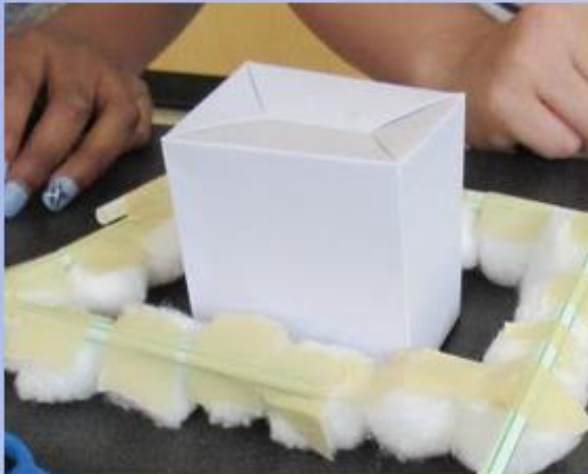


STEM: Beat the Flood

Introduction

Floating houses are permanently in the water, while amphibious houses are situated above the water and are designed to float when the water levels rise. If the water level rises, they can move upwards and float. The fastenings to the mooring posts limit the motion caused by the water..



Your Challenge!

Design a home for your community on a low lying Island able to withstand the effects of flooding, and make a model of your design so you can test it.

Reflection Questions

What should I do first?

Is something confusing me?

Could I explain this to someone else?

Where can I look for help?

How can I do it better?

Can I explain the importance of each part?

Do I know why it might be important to think about floating houses?

Things to think about

- How will you make your house float?
- How will you cut down on the weight of the house?
- How are you going to provide your house with electricity?
- How are you going to make sure your house doesn't float off?
- How will you provide your house with clean water?

Go on Youtube and look at how to build rafts as this will give you ideas and some interesting materials to use for your floating house.

Draw your design and make sure you label your drawn design with:

1. Materials you plan to use – think about materials you can find around the house or buy in the shops during the week.
2. You will aim to build and test your house at a later date so please ensure you have the materials at home or you can get hold of these materials.
3. Next to each material briefly explain why you have chosen this and how will it help make your house float or provide your house with water. Aim to use any scientific knowledge/vocabulary that you found out.

I have chosen wooden lollipop sticks as the flooring/decking of my house because I know that wood has more buoyancy than water meaning that it will float on the surface. This is because wood has a high air content and air is very buoyant

Maybe you could research which certain materials float more than others to include interesting information!

Don't forget, that your house must be able to collect and use clean water, so think how this can be done.