

NASA's interactive Global Ice Viewer

<https://climate.nasa.gov/interactives/global-ice-viewer/#/>

NASA's interactive map, Global Ice Viewer, contains a massive amount of data regarding Earth's disappearing glaciers, sea ice, and continental ice sheets as a result of climate change. The interactive allows the user to easily navigate through a massive amount of data collected over many years by various NASA projects and other organizations. This site can be used to help students dive into one of the main effects of climate change as part of a unit. The interactive not only gives a lot of great visuals, but also many data points and graphs for better understanding of the variables associated with losses in Earth's ice. For example, students can watch a time lapse video of satellite data showing ice cover in the Arctic, which is overlapped by the graphical information showing square kilometer versus year. Information regarding how the data was collected is also shown. This can further enhance lessons on climate change and solidify the importance of collecting data in science in order to gain a better understanding of global issues.

I really like this resource for my high school students for many reasons. First, my students enjoy using technology. They like the visuals available with this interactive and the ease in which they can navigate around a lot of information. Second, the data provided can be very overwhelming. The information is presented very clearly and easy to understand even though there is a lot of information available on the topic of global ice loss. Finally, this resource is great because even though my students are in a land-locked state in the middle of the country, they begin to get a better global perspective on this major issue. They can 'zoom out' and see the issue is much bigger than just one localized area. They also trust NASA data and feel like they are getting information from a reliable source. Real world data helps my students connect on these very important issues. I like to show students that the issue of climate change is not just an opinion, but rather a scientific consensus determined with massive amounts of research and data collection.

This interactive can be used in a variety of different ways across many different disciplines. While analyzing what is causing the change in sea ice, trends in the data can be discussed and compared to other sets of data. This also allows students to make correlations to changes in the atmosphere, temperature, and human activity. The lessons could also include discussion of how environmental standards and laws can impact the data and ultimately the trends in the graphs. This allows for a connection to math concepts, history of human inventions and advancement, and biological and chemical sciences. The interactive could also be used in a digital design classroom to discuss the importance of presenting data in a visually appealing way.