

## Sources/Copyright Links

Links for graphs that could be used in this lesson as well as some background information about the data.

Antarctic Glacial Melt graph

<http://science.sciencemag.org/content/341/6143/266.figures-only>

Email permission received

Explanation

<http://science.sciencemag.org/content/341/6143/266>

Penguins population graph

[http://pal.lternet.edu/images/sci-research/transformational\\_science/3.4.png](http://pal.lternet.edu/images/sci-research/transformational_science/3.4.png)

Explanations

<http://www.scientificamerican.com/article/gentoo-penguins-thrive-while-adelies-and-chinstraps-falter-in-a-climate-changed-world/>

<http://news.nationalgeographic.com/2016/06/adelie-penguins-antarctica-climate-change-population-decline-refugia/>

CO<sub>2</sub> Time Series graph

<http://pmel.noaa.gov/co2/files/co2timeseries.jpg>

Explanation

<http://pmel.noaa.gov/co2/story/Ocean+Carbon+Uptake>

Antarctica Ice Mass Variation graph and explanation

<http://climate.nasa.gov/vital-signs/land-ice/>

Extent of Arctic Sea Ice graph and explanation

<http://nsidc.org/cryosphere/icelights/arctic-sea-ice-101>

Greenland Ice Mass Variation graph and explanation

<http://climate.nasa.gov/vital-signs/land-ice/>

Sea Level Satellite Data graph and explanation

<http://climate.nasa.gov/vital-signs/sea-level/>

Arctic and Antarctic Sea Ice Anomaly graph and explanation

[https://nsidc.org/cryosphere/sotc/sea\\_ice.html](https://nsidc.org/cryosphere/sotc/sea_ice.html)

Arctic Sea Ice Extent Anomalies graph and explanation

[https://nsidc.org/cryosphere/sotc/sea\\_ice.html](https://nsidc.org/cryosphere/sotc/sea_ice.html)

Arctic Sea Ice 1979-2013

<http://thinkprogress.org/wp-content/uploads/2013/04/arctic-death-spiral-1979-201303.gif>

Permission granted by creator.

Explanation

<http://neven1.typepad.com/blog/2016/02/piomas-february-2016.html>

Average Arctic Monthly Arctic Sea Ice 79-13

<http://nsidc.org/arcticseaicenews/2015/10/2015-melt-season-in-review/>

Explanation

<http://nsidc.org/arcticseaicenews/>

CO<sub>2</sub> and Temperature Trends in Antarctica graph and explanation

[http://www.southwestclimatechange.org/figures/icecore\\_records](http://www.southwestclimatechange.org/figures/icecore_records)

Keeling Curve graph and lessons

[http://scrippsco2.ucsd.edu/history\\_legacy/keeling\\_curve\\_lessons](http://scrippsco2.ucsd.edu/history_legacy/keeling_curve_lessons)