Links Document Related to Science Cluster Day 2021

Scientific Habit of Mind

Name	Description	Website Addresses and QR codes
Junior Cycle for Teachers Science CPD Resources 2021	Junior Cycle for Teachers (JCT) is a dedicated continuing professional development (CPD) support service of the Department of Education and Skills. The Science team aim to support teachers in their implementation of the new Framework for Junior Cycle (2015) and in their enactment of the Science Specification. All the resources mentioned during the day are hosted on this page.	https://www.jct.ie/science/cpd_workshop_2020_2021
Science Specification	Curriculum Specification for Junior Cycle Science.	https://www.curriculumonline.ie/Junior-cycle/Junior-Cycle-Subjects/Science/
Google site for Science Cluster 2021	Google site used to host all the documents and resources used on the cluster day 2021	https://sites.google.com/jctonline.ie/jc-science-team-cluster-day/home?authuser=0

University of Berkeley – Understanding Science resource	The University of Berkeley 'Understanding Science' website is a fun, accessible, and free resource that accurately communicates what science is and how it really works, developed to support our understanding of the processes of science.	https://undsci.berkeley.edu/tour.php
Best Evidence Science Teaching (BEST)	BEST has a collection of free research evidence-informed resources for the effective progression of some key concepts in science. This website is where the talking heads activity came from.	https://www.stem.org.uk/best-evidence-science-teaching
"thinglink.. multimedia platform	"thinkLink. is a multimedia platform that was used to build the self-directed learning module. It allows users to create unique experiences with interactive images, videos & 360° media.	https://www.thinglink.com/en-us/
Ethics vs. Morals video	Short clip of Michael J. Reiss, bioethicist describing the difference in morals and ethics.	https://youtube.com/watch?v=BlQlbDBKN74&feature=share

Article on Frameworks for ethical analysis	This article 'Frameworks for ethical analysis' by Science Learning Hub provides a range of resources to support learning approaches to ethical issues and discussions.	https://www.sciencelearn.org.nz/resources/2146-frameworks-for-ethical-analysis
Video 1 for supporting discussions in a science classroom	The video 'Small families, small planet' by Population Matters, explores population growth through exploration of data. Discusses fertility levels.	https://www.youtube.com/watch?v=OoqDiwvzcHE
Video 2 for supporting discussions in a science classroom	The video 'Could We Control Human OVER Population?' by BBC Earth Lab, explores population growth through a narrated story with some tongue in cheek humour.	https://youtu.be/wG7R1SOupJg?t=65
Level 2 Learning Programmes	Access the Level 2 Learning Programmes planning resources.	https://www.jct.ie/l2lp/resources

Draft guidelines for supporting exceptionally able students.	The guidelines are a result of collaboration between the National Council for Curriculum and Assessment (NCCA), Republic of Ireland and the Council for Curriculum, Examination and Assessment (CCEA), Northern Ireland and as such, they aim to support the teaching and learning of students who are exceptionally able in both jurisdictions.	https://ncca.ie/media/1974/exceptionally_able_students_draft_guidelines_for_teachers.pdf
EcoEye Episode: 'Is it too late to save Ireland's precious Peatlands?'	Episode from EcoEye where the clip of the students were interviewed about their BT-Young Scientist project about conserving a local bog. (Clip 18:00 – 24:55 min). Subscribe to the EcoEye channel on Youtube to get all episodes.	https://www.youtube.com/watch?v=AfBRx9D87Js
Department Planning Padlet	This is a Padlet of resources to support science department discussions on planning and assessing understanding	https://padlet.com/jct2/ScienceClusterDepartment
Padlet	Padlet is an online platform that acts like a noticeboard. It allows you to hang resources in different ways so as your users can access them easily.	https://padlet.com/

Sources of Data used for the Ocean Activities.

Infographics 1 and 2 are sourced from a website www.compoundchem.com. The website creator is a chemistry teacher named Andy Brunning, who is based in the UK and creates graphics for the site in his spare time. You might find other graphics on the site which are useful.	www.compoundchem.com. Ci — Explorations of everyday chemical compounds
Figure 1 and 2 is developed from data from mare.lawrencehallofscience.org/curriculum/ ocean-science-sequence. This is a website aligned to a programme of Lawrence Hall of Science that seeks to increase ocean literacy through informal and formal education.	mare.lawrencehallofscience.org/curriculum/ocean-science-sequence. MARE

Sources of Data used for the Bog Activities.

Infographic 1 is sourced from a paper by Klaus Glenk & Julia Martin-Ortega (2018) entitled, 'The economics of peatland restoration', published in the Journal of Environmental Economics and Policy.	www.tandfonline.com/doi/citedby/10.1080/21606544.2018.1434562?scroll=top&needAccess=true& Journal of Environmental Economics and Policy Σ

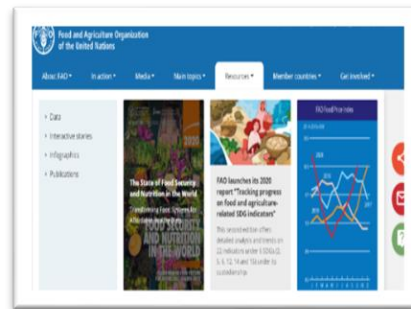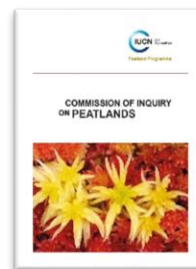|	
Infographic 2 is sourced from the Food and Agriculture Organisation of the United Nations (FAO) website. The FAO have a range of resources on their website containing graphics, statistics, interactive stories and publications.	www.fao.org/home/en/
Figure 1 is sourced from the International Union for the Conservation of Nature (IUCN) website. It has a range of resources on its website containing some videos, virtual reality simulations and images.	www.iucn-uk-peatlawwndprogramme.org/peatland-resources
Figure 2 is developed from data from a report entitled, 'Network Monitoring Rewetted and Restored Peatlands/Organic Soils for Climate and Biodiversity Benefits (NEROS)'.	www.epa.ie/pubs/reports/research/biodiversity/Research_Report_236.pdf

Sources of Data used for the Physical World 8 'Talking Head' Activities.

Article 1, 'Impact of Wind Generated Electricity on Ecology' is an excerpt from the Irish Independent regional newspaper the The Kerryman (4th November 2020 – 06:30 AM) written by Donal Nolan	www.independent.ie/regionals/kerryman/news/three-eagles-killed-by-wind-turbines-in-kerry-39703385.html
Arcticle 2, 'The Wind Sector Trend Helping to Minimise Bird Deaths', is an excerpt from an article written by Jason Deign (1st October 2020) published on Green Tech Media platform.	https://www.greentechmedia.com/articles/read/the-wind-sector-trend-helping-turbines-to-kill-fewer-birds
RTE news video, 'Fears Donegal landslide has devastated EU-protected site', reported by Vincent Kearney (18th November 2020).	https://www.youtube.com/watch?v=Whuo69ZXG3A&feature=emb_imp_woyt
SEAI Website has data on energy sources used in energy production.	https://www.seai.ie/data-and-insights/seai-statistics/key-statistics/renewables/

Sources of Data used for the Biological World 9, 'Talking Head' Activities.

Article 1, 'Can 10 billion people live and eat well on the planet? Yes.' is adapted from an article from the website Brooking.edu written by Heinz-Wilhelm Strubenhoff. (28th April 2015.)	www.brookings.edu/blog/future-development/2015/04/28/can-10-billion-people-live-and-eat-well-on-the-planet-yes BROOKINGS
Arcticle 2, 'A demographic projection of the contribution of assisted reproductive technologies to world population growth', is adapted from an article written by M.J. Faddy, M.D. Gosden & R.G. Gosden (1st February 2018) published in Reproductive Biomedicine Online Journal.	www.rbmojournal.com/article/S1472-6483(18)30039-7/fulltext RBMO REPRODUCTIVE BIOMEDICINE ONLINE