

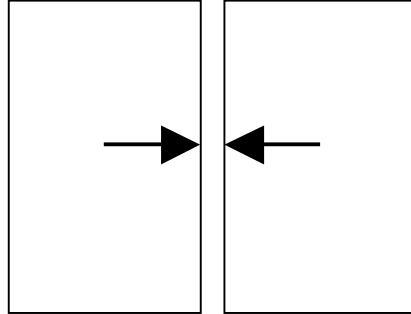
Simulating Plate Tectonics

Name:

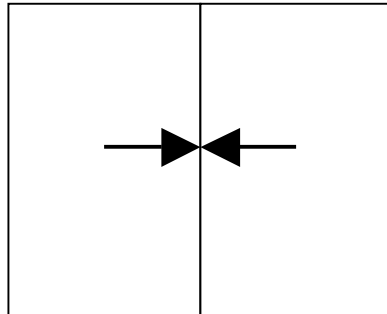
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What would happen if you tried sliding two unsmooth edges by each other?

You are now going to find out the answer to the question above. Instead of using rocks for our example plates we are going to use pieces of wood that have sandpaper pasted on them. Notice that the wood blocks have arrows on them that should line up (see the picture below).



Take one of the wood blocks in each hand and hold the blocks together so that the arrows on each side line up with each other like the picture below.



After you have lined up the arrows, continue holding one block in each hand and place the blocks so that they are resting on a flat surface (with the arrows on the side). Make sure you have a tight grip on each block and start to push the blocks toward each other. Start out lightly pushing the blocks together and gradually increase the pressure you are putting on each block. Now keeping the blocks pushed together, try moving the right block away from you, while pulling the left block towards you.

What happens?

Describe the way in which the blocks moved (Was it slow or fast? Did the blocks slide smoothly or jerk around?) Include any changes in the positions of the arrows. Be as descriptive as possible about how the blocks moved.

When did the blocks move? When the pressure you were using was high or low?

Why do you think the two wood blocks moved like they did when you pushed them together?

What type of fault or plate boundary would the two triangular wood blocks represent?

Draw a diagram that shows the position of the wood blocks before and after they moved. Include the arrows on the sides of the blocks and show the direction that the blocks moved after you pushed them.

If the continental plates really moved like this, what do you think the effects would be on the surface? What would we feel?

Do you know of anything in nature that might cause similar effects?