



30 mya

F 17



20 mya

F 18



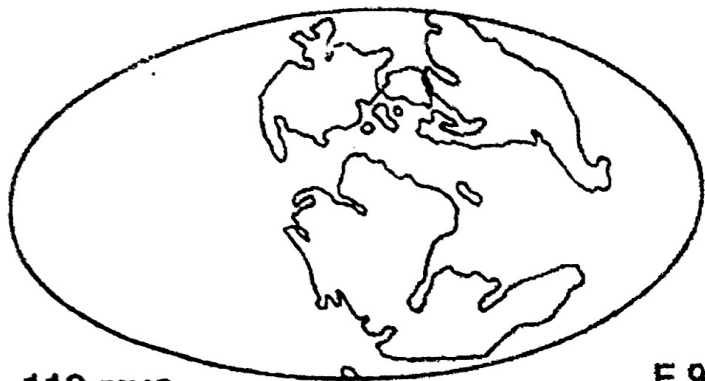
10 mya

F 19



Present

F 20



110 mya

F 9



70 mya

F 13



100 mya

F 10



60 mya

F 14



90 mya

F 11



50 mya

F 15



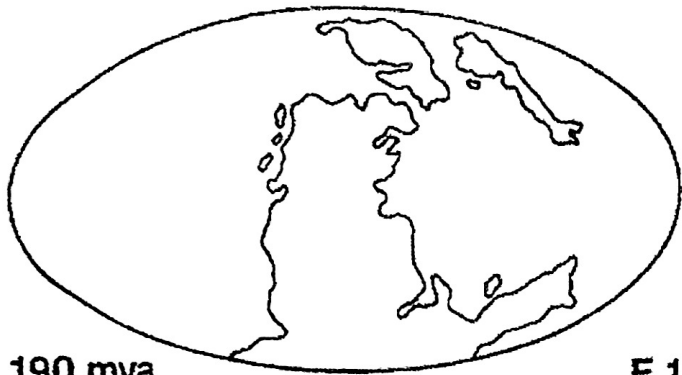
80 mya

F 12



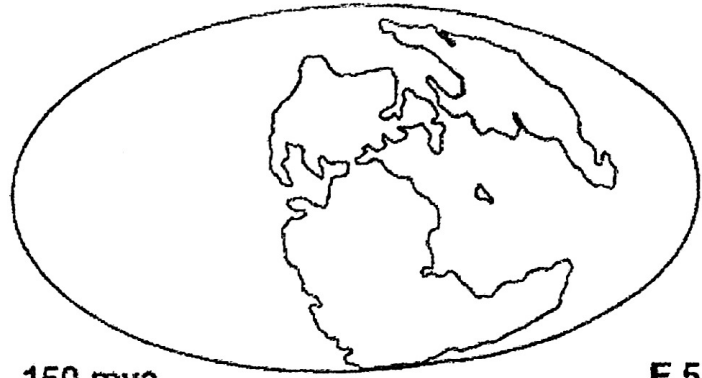
40 mya

F 16



190 mya

F 1



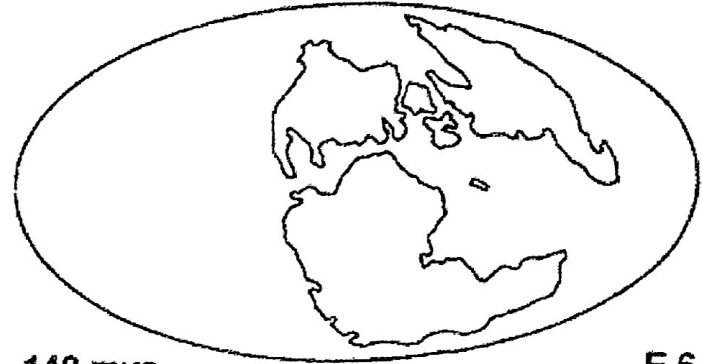
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F 5



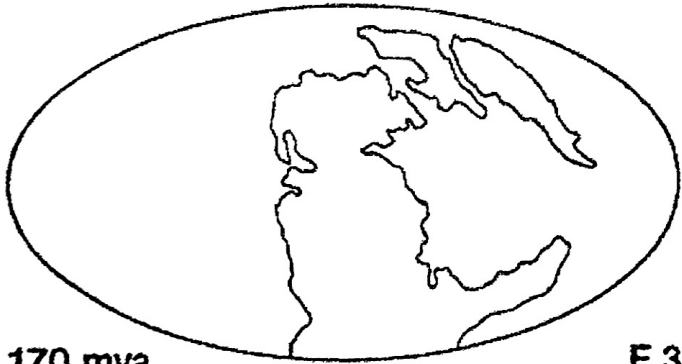
180 mya

F 2



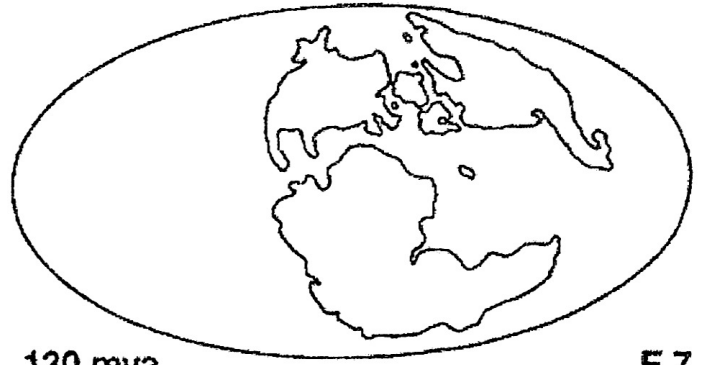
140 mya

F 6



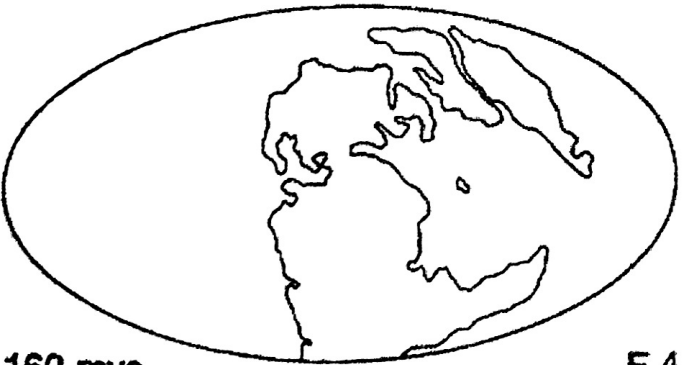
170 mya

F 3



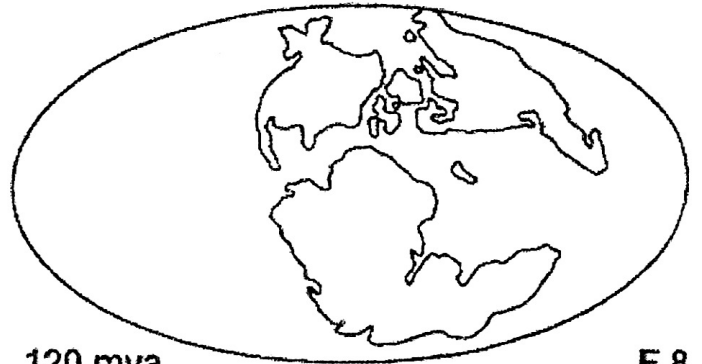
130 mya

F 7



160 mya

F 4

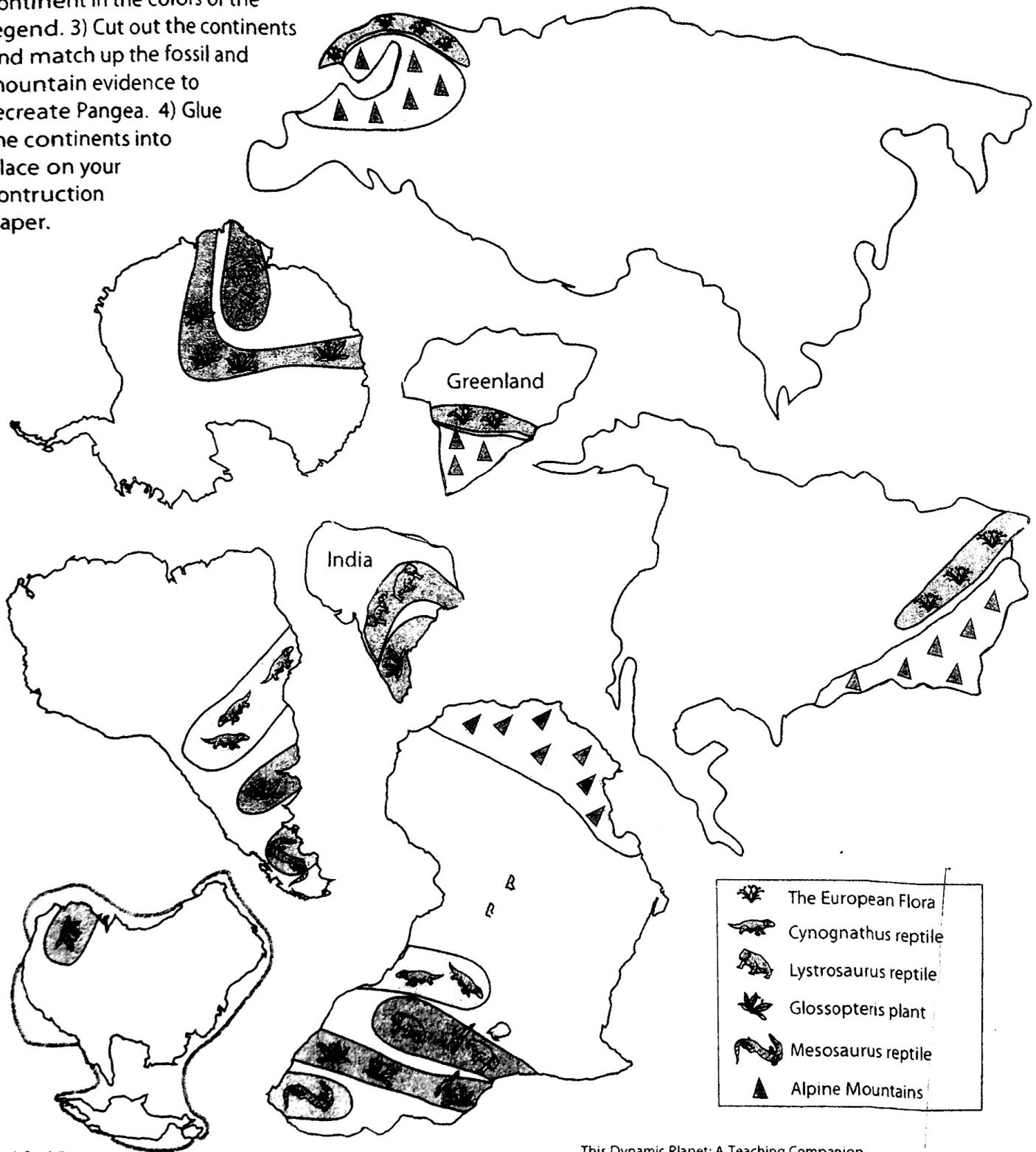


120 mya

F 8

USGS Fossil and Mountain Chain Evidence

DIRECTIONS: 1) Label each continent with its name.
 2) Color the fossils or mountains in the legend and color the symbols on each continent in the colors of the legend.
 3) Cut out the continents and match up the fossil and mountain evidence to recreate Pangea.
 4) Glue the continents into place on your construction paper.



Modified From:
 U.S. Department of the Interior
 U.S. Geological Survey

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>>

Continental Drift Activity Packet

Name _____

Instructions:

You will be piecing together a puzzle of the supercontinent Pangea based on fossil and rock evidence on the present day continents.

1. On the puzzle pieces handout, assign a color to each type of fossil or mountain belt in the legend and color the areas on the landmasses according to the legend.
2. Use scissors to cut along the borders of the continents. These are the approximate shape of the continents after Pangea broke up.
3. Place the continents on a piece of construction paper and move them around using the fossil and mountain chain evidence to match the continents together in the position they were in when they were part of Pangea. The pieces may not fit together exactly!
4. When you have assembled Pangea based on the fossil and rock locations, glue the continents onto your construction paper in the shape of the supercontinent. Glue the legend to your puzzle.

Questions:

1. What is the idea of Continental Drift?
2. Which 2 continents have the most obvious fit of the coastlines?
3. How were the fossil symbols and mountain belts helpful in deciding where to move the continents?
4. Why don't the present shapes of the continents fit perfectly into a supercontinent?
5. Which fossil occurs on the most landmasses? What does this suggest about when these particular continents broke up?

Evidence or Not?

On the Analyzing Evidence worksheet, read the statement in each box and check whether the statement is evidence or not in the left columns, and whether it supports the movements of the continents in the right columns.

Pangaea Flip Book Station

Directions: In this station, you will be creating a flipbook to illustrate the movement that created the continents we have today.

First: Cut out each of the boxes. Make sure to keep them in order!

Second: Stack all of the cards, with the supercontinent on the top and “present” on the bottom.

Third: Staple your cards together. Flip them and watch as the continents move! Then, answer the questions below.

Questions: Please answer the following questions in **complete sentences**. If you have time after this station is complete, you can color the continents of your flipbook.

1. What event began to occur about 190 million years ago?
2. In which frame did you locate the first appearance of the following landmasses:
North America? Australia? India?
Europe? Antarctica?
3. In which frame did you locate the final breakup of Pangea? Why did you choose that frame and not another?
4. Sometimes when two plates collide, the landmasses (continents) within the plates are pushed together and a mountain range can form. Using a world map, identify two locations where mountain ranges exist and where you hypothesize plate collisions between continents or parts of continents have occurred. Use your flipbooks to confirm your hypothesis. (Note that not all present-day mountain ranges were formed by continental collision events or by plate convergence that occurred during the last 190 million years.)
5. If mountain ranges can form where plates are colliding, what would you hypothesize might occur where plates are separating? Apply your hypothesis to identify locations on a world map where plates might be separating (both oceanic and continental lithospheric plate divergence zones can be identified on the map and in the flip books).