

MAKING A MODEL OF CONTINENTAL DRIFT

WITH MOVING CLAY SECTIONS

Name: _____

Date: _____

Topic: Plate Tectonics



PURPOSE

To model how continents can move over time using moving pieces.



HYPOTHESIS

If the "plates" (clay pieces) move, then the continents on them will move to new positions.

Continental drift is the idea that Earth's continents were once joined together in a supercontinent called Pangaea and have moved to their current positions over millions of years.



MATERIALS

- Modeling clay (2–3 colors)
- Large tray or baking sheet
- Marker
- Ruler
- Index cards or sticky notes (optional)



PROCEDURE

1. **Make the Base:** Flatten a large piece of clay (one color) to fill the bottom of the tray. This is your "asthenosphere" (the layer that flows).
2. **Create the Plates:** Use a different color (or colors) of clay to make several large "plates." Cut them into shapes.
3. **Add Continents:** Shape smaller pieces of clay to look like continents. Place them on top of the plates.
4. **Mark and Observe:** Draw the edges of the plates and the position of each continent on the tray with a marker. You can add labels on index cards.
5. **Move the Plates:** Slowly push the plates in different directions. Let them bump, pull apart, or slide past each other.
6. **Observe the Changes:** Notice how the continents have moved to new positions.
7. **Record Your Results:** Sketch or describe the before and after positions of the continents.

WHAT YOU WILL DO

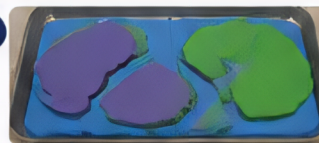
1



Make the base.

Flatten one color of clay to fill the tray.

2



Create the plates.

Add large clay pieces as moving plates.

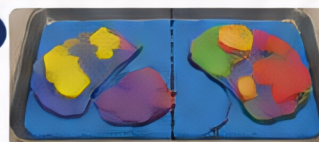
3



Add continents.

Place smaller clay pieces on the plates.

4



Mark and observe.

Outline the plates and label positions.

5



Move the plates.

Push the plates in different directions and see how continents move.



OBSERVATIONS

Sketch or describe what happened when you moved the plates.



REFLECTION

1. What happened to the continents when the plates moved?
2. How is this model like what happens on Earth?
3. What questions do you still have?



SCIENCE CONNECTION

This model shows how tectonic plates move. Over millions of years, this movement can cause continents to drift apart, collide, or slide past each other.