This family lives in a region that used to have fresh water available through wells (water from under the ground or surface). However, their water has become contaminated by pollution. They live in a tropical climate that receives high levels of precipitation (rain and snow) throughout the year. Design the family a system that will help them get clean drinking water.

This family’s water well has completely run dry. They used to get all of their drinking water directly from this well. They have lived in this desert region for all of their lives and have never been this thirsty. Design this family a system that will help them become less thirsty once again.

This community lives on top of a hill. The water table (meaning the elevation of the water) is really low, almost as close to the valley where the river is. This makes drilling a well to bring up the water difficult and expensive. The valley below has a nicely flowing stream through it. People from the community walk a long way down the hill to fetch water and carry it all the way back up the hill for their water needs. This is such a long and hard process! Design a system to help the community get water more easily.

This family lives high in the mountains and has watched the nearby ice glaciers begin to melt at alarming rates due to increases in global temperatures and climate change. Melting glaciers are sending more and more water into the local rivers, causing flooding and increased sediment and pollution into the water sources. This family seems to have too much water, and sadly, all of their water is filled with more and more sand and pollution. Design a system to restore the quality of their drinking water.

This community lives in a region that has clean water sources. However, there are just too many people living in the area for the water sources to provide enough clean drinking water for everyone. The community is in a coastal region by a saltwater ocean. Design a system for the community that could help them provide enough clean drinking water for so many people.