

PROJECT!

LAKE-TOP LIVING

What happens when a lake grows and shrinks according to the season? How do people live and work on a lake that's always moving its shores? Residents on Tonlé Sap in Cambodia solved this problem by building a floating village. Imagine you are building a brand new floating village. What do you think would be good building materials? Use the scientific method to think about different ways to make a cardboard structure float.

1 Make a plan for a floating house in your science journal. Brainstorm how you will make your house float. This is the design phase of the project. Be creative! How big do you want to make your buildings? How will you connect pieces of cardboard to build your lake-top village? What kinds of buildings will a floating village need?

2 Add water to the plastic bin. Experiment with how to make your floating village actually float! Before building the structure out of cardboard, practice making some floating platforms and test them in water to see if they will float. Make any changes that you think will improve the design. Use the scientific method to determine the best way to attach the buildings to the floating platforms.

3 Build the buildings out of cardboard and tape. Before you place the buildings on the floating platforms, make sure you are confident that the buildings won't sink! Consider the weight and shape of the buildings and how well they will be supported by the floating platforms.

SUPPLIES

- * building supplies such as empty water bottles, lengths of pool noodles, and strips of bamboo
- * packing tape
- * cardboard
- * large plastic bin or kiddie pool
- * water



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4 Time to test your floating village! Place each building and its floating platform into the tub or pool. The water level should be low. Next, start filling up the tub or pool with more water to simulate the rising lake levels of the wet season. Try to keep the buildings dry as you add more water—add it slowly and close to the surface of the water.

THINK ABOUT IT: How did your floating village turn out? If you could do something differently next time around, what would it be? Why? What challenges do you think the people living on Tonlé Sap face in their day-to-day life living on a lake?

THE RISE AND FALL OF TONLÉ SAP

Tonlé Sap is a large lake in Cambodia. During the rainy season, the lake swells to its largest size, up to 45 feet deep and about 4,000 square miles. That's almost seven times the size of Houston, Texas! But during the dry season, it shrinks to about 1,000 square miles and is just about 7 feet deep. Residents there have built a floating village. Homes rise up along with water levels and sink back down during the dry season. Tonlé Sap is a difficult place to live. Many of its residents rely on fishing to support their families, which can be dangerous work. Many people live in poverty. But there is also a strong community spirit that matches the magic of a floating village on a rising and falling lake.



PS

You can see some of the places and people of the floating village in this video.

KEYWORD PROMPTS

Tonlé Sap video

