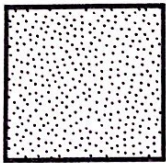


Wegener's Puzzling Evidence

DIRECTIONS:

1. Label the land masses on each sheet. Color the fossil areas to match the legend below.
2. Cut out each of the continents along the edge of the continental shelf (the outermost dark line). Alfred Wegener's evidence for continental drift is shown on the cut-outs. Wegener used this evidence to reconstruct the positions of the continents relative to each other in the distant past.
3. Try to logically piece the continents together so that they form a giant supercontinent.
4. When you are satisfied with the 'fit' of the continents, discuss the evidence with your partners and decide if the evidence is compelling or not. Explain your decision and reasoning on the evidence.

Key to Wegener's Puzzling Evidence - Fossils



The continent is surrounded by the continental shelf (stippled pattern), which extends beyond the continent until there is a large change in slope.



By about 300 million years ago, a unique community of plants had evolved known as the European flora. Fossils of these plants are found in Europe and other areas. Color the areas with these fossils yellow.



Fossils of the fern *Glossopteris* have been found in these locations. Color the areas with these fossils green.



Fossil remains of the half meter-long fresh or brackish water (reptile) *Mesosaurus*. *Mesosaurus* flourished in the early Mesozoic Era, about 240 million years ago. *Mesosaurus* had limbs for swimming, but could also walk on land. Other fossil evidence found in rocks along with *Mesosaurus* indicate that they lived in lakes and coastal bays or estuaries. Color the areas with these fossils blue.



Fossil remains of *Cynognathus*, a land reptile approximately 3 meters long that lived during the Early Mesozoic Era, about 230 million years ago. It was a weak swimmer. Color the areas with these fossils orange.



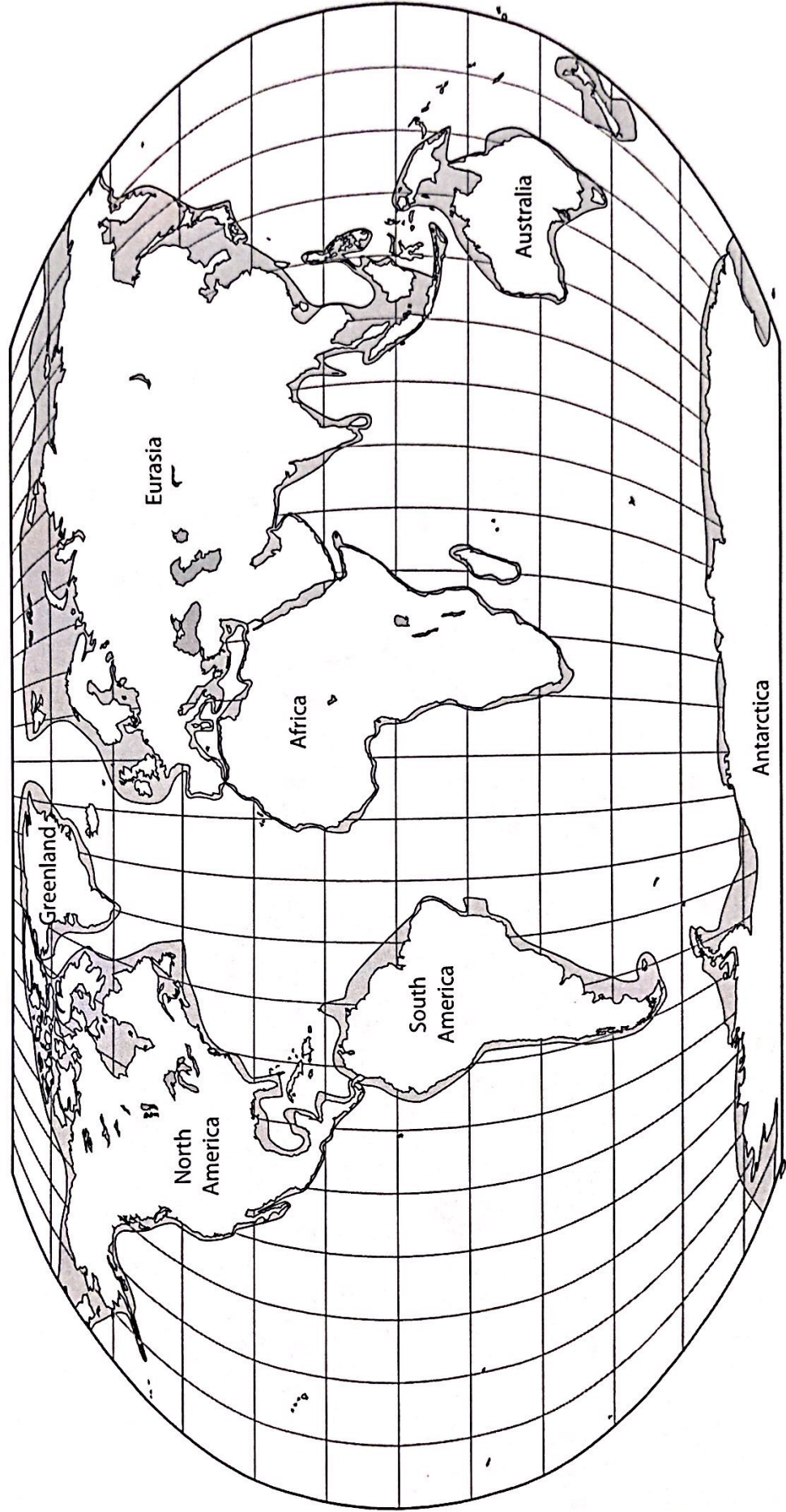
Fossil evidence of the Early Mesozoic, land-dwelling reptile *Lystrosaurus*. They reproduced by laying eggs on land. In addition, their anatomy suggests that these animals were probably very poor swimmers. Color the areas with these fossils brown.



The World Today

This map shows the continents as they appear today. Most of the continental land masses lie above sea level, but the true edges of the continents are not at the shoreline. The gray areas on this map show the relatively shallow water that covers the fringes of the continents. These sea-covered borders are known as CONTINENTAL SHELVES (gray areas). The margins of the continental shelves mark

the true edges of the continents. This map shows the continents as they appear today. Most of the continental land masses lie above sea level, but the true edges of the continents are not at the shoreline. These sea-covered borders are known as CONTINENTAL SHELVES. The margins of the continental shelves mark the true edges of the continents.

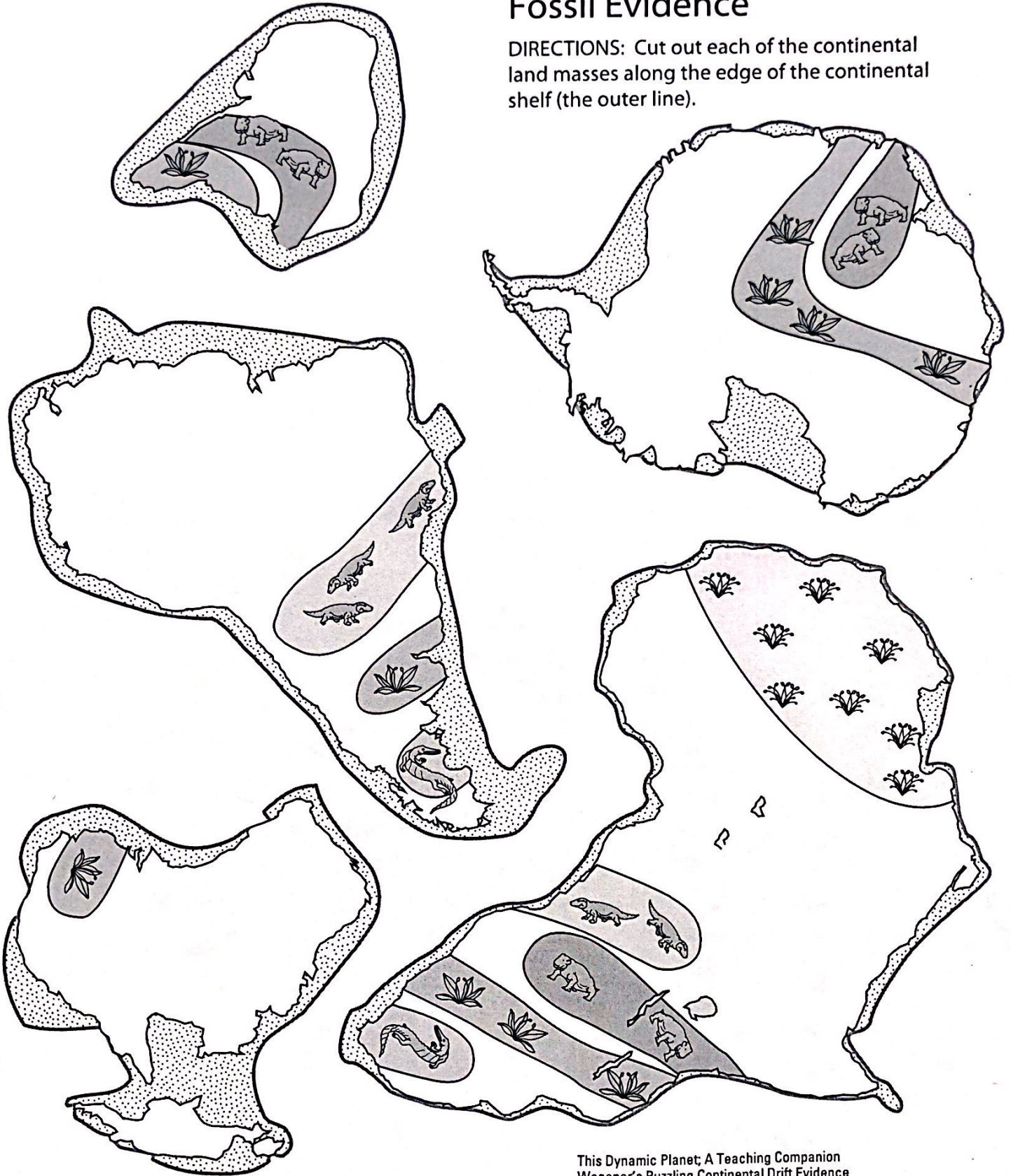


This Dynamic Planet: A Teaching Companion
Wegener's Puzzling Continental Drift Evidence
U.S. Geological Survey, 2008
For updates see <<http://volcanoes.usgs.gov/about/edu/dynamicplanet>>

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Fossil Evidence

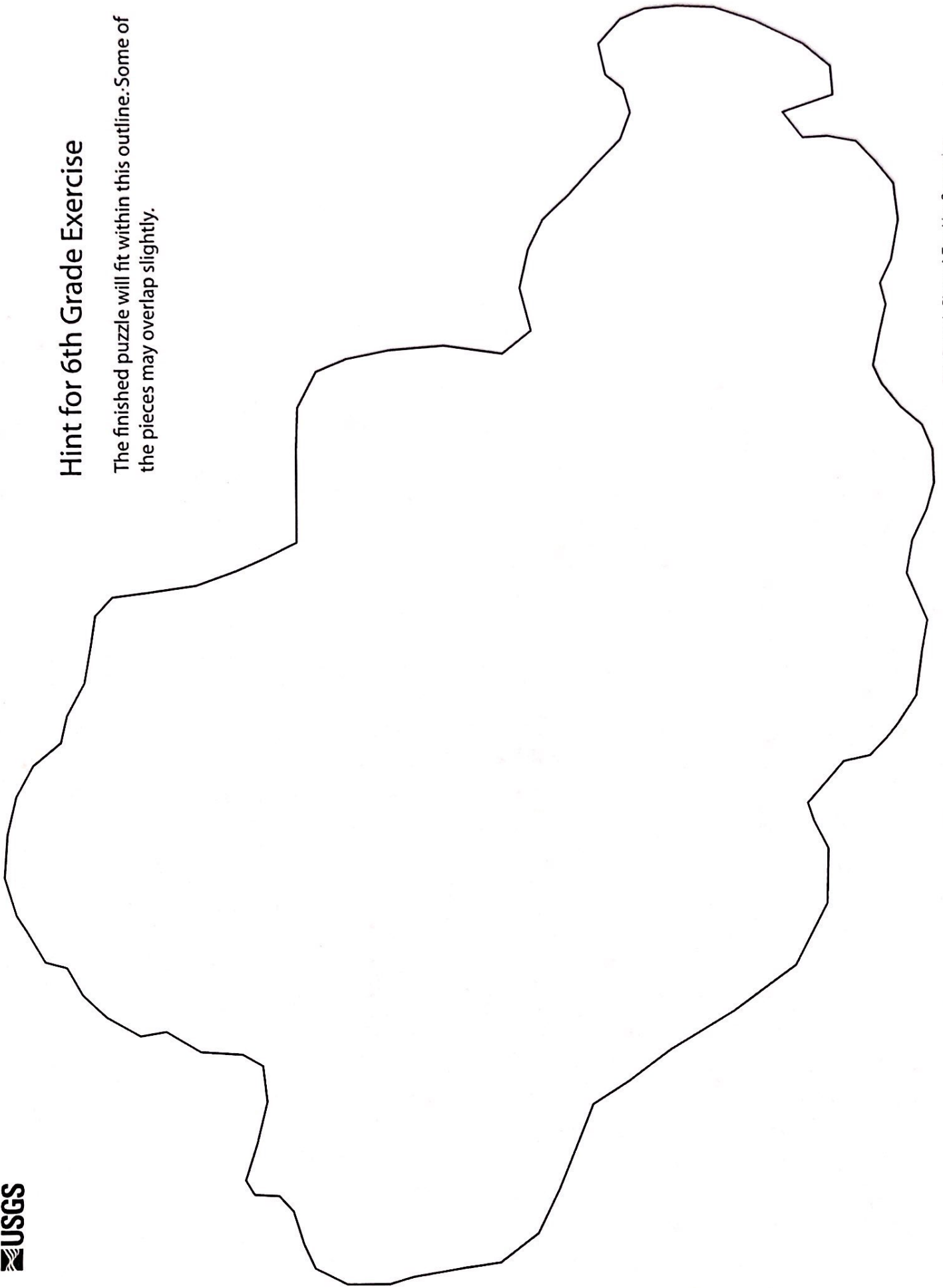
DIRECTIONS: Cut out each of the continental land masses along the edge of the continental shelf (the outer line).





Hint for 6th Grade Exercise

The finished puzzle will fit within this outline. Some of the pieces may overlap slightly.



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