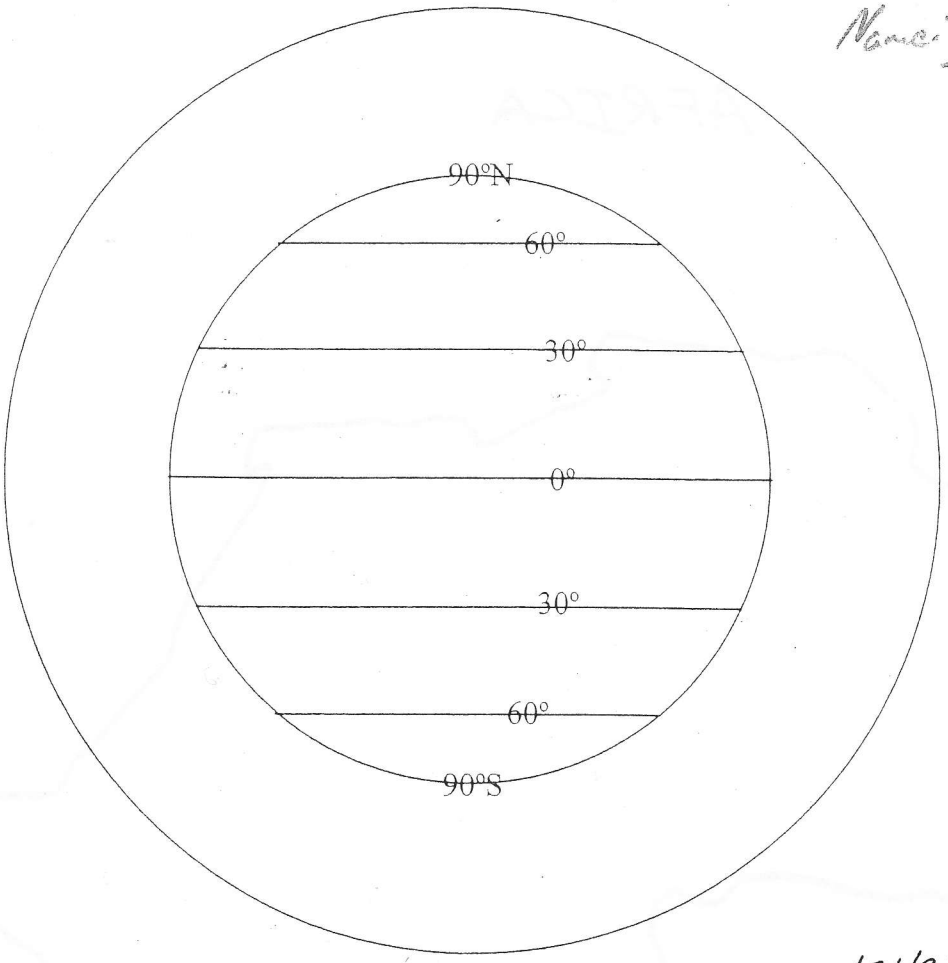
Physics II
Reducing Climate Patterns

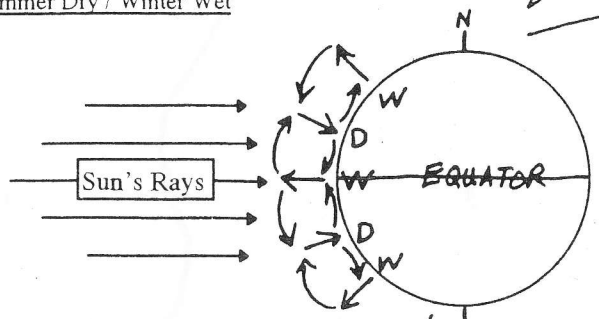
Name: _____



Seasonal Climates: Summer Wet / Winter Dry, and Summer Dry / Winter Wet

W = Wet
D = Dry

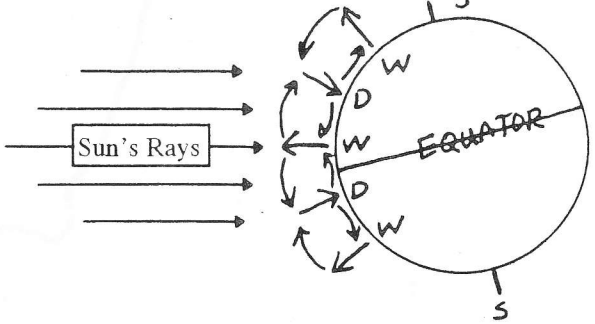
During most of the year, the sun is "over the equator," so the hot air rises at the equator and circulates as shown on the right. Wherever the air is rising, it is generally wet. Wherever the air is sinking, it is generally dry.



Climates during Most of Year *

During June, the earth is tilted differently, causing the sun to "shift to the North," . You can see that the sun's rays are most direct north of the equator. This causes the rising and sinking air to shift north with the sun. So do the pressure belts and the wet and dry areas.

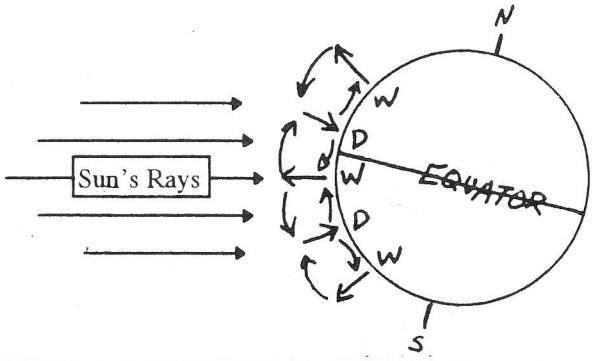
This is Summer in the Northern Hemisphere and Winter in the Southern Hemisphere.



Climates Shift North In June

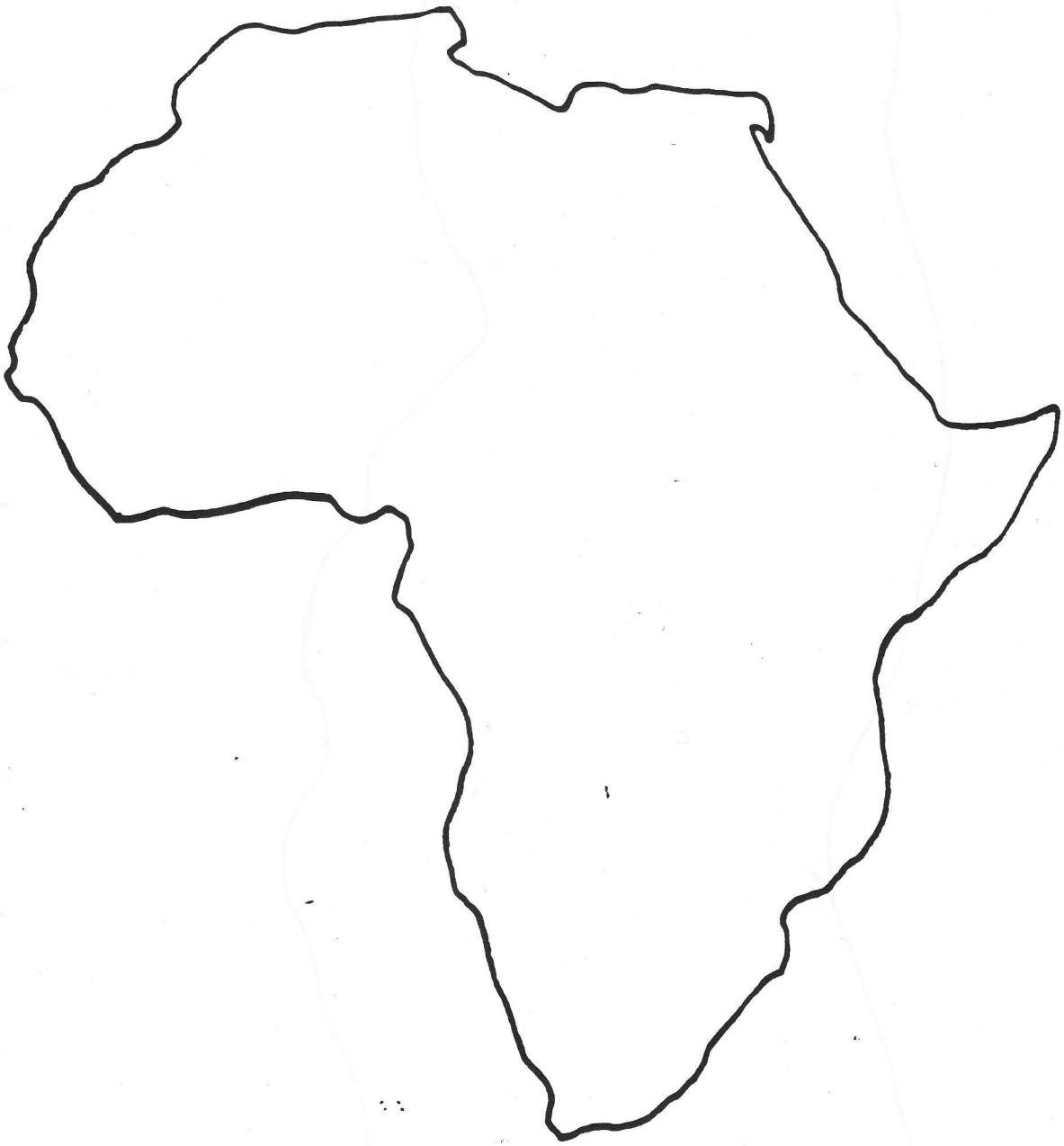
During December, the tilt of the earth causes the sun to "shift to the South," so the rising and sinking air, the pressure belts, and the wet and dry areas all shift to the south.

This is Winter in the Northern Hemisphere and Summer in the Southern Hemisphere.



Climates Shift South In December

AFRICA



AUSTRALIA

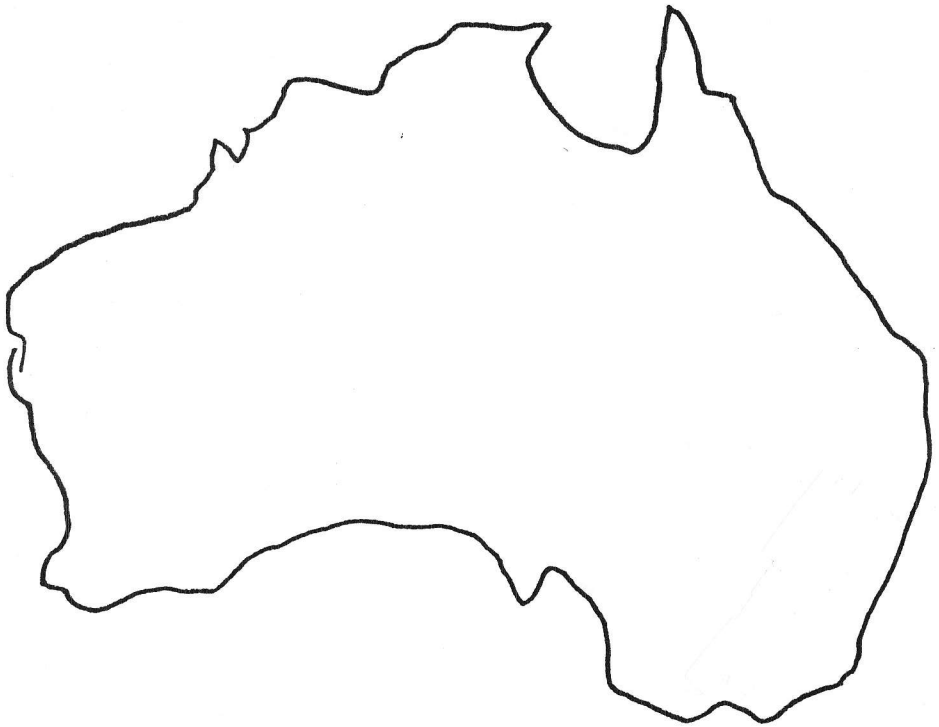
— Equator —

10° —

20° —

30° —

40° —



— Equator —

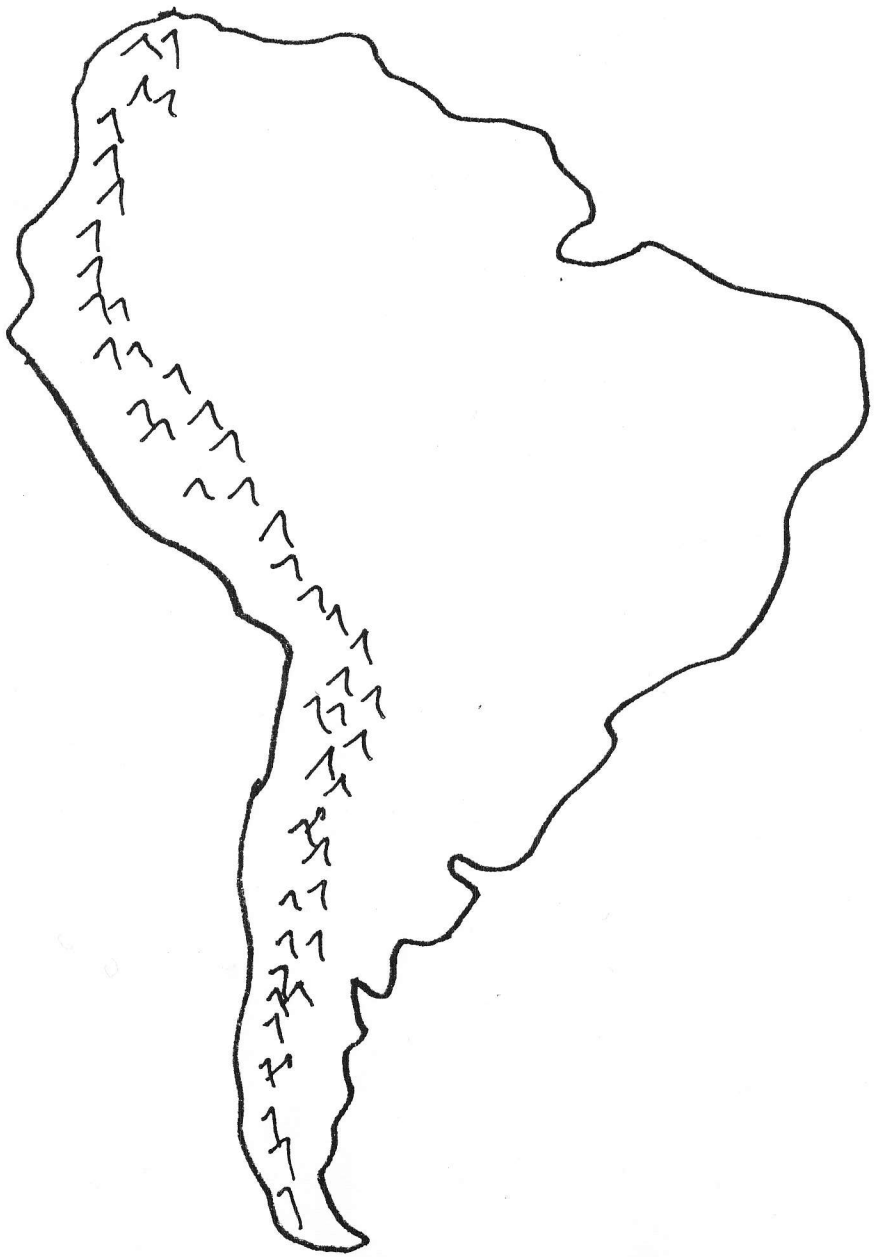
— 10° S

— 20° S

— 30° S

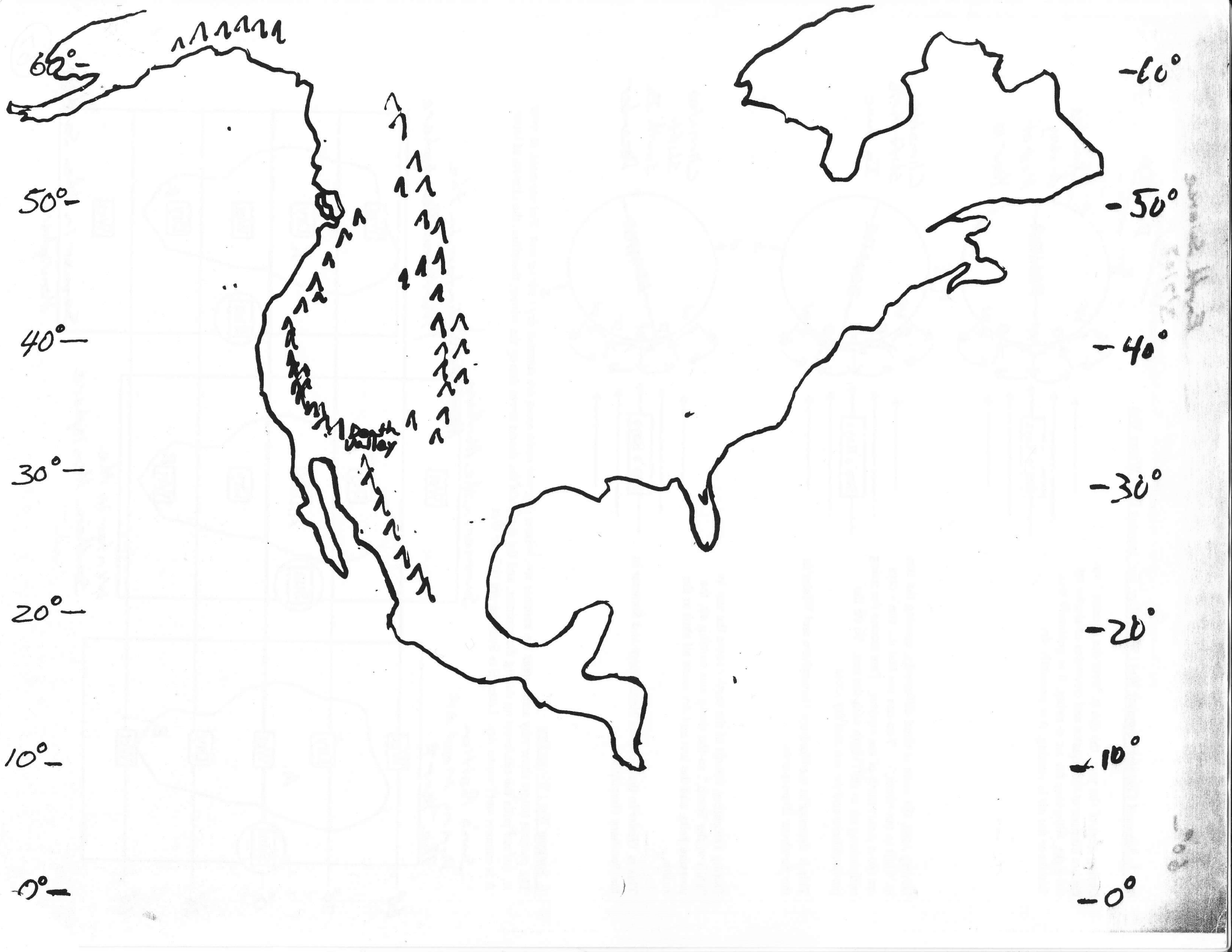
— 40° S

South America



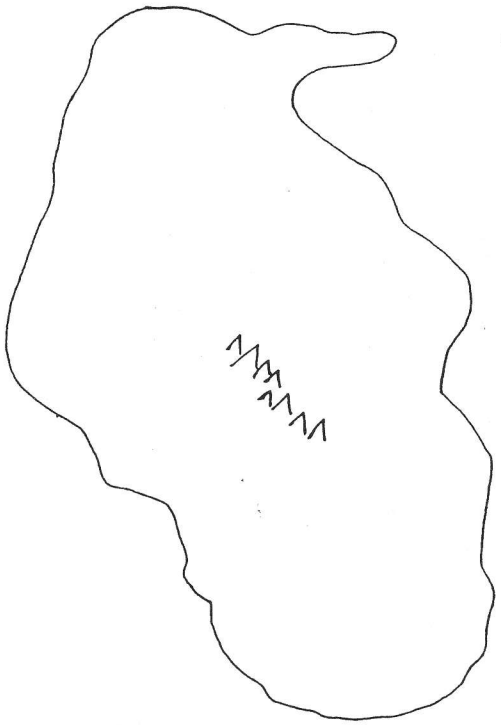
10° 0° 10° 20° 30° 40° 50°

10° 0° 10° 20° 30° 40° 50°

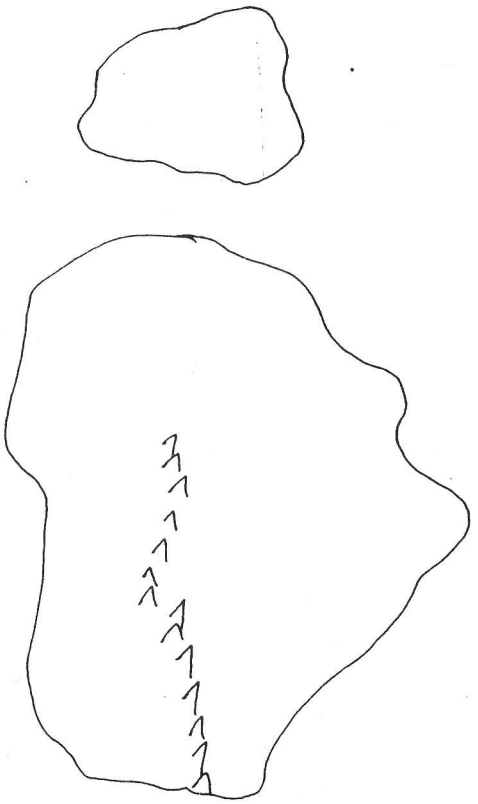

60°
50°
40°
30°
20°
10°
0°
-60°
-50°
-40°
-30°
-20°
-10°
-0°

practice Climate Maps

(A)



(B)



60° 50° 40° 30° 20° 10° 0° 10° 20° 30° 40° 50° 60°