

Feeling chilly? How about living in The Cryosphere?
What is that, you say? Read on....

All “bullets” below are prompts for things you will do as part of this lesson

Tour the Cryosphere (the places where water is in its solid form, frozen into ice or snow) with this 7.5 minute NASA video! <http://svs.gsfc.nasa.gov/cgi-bin/details.cgi?aid=3181>

- Take notes on the video while watching - pause and replay as you need
- Read and view more about the Cryosphere here:
<http://insidc.org/cryosphere/allaboutcryosphere.html>

Many animals have adaptations that allow them to live in extreme places.

- Name and draw three animals that you can think of that have adaptations that allow them to live in cold environments.
- Around your drawing list the adaptations that enable them to survive (eat, move about, keep from being captured, stay warm, etc.) and draw arrows to show where they are on your animal.

Create a new animal!

- Imagine you can guide the evolutionary process by yourself to create an animal yet unknown to science.
- Jot down some notes and sketches that such an animal would have (save notes)
- Now sketch out your animal, and as you did before, draw arrows and label the special features (all have to be biologically possible) that enable survival in an extreme cold environment.
- Name your animal including a “common name” such as Raven, and using binomial nomenclature also give it a Genus and species name, such as *Corvus corax* (for the Raven) More on binomial nomenclature here, if you’re still not sure what that means watch this video
<http://study.com/academy/lesson/binomial-nomenclature-definition-classification-system.html>
- Add some environmental details to your sketch; what does this animal’s habitat look like?
- Now, as a field guide would, list some details of the new animal - what does it eat? What eats it? How does it find food? Is it a solitary or social (lives in groups) animal. Is it nocturnal or diurnal?
- The last step is to write a story about a day-in-the-life of your new animal