

Continents Adrift: An Introduction to Continental Drift and Plate Tectonics

Name: _____

Date: _____

1. A transform boundary exists where one of the Earth's plates _____.

(Check only one answer)

- ☐ slides past another plate
- ☐ crashes into another plate
- ☐ moves away from another plate
- ☐ dives beneath another plate

2. Which of these is NOT used as evidence that Earth's surface consists of plates that are in continuous motion?

(Check only one answer)

- ☐ earthquakes
- ☐ blizzards
- ☐ mountains
- ☐ volcanoes

3. What did scientist Alfred Wegener call the large supercontinent that once existed?

(Check only one answer)

- ☐ Eurasia
- ☐ Panamerica
- ☐ Pangea
- ☐ Ring of Fire

4. Which of these pieces of evidence did Wegener use to support his theory of continental drift?

(Check only one answer)

- ☐ subduction zones
- ☐ divergent boundaries
- ☐ seafloor spreading
- ☐ fossils from different continents

5. Seafloor spreading explains why _____.

(Check only one answer)

- ☐ materials circulate within the Earth's mantle
- ☐ the ocean has high and low tides
- ☐ one portion of the Earth's crusts dives beneath another portion
- ☐ the oldest part of the ocean floor is found farthest from the mid-ocean ridge

6. Scientists think that tectonic plates can move when _____.

(Check only one answer)

- ☐ materials circulate in the Earth's mantle
- ☐ high tide occurs
- ☐ magma is released from the mid-ocean ridge
- ☐ the lithosphere begins to melt

7. The rocky outer layer of the Earth is called the _____.

(Check only one answer)

- ☐ mantle
- ☐ atmosphere
- ☐ hydrosphere
- ☐ lithosphere

8. Energy released during an earthquake creates _____.

(Check only one answer)

- ☐ an overheated inner core
- ☐ a mid-ocean ridge
- ☐ an eruption of molten lava
- ☐ a seismic wave

9. The Ring of Fire refers to _____.

(Check only one answer)

- ☐ an active erupting volcano
- ☐ the volcanoes surrounding the Pacific Ocean
- ☐ the spreading that takes place on the ocean floor
- ☐ the land once known as Pangea

10. Mountains on the Earth's surface form in random locations, with no relation to the Earth's plates.

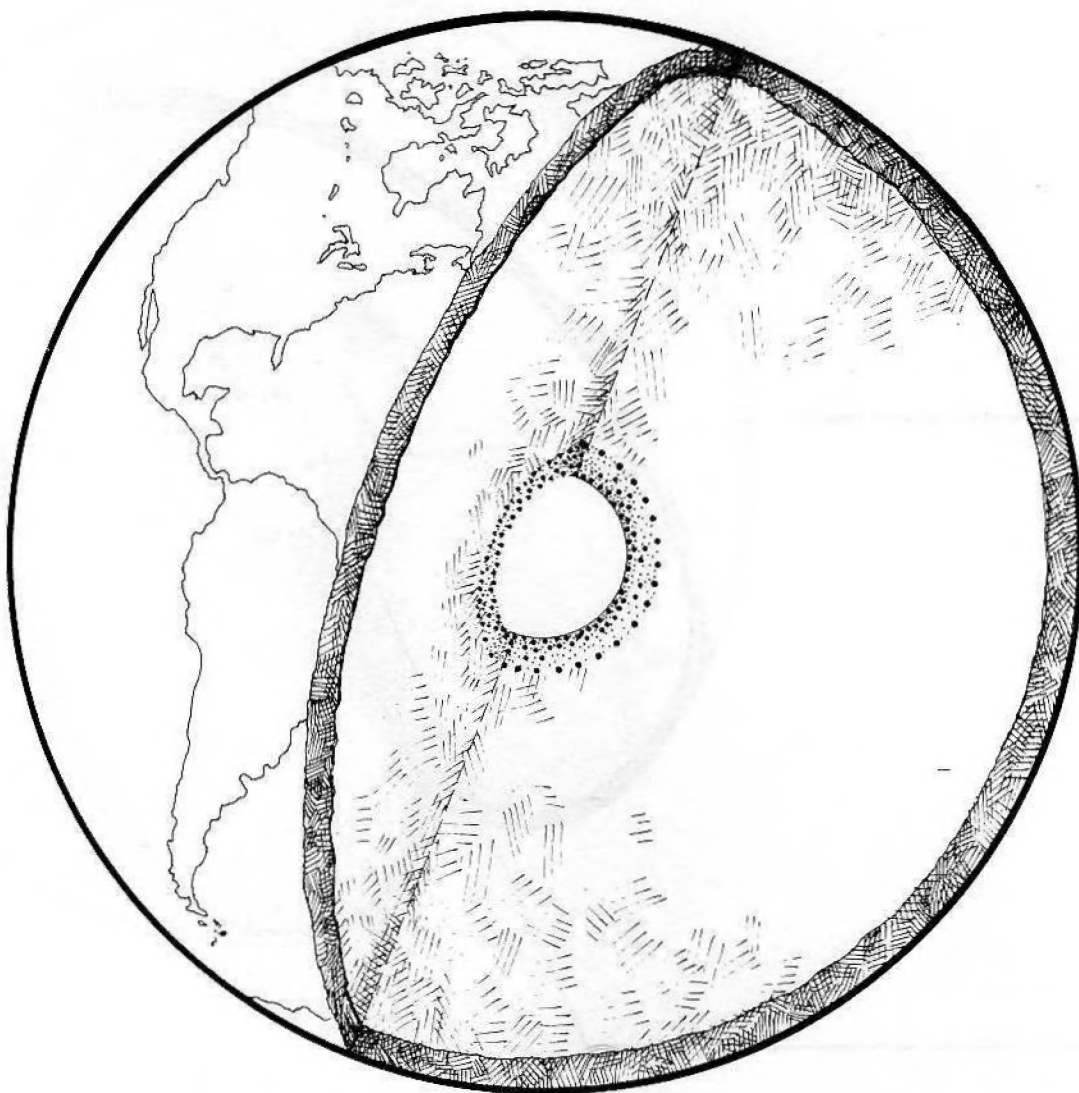
(Check only one answer)

- ☐ true
- ☐ false

The Center of the Earth

Name _____

The Earth has four layers. Color the layers of the Earth and the key.

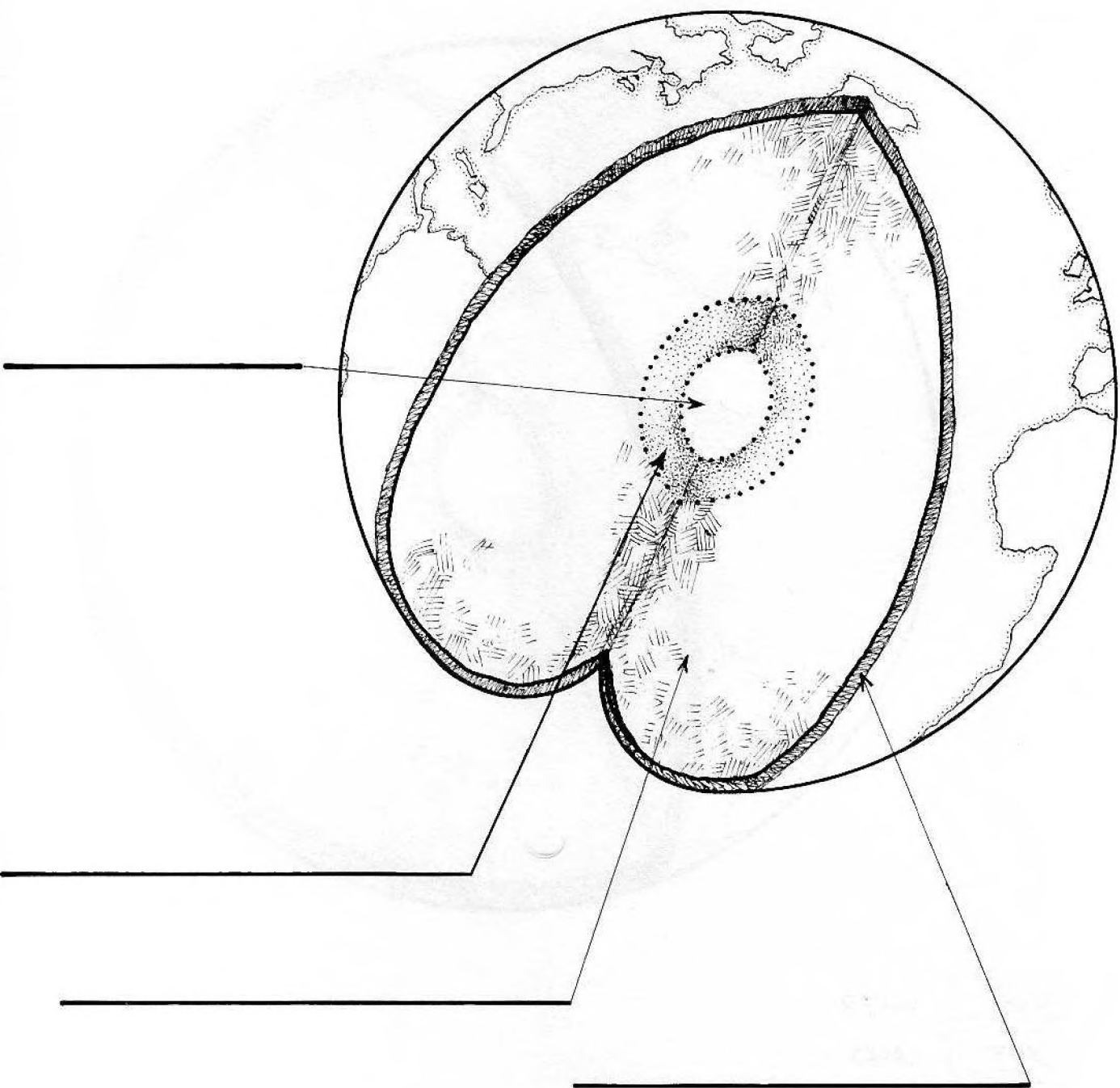


blue	WATER
green	LAND
brown	CRUST (5-70 km thick)
orange	MANTLE (3,000 km thick)
yellow	OUTER CORE (2,000 km thick)
red	INNER CORE (1,500 km thick)

Solid to the Core

Name _____

If you could take a slice out of the Earth you would find that it has four layers. Label each of these layers.



WORD BANK

crust
inner core

mantle

outer core

About 250 million years ago there was one continent called Pangaea (Figure A). By 45 million years ago the land mass split into seven land masses (Figure B). Label the land masses in Figure B.

Figure A

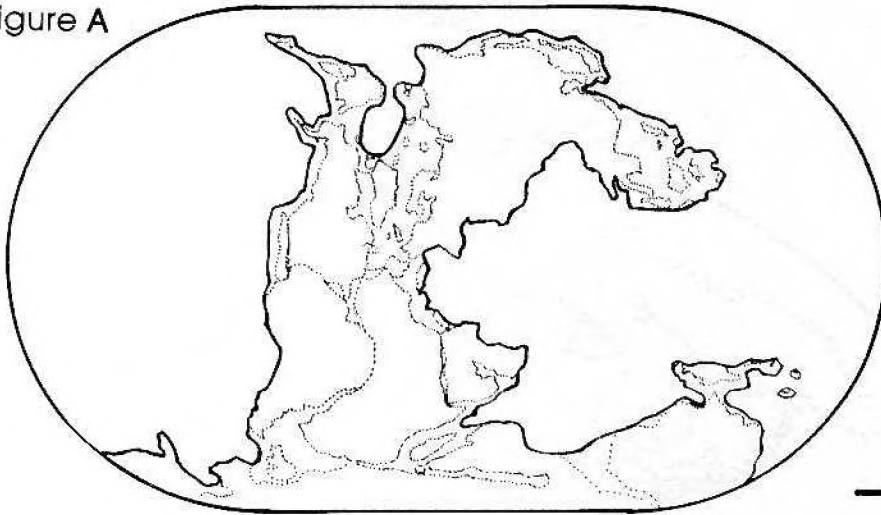
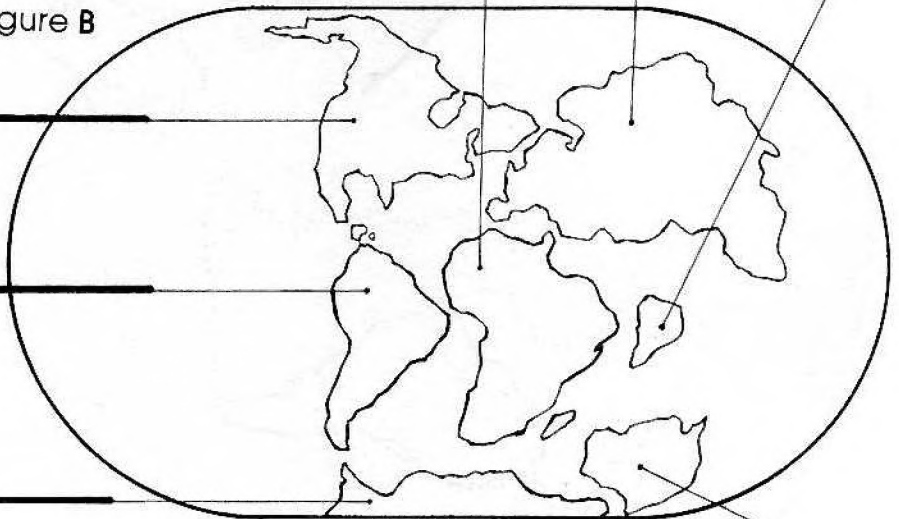


Figure B



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North America
Africa
Antarctica

South America
India

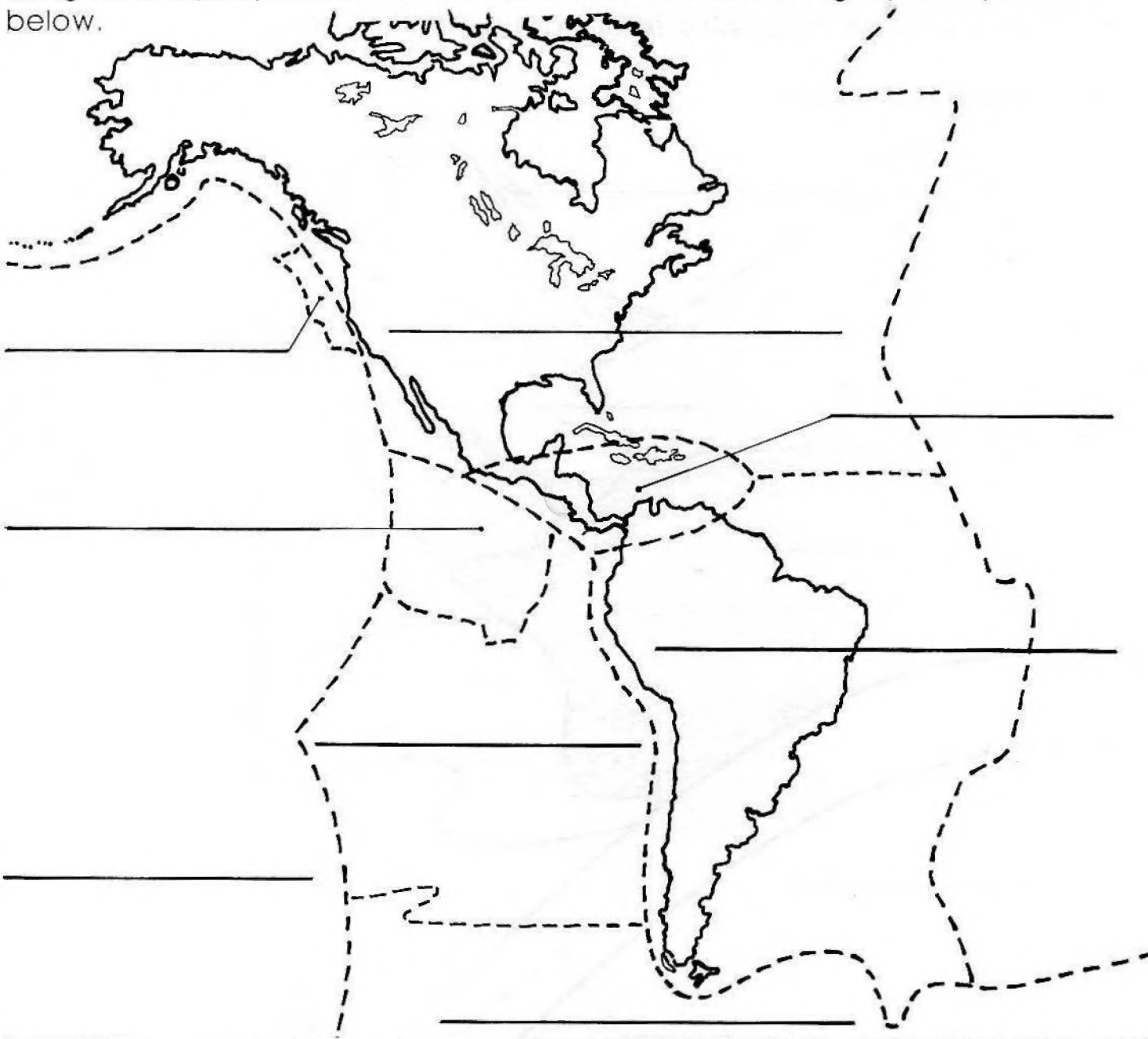
Eurasia
Australia

Earth's Moving Plates

Name _____

The Earth's crust is made of rigid plates that are always moving. The boundaries of some of these plates are along the edges of the continents, while others are in the middle of the ocean. The map on this page shows the major plates near North and South America.

Using an encyclopedia or some other source, label the eight plates pictured below.



WORD BANK

Gorda Plate
Pacific Plate
Antarctic Plate

North American Plate
South American Plate
Caribbean Plate

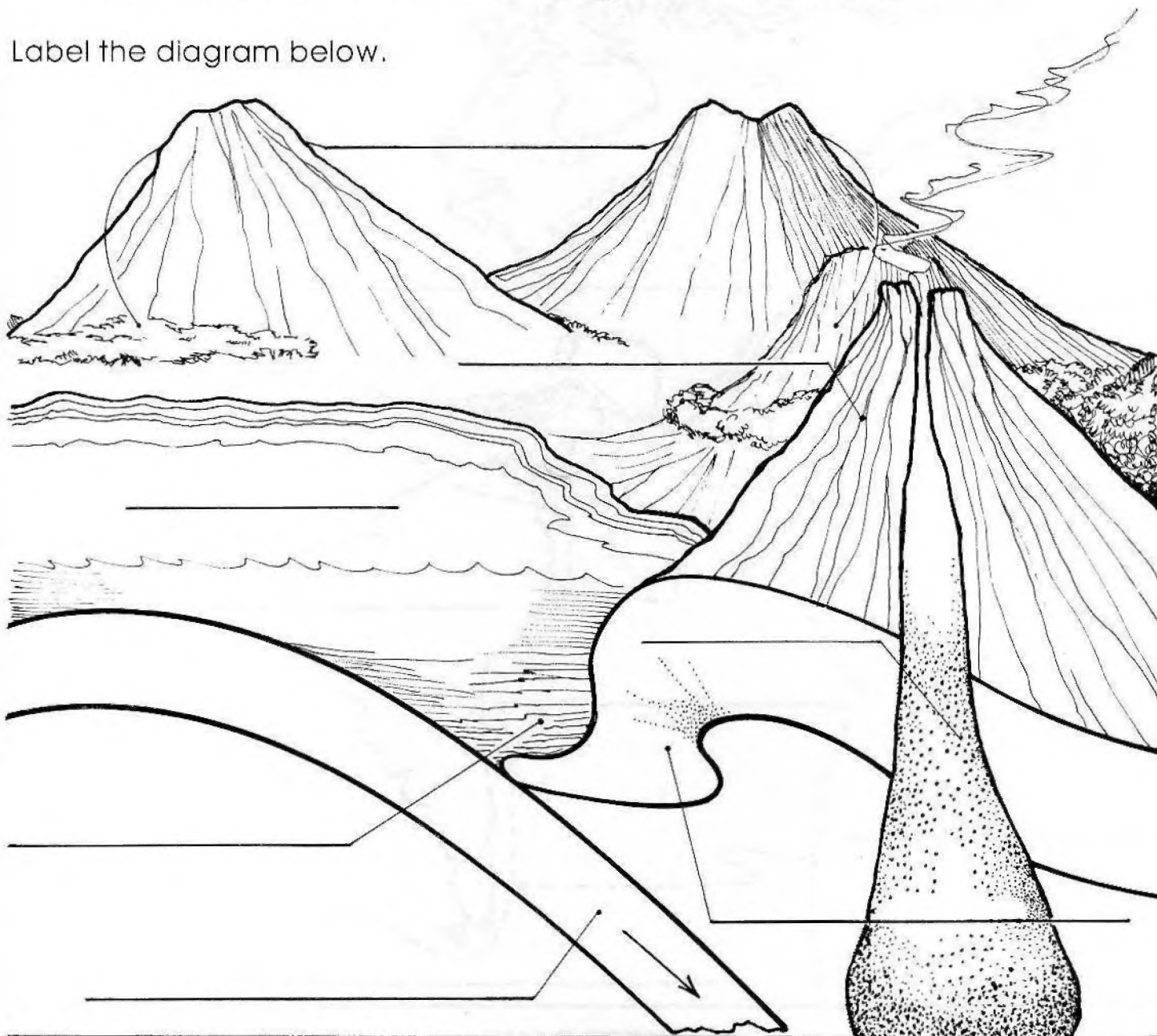
Cocos Plate
Nazca Plate

Bending the Earth's Crust

Name _____

According to the theory of plate tectonics, the earth's crust is broken into about twenty **plates**. These plates are slowly moving. The edges of some of these plates are moving toward each other. A **trench** is formed when one plate bends and dives under another. The diving edge then descends into the earth's hot, **mantle** and starts melting into **magma**. The magma can then rise and break through the earth's crust and burst out of a **volcano**. The edge of the above-riding plate crumples, resulting in a mountain range.

Label the diagram below.



WORD BANK

volcano

ocean
continent

trench
descending plate

magma
above-riding plate