



You live on a high, volcanic island with cliffs that dive down hundreds of feet to meet the shore. Your fellow islanders have become very frustrated by how much time they have to spend scaling the cliffs, up and down everyday, just to get to their sailboats on the water.

Using the available materials, can you build a system that can easily transport you and your fellow islanders from the top of your island to the shore and back?

What will your system look like?

What type of pulley do you think will be the best to use?



You live on a continental island, with a very bay separating your island from the mainland. Your fellow islanders want to visit their friends and family on the mainland, but the current bridge always goes underwater during high tide. **Using the available materials, can you build a structure capable of helping your fellow islanders cross the bay quickly and safely during high tide?**

What will your system look like?
What type of pulley do you think will be the best to use?



You and your fellow islanders live on an archipelago, a collection of small islands. Each island on this archipelago makes their own special type of fashion accessory, and they want to start trading them with each other!

Using the available materials, can you build a system that can help you trade supplies with the neighboring islands in your archipelago?

What will your system look like?

What type of pulley do you think will be the best to use?



You live on a tropical island, which is home to many other species of animals and insects. As your island becomes more populated, your fellow islanders are finding that animals and insects are sneaking into their food storage and eating their food!

Using the available materials, can you build a system that can help protect your food from getting eaten by island animals?

What will your system look like?

What type of pulley do you think will be the best to use?

