

The Sandpaper Globe

Materials: Globe on which the land is represented by sandpaper and water areas are painted blue; table or rug.

Preparation: Land & Water

Age: 3 +

Direct Aims:

1. To develop the concept of the shape of the earth.
2. To visualize the distribution of land and water on earth.

Indirect Aims:

1. To prepare for the Continent Globe.

Presentation:

1. Invite the child to work with you and unroll a rug.
2. Together go to the shelf where the Sandpaper Globe is kept.
3. Demonstrate how to carry the globe with two hands around the base.
4. Carry the globe and place it on the left side of the workspace.
5. Sit down with the child on your non-dominant side.
6. "For this work we need very sensitive fingers. So we always wash our hands first."
7. With the child go to the sink and wash hands.
8. Return to the rug together and sit down.
9. Say, "This is a *model* of the *earth*. A model of the earth is called a *globe*. Our earth is a lot larger than this globe. This is only a model; a globe. This is the *Sandpaper Globe*."
10. Demonstrate how to gently rotate the globe with your dominant hand.
11. Say something like, "When we turn the globe we can see the different parts of the earth."
12. Invite the child to rotate the globe.
13. Then say, "If you were an astronaut out in space, the earth would look kind of like this."
14. Steadying the globe with your non-dominant hand, lightly stroke one whole land area (*not just the outline*) carefully with the fingertips of the other hand.
15. Say, "This is *land*. This part of the earth is covered with land."
16. Repeat with another land area.
17. Invite the child to stroke land and say *land*.
18. Stroke one of the water areas in the same way and say, "This is *water*. This part of the earth is covered with water."
19. Repeat with another water area.
20. Invite the child to stroke the water and say *water*.
21. Give a Three Period Lesson on *land* and *water*.
22. Practice globe etiquette: With two hands on opposite sides of the globe gently lift it off its base.
23. Holding it on the palm of your non-dominant hand look at and feel the land representing Antarctica with your other hand.
24. To replace the globe onto the base (with a "pin") point to the pin and then the hole on the bottom of the globe.

Sandpaper Globe (cont'd.)

25. Holding the globe on opposite sides with your finger tips only place the hole onto the pin; tilt it slightly until it gently slides down onto the pin.
26. Emphasize that no pressure is used to replace the globe; it slides into place.
27. Repeat the demonstration.
28. Invite the child to remove the globe, feel any land area and replace the globe on its base.
29. With the child return the globe to the shelf.

Language: model, earth, globe.

Points of Interest:

1. Feeling the rough and smooth textures of the globe.
2. Seeing the distribution of land and water.

Control of Error: Globe does not rest properly on its base.

Variations:

1. Feel for *land / water* using a blindfold or with eyes closed.
2. Use a conventional globe to identify land / water. (*Do not address political boundaries such as countries, etc. at this point.*)

Extensions:

1. Looking at posters / photographs of the earth taken from space.
2. Walking on the line with the globe on its base.
3. Crayon rubbing of sandpaper continents (see *Crayon Rubbing* in the Appendix).
4. Using white paper with land outlined on it: Color the water with blue crayon. "Paint" Elmer's glue on the land part, sprinkle brown sand on it.
5. Displaying a dirt collection (dirt / land is not the same everywhere!):
 - Children bring a baggy of dirt from their yard or a trip, (*air-dry at school!*)
 - Compare color, texture, etc. to other samples from same or different areas.

Notes:

Globe etiquette is very important to the survival of your globe!