Tsunami: It'll Tide You Over

In this activity, you can create conditions that will produce your own tsunami wave, then you will understand much better how they are formed and the changes these giant tidal waves produce. This is a great experiment for a hot summer day because it's likely you will get very wet! So either wear your old clothes, or be very careful.

**What to do:** Fill the pan with water, then place the blocks of wood in the bottom of the pan so they are completely below the surface of the water. The object of this experiment is to rapidly compress, or squeeze, the water between the blocks.

So, take hold of the blocks and quickly bring them together. Do it again, and again. Continue the squeezing action until the blocks can no longer compress the water.

**What happens:** The movement of the two blocks coming together rapidly under the water forces swells of water to the surface, where they form waves that splash over the sides of the pan.

**Why:** The action of the blocks and the water in this experiment is similar to the conditions in the ocean depths that produce tsunami tidal waves. Great earthquakes and volcanic forces on the ocean floor cause large amounts of ocean water to be compressed, or squeezed together, and pushed to the surface. There, great walls of water are formed and threaten nearby coastal cities. These great waves sometimes reach heights of 50 to 100 feet (15 to 30 m). Because they form so suddenly and without warning they are extremely dangerous and often kill many people.

**YOU NEED**
- deep baking pan
- water
- two bricks or blocks of wood