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| **Topic** | **Link** | **Slide** |
| **Module 1** | | |
| What is Sustainability? | <https://cnx.org/contents/F0Hv_Zza@45.1:mF42kFDQ@7/What-is-Sustainability> | 5 |
| Three pillars of sustainability | <https://circularecology.com/sustainability-and-sustainable-development.html> | 6 |
| Limits to growth | <https://optimizeias.com/limits-to-growth/#:~:text=Limit%20of%20growth%20theory%20says,limited%20resources%20available%20on%20earth>. | 7 & 8 |
| Colony collapse disorder | <https://ohiostate.pressbooks.pub/sciencebites/chapter/the-mysterious-case-of-colony-collapse-disorder/#:~:text=Colony%20Collapse%20Disorder%20or%20CCD,multi%2Dbillion%20dollar%20food%20industry>. | 10 |
| IPAT equation | <https://cnx.org/contents/F0Hv_Zza@45.1:2W5z7VQ7@5/The-IPAT-Equation> | 11 |
| Growth Curve | <https://www.investopedia.com/terms/g/growth-curve.asp> | 12 |
| St. Mathhew island reindeer population | <http://graduate.cees.wfu.edu/magazine/remarkable-networks-survival-of-the-fittest-community> | 13 & 14 |
| Growth curves | <https://courses.lumenlearning.com/boundless-biology/chapter/environmental-limits-to-population-growth/> | 17 |
| Malthusian theory | <https://www.vedantu.com/physics/malthusian-theory-of-population>  Read Malthusian theory summary | 18 |
| Fertility rate | <https://data.oecd.org/pop/fertility-rates.htm#:~:text=The%20total%20fertility%20rate%20in,prevailing%20age%2Dspecific%20fertility%20rates>. | 27 |
| Demographic transition model | <https://geographyfieldwork.com/DemographicTransition.htm> | 29 |
| Future population | <https://www.un.org/en/global-issues/population#:~:text=The%20world%20population%20is%20projected,surrounding%20these%20latest%20population%20projections>. | 30 |
| Population pyramid | <https://www.insee.fr/en/metadonnees/definition/c1230> | 31 |
| Tragedy of commons | <https://www.investopedia.com/terms/t/tragedy-of-the-commons.asp> | 34 |
| Big five mass extinction in human history | <https://ourworldindata.org/extinctions> | 44 - 48 |
| Weather vs. Climate | <https://climate.ncsu.edu/learn/weather-vs-climate-whats-the-difference/> | 50 |
| Ice core dating | <https://pages.uoregon.edu/rdorsey/geo334/O-isotopes.html>  <https://www.chemedx.org/blog/ice-cores-stable-isotopes-climate-change-and-chemistry-part-2> | 55-56 |
| Modern Climate | <https://science2017.globalchange.gov/chapter/executive-summary/> (Figure1) | 61 |
| CO2 concentration in ppm | <https://climate.nasa.gov/vital-signs/carbon-dioxide/> | 63 |
| Artic Sea level extent | <https://climate.nasa.gov/vital-signs/arctic-sea-ice/> | 64 |
| Sea level rise | <https://climate.nasa.gov/vital-signs/sea-level/> | 65 |
| Future predictions | <https://www.downtoearth.org.in/blog/climate-change/ipcc-climate-report-profound-changes-are-underway-in-earth-s-oceans-and-ice-a-lead-author-explains-what-the-warnings-mean-78382> | 66 |
| Climate Change 2022: Impacts, Adaptation & Vulnerability | <https://www.youtube.com/watch?v=SDRxfuEvqGg&t=23s> | 72 |
| Climate change: IPCC report is 'code red for humanity' | <https://www.bbc.com/news/science-environment-58130705> | 75 |
| Climate processes definition | <https://www.eol.ucar.edu/discovery/climate-process> | 76 |
| Global warming potential | <https://css.umich.edu/publications/factsheets/climate-change/greenhouse-gases-factsheet> | 88 |