

To the Ends of the Earth...and Back

Parker Liautaud, Arctic Expeditions California

***** Call to Action

Learn more about Parker's advocacy work as an environmental campaigner at One Young World. www.oneyoungworld.com



- Courage
- Curiosity
- Perseverance
- Determination
- Environmentalism

* Lessons Learned

Let your passion guide you, and remember that setbacks can be opportunities to become stronger.

When feeling overwhelmed by the task ahead, remember Ernest Shackleton's words: "Difficulties are just things to overcome."

When you see problems that need to be addressed, rather than waiting for someone else to intervene, think about what you could do to begin to solve them.

When you face frustrating circumstances in your personal life, try to think about how you could become involved in something larger than yourself.

Parker Liautaud is an Arctic explorer and environmental campaigner. By the time he was 17, he had already made three expeditions to the Arctic.

In 2010 he and Arctic explorer and environmental campaigner Doug Stoup made a well-publicized attempt to reach the geographic North Pole: it was Parker's goal to be the youngest person to ever set foot there. However, the weather conditions did not allow them to achieve their goal, and they had to abort the mission. Parker was deeply disappointed. But he didn't give up: and in 2013, he and Doug embarked on The Willis Resilience Expedition, a scientific and exploratory expedition aimed at reaching the South Pole to study climate change. On this expedition, they set a record for making the fastest human-powered trek from the coast of Antarctica to the South Pole, and in the process, Parker became the youngest man in history to complete the journey to the South Pole. Now, as a policy advisor to the White House Office of Science and Technology Policy, he is helping to address the challenges of climate change. Parker has been recognized by Time Magazine's 30 under 30. He has spoken at and been interviewed by such prestigious outlets as the World Economic Forum, TEDx, the United Nations Foundation, The Wall Street Journal, and the Clinton Global Initiative.

Language Arts

Write a research paper about the meaning of a 3-degree C increase in the temperature in Antarctica: What are the consequences of this increase? What is causing it? What can be done to stop it, or even reverse it?

Write a short story about what it would be like to be in an Arctic, or Antarctic, expedition at your age: How would you feel about it? What would you be excited about? What would your expectations be?

Working in groups of 3-5, create an informational campaign about the current situation in Antarctica. Your campaign must include videos, pictures, and written material (including two blog posts) about the situation at the South Pole.

**** STEM Activities**

The following lesson plans are from the National Museum of Natural History¹.

This <u>lesson plan on glaciers</u>² introduces students to the carbon cycle, the greenhouse effect, the impact of glacial melting on sea level rise, and feedback mechanisms. Students explore the issues and impacts of climate change associated with melting glaciers in polar regions by modeling the carbon cycle.

In this <u>lesson plan on teleconnections</u>², students analyze data to study how events and conditions in one location can affect the climate/weather in a distant location, especially the polar regions. Students use a spreadsheet to analyze historical data and determine El Nino and La Nina events based on their graphs.

In this <u>lesson on Arctic plants</u>⁴, students analyze the ability of these plants to absorb different wavelengths of light, and describe how this affects animals living in different biomes. Students analyze photos taken through various filters, and explore spectral data taken by satellites.

How much have glaciers melted in the last 50 years? Calculate the average rate of ice loss. Has the average rate of loss increased, decreased, or stayed the same over the years? Assuming the current trend continues, how long will it take for the world's glaciers to disappear? How do glacial lakes contribute to increased flooding in areas like Germany, the Alps, and the Third Pole? Sources: Bloomberg article⁵, ABC News article⁶.

X Sustainability Innovations

Climate change is drastically affecting the globe, but the Arctic, in particular, is being dramatically affected. This National Snow and Ice Data Center article⁷ highlights climate change, and maps the thermal effects in the Arctic. Why has the temperature increase in the Arctic doubled compared to the rest of the globe over the past 30 years?

In addition to the direct effect on glaciers and the environment, other ecosystems are also disproportionately affected by the drastic effects of climate change in the Arctic. This World Wildlife Fund article⁸ addresses the effects on those ecosystems, and explains how either positive or negative changes would further affect these ecosystems.

Watch this <u>video</u>⁹ of Parker explaining his journey from exploring the South Pole to serving as a policy advisor for natural resources at the White House Office of Science and Technology Policy. What is a policy advisor? How can Parker assist in the fight against climate change?

Sustainability Career Pathways

Policy Advisor. Policy advisors research and analyze policies in various fields, and help make recommendations for policymakers, government agencies, schools, businesses, think tanks, and so on. Do you love research and analysis? <u>Learn more about being a policy advisor here¹⁰.</u>

Explorer. There are parts of the world still to explore--from Antarctica to the bottom of the ocean -- and many scientific discoveries still to be made. One can be a geographic explorer, a scientific explorer, an archaeological explorer, or even an explorer who explores

new destinations and writes about them for travel agencies and magazines. Learn more about being an explorer here 11.

Climatologist (Climate Scientist). Climate scientists devote their careers to better understanding the scope, causes, and effects of the climate crisis--and communicating these to others. Want to become a climate scientist? Here is an introduction to the field 12.

Actuary. Because of climate change, insurance is a rapidly changing business. It is also an industry that is helping to shape the climate discussion. Actuaries help calculate the risks and payouts for insurance policies. Curious? Check out this article on being an actuary, and five other interesting jobs in the insurance industry.¹³

¹ https://www.amnh.org/

² https://www.amnh.org/learn-teach/curriculum-collections/polar-climate-change-lesson-plans/why-are-the-glaciers-melting

 $^{3\} https://www.amnh.org/learn-teach/curriculum-collections/polar-climate-change-lesson-plans/teleconnections$

 $^{4\} https://www.amnh.org/learn-teach/curriculum-collections/polar-climate-change-lesson-plans/is-it-getting-greener$

 $^{5\} https://www.bloomberg.com/news/articles/2021-04-28/glaciers-are-melting-more-rapidly-risking-floods-and-droughts$

⁶ https://abcnews.go.com/International/risk-flooding-melted-glaciers-increase-climate-warms-study/story?id=77505422

⁷ https://nsidc.org/cryosphere/arctic-meteorology/climate_change.html

 $^{8\} https://www.worldwildlife.org/pages/six-ways-loss-of-arctic-ice-impacts-everyone$

⁹ https://www.youtube.com/watch?v=i1YzSt1uVys

¹⁰ https://www.zippia.com/policy-advisor-jobs/

¹¹ https://careertrend.com/list-6317181-types-explorer-jobs.html

¹² https://www.environmentalscience.org/career/climatologist

¹³ https://americasprofessor.com/general/6-profitable-and-interesting-jobs-in-the-insurance-industry/