

## Convergent Boundaries—Continent to Ocean

Name:

Period:

*This exercise will help you see what happens to Earth's crust at convergent boundaries.*

Step 1—Get the 2 pieces of paper that you will use to make your block model.

Step 2—Color the different layers on the block and on the top piece, using the colors listed in the coloring key. The key will end up being on the bottom of your block. Color the thin “fingers” coming up through the granitic continental crust orange .



Step 3—Cut out the block and the top piece. Fold along the dashed lines. Get the top piece and glue the end marked A to the tab marked A on the block. DO NOT GLUE ANY OTHER TABS. You will need to be able to fold it up again and keep it in your binder.

Step 4—Lay out your 5 map pieces again, along with your other convergent block pieces.

Step 5—Use the information from the 5-piece map and the blocks to answer the questions below.

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1. What is made in the ocean when a piece of oceanic crust goes under a piece of continental crust?

*Hint: read the side of the block.*

2. What release of energy is very common in areas where one piece of crust goes under another?

*Hint: read the side of the block.*

3. What are the orange “fingers” rising up through the granitic continental crust made of? *Hint: read the side of the block.*

4. What is formed by magma when a piece of oceanic crust melts? *Hint: read the side of the block.*

5. Remember that each tiny black dot printed on your map represents where earthquakes have happened. Where on your map do you see lots of earthquakes in a thick line along the edge of a continent?

6. The grinding together of pieces of crust makes a lot of earthquakes over a wide area. How does plotting earthquakes help to determine continent-to-ocean plate boundaries?

7. Why wouldn't you expect to find continent-to-ocean convergent boundaries in the middle of a continent, or in the middle of the ocean?