**Research links – Warm up project**

Do ocean currents exist at depth? Surface currents are restricted to 0-400 m.

<http://www.waterencyclopedia.com/Mi-Oc/Ocean-Currents.html>

https://en.wikipedia.org/wiki/Ocean\_current

Plankton depth distribution. They exist up to 1000 m.

<http://www.nature.com/nature/journal/v507/n7493/fig_tab/nature13123_SF3.html>

Data. Waste not necessarily visible!

<http://www.oscar.noaa.gov/index.html>

<https://en.wikipedia.org/wiki/Great_Pacific_garbage_patch>

<http://www.nodc.noaa.gov/access/allproducts.html>

<http://www.nodc.noaa.gov/General/plankton.html>

<http://www.nodc.noaa.gov/OC5/WOD/pr_wod.html>

<http://www.nodc.noaa.gov/cgi-bin/OC5/WOD/getgeodata.pl?Depth=O&WorldOcean.x=415&WorldOcean.y=164>

<http://odv.awi.de/en/home/>

<http://can-do.com/uci/lessons98/Raft.html>

<https://en.wikipedia.org/wiki/Random_walk>  
<http://research.jisao.washington.edu/data_sets/nco/>

<http://disc.sci.gsfc.nasa.gov/recipes/?q=recipes/How-to-Obtain-Spatially-Subsetted-Time-Series-Data-in-One-NetCDF-File-via-GDS>

<http://pages.physics.cornell.edu/~sethna/StatMech/ComputerExercises/PythonSoftware/RandomWalk.py>

<https://www.quora.com/Why-is-it-that-a-2D-random-walk-is-recurrent-while-a-3D-random-walk-is-transient>

<http://www.st.nmfs.noaa.gov/copepod/content/region_npac.html>

http://www.sciencedirect.com/science/article/pii/S0269749113004387

<http://blogs.esri.com/esri/arcgis/2013/07/17/displaying-speed-and-direction-symbology-from-u-and-v-vectors/>

<http://apdrc.soest.hawaii.edu/data/data.php>

<http://andrew.hedges.name/experiments/convert_lat_long/>

<http://oceanpython.org/category/importing-data/>

http://iridl.ldeo.columbia.edu/dochelp/QA/Technical/sign.html

Math

<http://www.timteatro.net/2010/10/29/performance-python-solving-the-2d-diffusion-equation-with-numpy/>

<http://jkwiens.com/heat-equation-using-finite-difference/>

<http://firsttimeprogrammer.blogspot.ca/p/excel.html>

<http://combichem.blogspot.ca/2013/05/calculating-diffusion-coefficients-from.html>

<https://ocefpaf.github.io/seapy/>

<https://en.wikipedia.org/wiki/Diffusion_process>

Edit

<http://www.citationmachine.net/mla/cite-a-website>