Title	The globe: A neglected teaching tool
Author(s)	Yee, Sze Oon
Source	*Teaching and Learning, 12(1),68-75*
Published by	Institute of Education (Singapore)

The Globe : A Neglected Teaching Tool

YEE SZE ONN

Introduction

At one time a globe was a common sight in almost every classroom. Then for some inexplicable reason it disappeared from our classrooms. Though its importance has not diminished its potential as a learning aid and teaching tool has not been fully exploited.

Why Use The Globe

The globe is the most accurate representation of the earth. Because the globe is a sphere like the earth it has properties that cannot be found on any one flat map. On it:

- Distances between places are in correct proportion.
- Shapes of land masses and water bodies are correct.
- Areas of land masses are represented correctly in their relation to each other.
- Cardinal directions are shown correctly.

Maps may have one or two of these characteristics but they cannot have them all. For example on many world maps, Africa looks smaller in area than North America. Such maps also make Greenland look as large as South America. On a globe sizes of land masses appear as they actually exist. Thus a globe is the best reference test for locating places, viewing shapes, comparing areas, finding directions and measuring distances on the earth.

Globes are ideally suited to helping children attain fundamentals about the earth and its surface features. In the early years the globe can be used to develop concepts of roundness of the earth, differences in surface features from place to place and variations in size among land masses and water bodies.

In later years the globe can be used to develop concepts related to rotation and revolution, night and day, changes in seasons and time zones.

Concept development of this kind is a pre-requisite to the development of map reading skills and is closely related to the development of major geographical concepts.

Selecting Globes

In selecting globes for instructional purposes several criteria should be considered:

1. *Size and legibility*

   For instructional purposes globes ranging from 8 to 24 inches in diameter are suitable. If budget permits even larger sizes are desirable. However, legibility is determined by the amount of detail, the size and style of lettering and the combinations of colours used. Much of the information contained on globes is suited only to individual or small group work.

2. *Detail and simplicity*

   For children in primary classes a simplified markable globe with a minimum of detail provides opportunities for the children to fill in information. For older groups, globes containing additional detail are appropriate but there should never so much detail as to obscure the essential information portrayed. Colours should be clear and easy to distinguish.

3. Teaching Value

A globe should be attractive in appearance to promote student interest but its teaching value rather than its aesthetic quality must remain the main consideration.

Instructional Experiences With The Globe

The globe can be used to provide a variety of learning experiences to help pupils develop geographic concepts, understanding and skills.

- *To develop the concept of the globe as a model of the earth*

Procedure

Show pupils a toy house. The teacher might ask:

Do you all know what this is? What does it represent?

How large do you think your house is?

This house is very small when it is compared with the size of a real house isn't it? Yet it is like a real house.

This miniature house is a model of a real house. In the same way the globe is a tiny model of our earth.

- *Seeing what the colours represent*

If the children have not learned that blue stands for water and brown for land, this is the time to introduce the concept. The procedure may be as follows:

1. Tell the children what the colour stands for. With the aid of carefully selected pictures show why blue and brown are appropriate colours to use for water and land.

2. Count the large land masses. Tell the children that each continent has a name. Write the names of the continents on the board and locate each on the globe. Emphasize that no two continents are alike in size and shape.

   Turn the globe about to see that there is more water than land. Tell them that the large bodies of water are the oceans. Count the oceans and write their names on the board.

- *Learning directions North and South on the globe*

Point to the two poles on the globe and tell pupils that each of the poles are fixed points at opposite ends of the planet.

Tell the children that

(a) North is the direction toward a certain place on the earth that we call the North Pole

(b) and South is the direction toward a place on the earth called the South Pole.

Show the children on the globe the location of the symbols that stand for the North pole and South pole respectively.

Label these points North Pole and South Pole.

Trace lines that extend from the north pole to the south pole and explain that these are north and south lines.

Show that the direction towards the north pole or any of these lines is north.

- *Learning directions east and west on the globe*

Look at the globe. Ask the children to imagine standing on this north-south line facing north. Show which way is east, which west.

Point east; point west.
When you face north east is to the right; west is to the left.
The sun rises in the east; sets in the west.

- *Illustrating the scale of the globe*

Tell the children that one inch on a 16-inch (40 cm) globe stands for 500 (805 km) on earth. Show them where they can read this on the globe. Ask them to think of one inch representing a distance of about 850 miles – Place symbols on the globe to indicate places about 850 miles from the home location.

To show that the distance around the globe is the same in all directions. Cut a long string and have the children use it to measure the distance around the globe. This activity will show them that in whatever direction they measure it, the distance is the same.

- *Concept of Great Circle Route*

A Great Circle Route is the shortest and most direct route between two points on a sphere. The Great Circle divides the surface of the earth into two equal parts and can be drawn in any direction. The equator and each pair of opposite meridians are great circles.

A Great Circle Route can be shown by taking a piece of string and stretching it between the two places on a globe.

- To illustrate the difference between travelling the great circle route rather than a small circle route on the globe, a pupil should be asked to do the following:

1. Take a piece of string and stretch it between two cities eg. Los Angeles and Tokyo.

2. Pull the string taut and use it to find the great circle or shortest route.

3. Then take the string and place it along a smaller circle than the arc that forms the circle.

4. Compare the difference between the two distances by measuring the string.

- *Explaining rotation of the earth*

  The following facts about the earth's rotation should be taught:

  - The earth turns completely round in one day. Demonstrate this by turning the globe slowly. Tell the children that because it always turns in the same way, we say that it rotates on an axis.

  - The earth always turns or rotates in the same direction – from west to east. Show how it turns from west to east. Hold the globe so that the children can see that places at the west gradually turn toward the east.

- *Day and night*

  Demonstrating the cause of Day and night.

  The following procedure is recommended:

  1. Darken the room if possible to make the distinction between the light and dark halves of the globes more distinct.

  2. Have a child hold a flashlight in a stationary position to represent the sun. Direct the beam of light toward the equator.

  3. Note that one half of the globe is lighted. Say, 'This side is having day; the other side, night'.

  4. Rotate the globe slowly from west to east.

- *Understanding Latitude and Longitude*

Tell pupils to imagine that they are on a cruise and that their ship has struck a reef and is sinking. To get help they must radio their position. In order to locate their position, it is necessary not only to know what parallel or latitude it is on but also its meridian or longitude. With the help of the following diagrams, explain

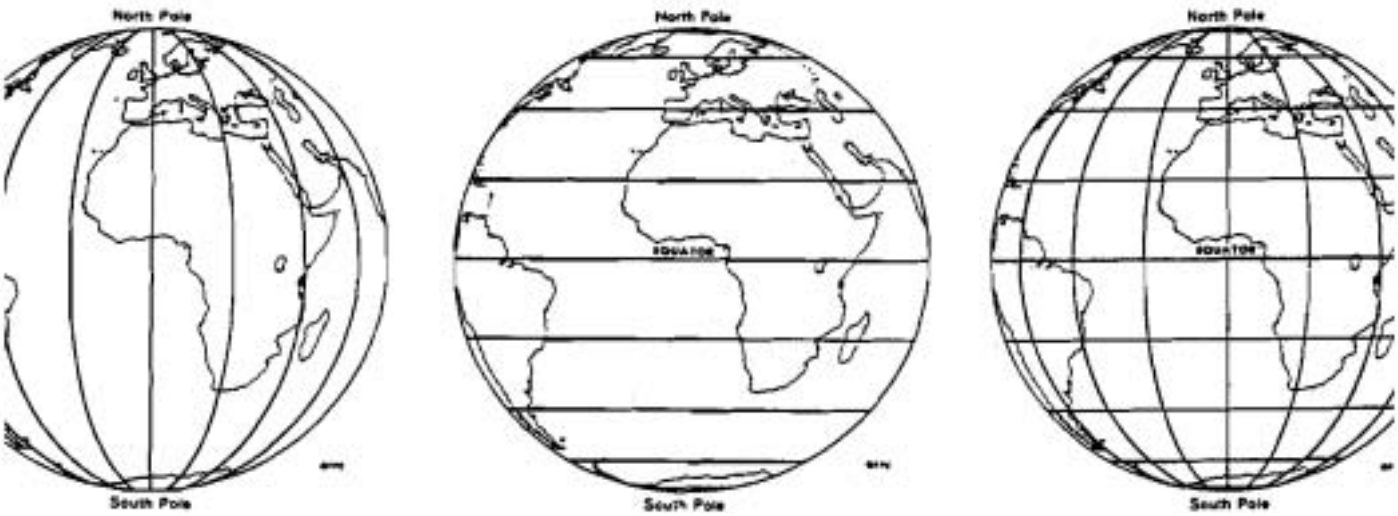
1) That lines drawn on the globe from pole to pole are called meridians or longitudes.

2) Parallels or latitudes are circles drawn parallel to the Equator.

3) Latitude is the distance north or south of the equator given in degrees, minutes and seconds.

4) Longitude is the distance east or west of the prime or 0° meridian given in degrees, minutes and seconds.

These two sets of lines are used to locate places on the earth or globe.



Globe-Map A

Globe-Map C

eridians of Longitude **Parallels of Latitude** **Latitudes and Longitude:**

Figure 1

Conclusion

1. By the end of this primary sequence of instructions: activities children will have learnt the following concepts concerning the globe.

2. The globe is a model of the earth.

3. The earth is a huge sphere.

4. There is more water than land surface on our earth.

5. The place farthest north is the North Pole.
The place farthest south is the South Pole.

6. The equator is midway between the poles.

7. The earth rotates from west to east every twenty-four hours on an axis or imaginary line running through the center of the earth from the North Pole to the South Pole.

Although the globe has not been used as often as it should be in social studies/geography lessons, the importance as a teaching tool and learning aid has not diminished. There is much to be said for bringing it back to the classroom.