CITIZEN DATA SCIENTISTS

Environment & Outdoors

THE ADVENTURE:

Citizen science projects are large-scale research projects that are conducted with the help of amateur scientists (that's you!) Citizen science projects range in topic from monitoring species populations to classifying music to identifying cities from space. Citizen science projects rely on non-experts to collect and/or analyze data.

Several citizen science projects have their data readily available on their websites. This data can give you a general sense of the issues that are present in your community. How is the monarch population holding up? Are people making use of your local park? Take a look at data for your area, or collect your own. Create a statistical summary of the current situation to answer any questions you have. What is being observed?

Now that you have a better idea of the problem, design a project that will create positive change for this situation. As a Company or Expedition Team, head out to tackle your project! Plant milkweed to promote the monarch population, or spruce up your local park to encourage more users. At the end of the season or next year, look at the data again. What changed?

SAFETY TIP:

- What precautions should you take when collaborating in an online community?
- There are many ways to interpret the same set of data. Let the data tell the story. How can you clearly summarize your analysis for others?
- How will you stay safe during your project?

ONLINE RESOURCES:

- List of citizen science projects
- The Awesome Power of Citizen Science
- Top Ten Tips for Data Analysis to Make Your Research Life Easier!

For consideration:

- www.ontariobioblitz.ca
- shorelinecleanup.ca

PLAN:

- What citizen science projects collect data in your area? How will you gain access to their data?
- How will you collect the data?
- What question do you want to answer about the data?
- What tool(s) will you use to analyze the data?
- How will your Company or Expedition Team make change in your environment?
- What resources will you need for your project?
- How often is data gathered for this citizen science project? What time points will you compare? How will you know if anything changed?

DO:

- Gather the data from your chosen source and answer any questions you have.
- Go out and make change in your community!

REVIEW:

- What do you know now that you did not know before?
- How did you use the data to answer your questions?
- How did the data inspire your project to make a change in your local environment?
- What changes did you observe over the season or year?
- What did you like about this adventure? What did you not like? How would you do this adventure differently?
- What elements of STEM were in this adventure? Science? Technology? Engineering? Mathematics?