

## **Globe Lesson 3 - Cardinal Directions - Grade 6+**

There are really six cardinal or main directions. Up and down are two main directions. Up is any direction away from the center of the Earth. Down is any direction toward the center of the Earth.

The four other cardinal directions are north, south, east and west. To learn about these four cardinal directions we need to study some basic facts about our planet Earth.

The Earth is a sphere, a round, solid body. (In fact, it's not quite round, but that only matters to scientists.) The Earth spins, or rotates, on an imaginary axis. This imaginary axis passes through the center of the Earth. It emerges from the Earth's surface at two opposite points. One of these points is called the North Pole. The other is the South Pole.

Find the Compass Rose at Latitude  $30^{\circ}\text{N}$ ,  $150^{\circ}\text{E}$ . Find the Compass Rose at  $40^{\circ}\text{S}$ ,  $45^{\circ}\text{E}$ .

The poles define two of the cardinal (major) directions, north and south. North is toward the North Pole. South is toward the South Pole.

The direction in which the Earth rotates defines the other cardinal directions, east and west. The Earth rotates from west to east. East is to the right as you face the North Pole. West is to your left as you face the North Pole.

### True Directions

The globe has not distortion. It shows true direction. Place your globe in the clear view mounting as shown below, such that the North Pole is pointing to the ceiling.

On your globe find the Equator. Draw an arrow from the Equator almost all the way to the North Pole. Label this arrow north. Next draw an arrow from the Equator toward the South Pole. Label this direction south. As you look at the globe you will see other lines that run north and south are already drawn on the globe. These lines are called

meridians or longitude. All meridians run from pole to pole. The Prime Meridian is a special line of longitude.

The Equator is the main east-west line on the globe. Turn the globe so that the North Pole is upward. East is to your right as you face the North Pole. West is to your left as you face the North Pole.

As you look at the globe you will see other lines that run east and west. East and west lines are called parallels of latitude.

With the North Pole pointing toward the ceiling, draw an arrow along the Equator that is toward your right. Label this arrow east. Draw another arrow to your left. Label this arrow west.

Use your globe to answer these questions:

1. Which continent is south of Europe?

\_\_\_\_\_ Africa \_\_\_\_\_ North America \_\_\_\_\_ Asia

2. Which ocean is east of Africa?

\_\_\_\_\_ Indian Ocean \_\_\_\_\_ Atlantic Ocean \_\_\_\_\_ Arctic Ocean

3. Which continents are south of the Equator?

\_\_\_\_\_ North America \_\_\_\_\_ Antarctica \_\_\_\_\_ Australia

4. Which ocean is north of Asia?

\_\_\_\_\_ Atlantic Ocean \_\_\_\_\_ Arctic Ocean \_\_\_\_\_ Indian Ocean

5. Which ocean is east of South America?

\_\_\_\_\_ Arctic Ocean \_\_\_\_\_ Atlantic Ocean \_\_\_\_\_ Pacific Ocean