www.frontiersin.org/journals/physiology/articles/10 .3389/fphys.2015.00174/full](https://www.frontiersin.org/journals/physiology/articles/10.3389/fphys.2015.00174/full) | Read about muscle contraction in more detail |
| Spring2 5+6 | [http://www.fossilmuseum.net/Paleobiology/Paleobiologysegues/ chemotrophs/chemotrophs.htm](http://www.fossilmuseum.net/Paleobiology/Paleobiologysegues/chemotrophs/chemotrophs.htm)  [https://bio.libretexts.org/Bookshelves/Microbiology/Microbiology\_ (Boundless)/05%3A\_Microbial\_Metabolism/5.10%3A\_Chemolitho trophy/5.10C%3A\_Oxidation\_of\_Reduced\_Sulfur\_Compounds](https://bio.libretexts.org/Bookshelves/Microbiology/Microbiology_(Boundless)/05%3A_Microbial_Metabolism/5.10%3A_Chemolithotrophy/5.10C%3A_Oxidation_of_Reduced_Sulfur_Compounds)  [https://bio.libretexts.org/Bookshelves/Microbiology/Microbiology \_(Boundless)/05%3A\_Microbial\_Metabolism/5.10%3A\_Chemolitho trophy/5.10D%3A\_\_Iron\_Oxidation](https://bio.libretexts.org/Bookshelves/Microbiology/Microbiology_(Boundless)/05%3A_Microbial_Metabolism/5.10%3A_Chemolithotrophy/5.10D%3A__Iron_Oxidation) | Read about the bacteria that obtain energy by oxidating electron donors in their environments: chemotrophs! |
| Easter holiday | Studying a science subject at university? Start with the subject reading list recommended by your institution. Otherwise, consider the CSF Biology longer reads list below:  **Top recommendation:** Books from CUP's Understanding Life series  **Interested in developmental biology?**  Endless forms most beautiful, Carroll (2005)  **Interested in medicine?**  Biomedicine and the human condition, Sargent (2005)  **Interested in conservation?**  The Missing Lynx, Barnett (2019)  **Interested in cells?**  How we live and why we die, Wolpert (2009)  **Interested in evolution?**  Why evolution is true, Coyne (2011) | |