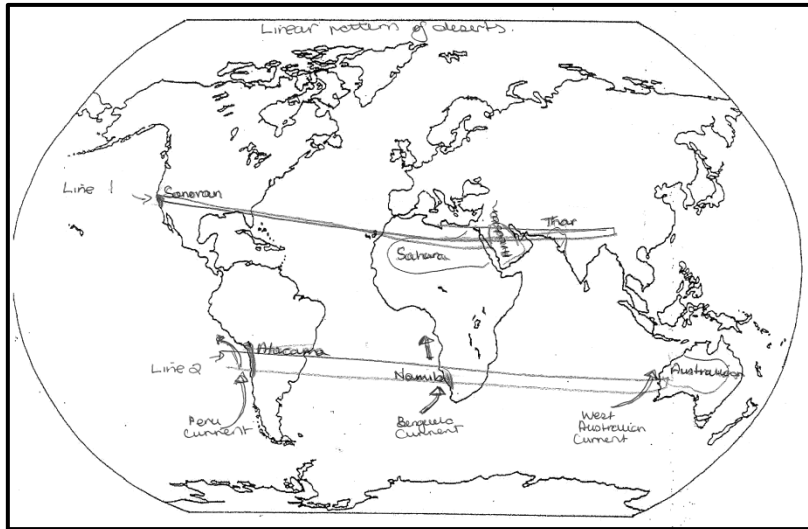


Student 4 – High Achieved



[1]

Global pattern

The largest sub-tropical deserts occur along the 25°- 30°N latitude, in the Northern Hemisphere, e.g. Sonoran, Sahara, Arabian and Thar Deserts. This is a linear pattern. There is also a linear pattern in the Southern Hemisphere which goes through Chile, Argentina, Southern Africa, and Australia following the 25°- 30°S latitude [2]. In South America and Africa deserts appear concentrated on the west coast e.g. Atacama and Namib Deserts...even in Australia the east coast has no deserts [3].

Factors and/or processes

Cold ocean currents cause the deserts on the west coast of continents. Two coastal deserts the Atacama (Chile) and Namib (Namibia) are parts of the Southern Hemisphere linear pattern [4]... The sea temperatures are too cold for evaporation and so the air stays quite dry meaning no rain [5]... The land stays dry and desert like... The Benguela Current flows up the west coast of Africa creating severe desert conditions on this coast. In South America the Peru Current has the same effect and the West Australia Current brings cold water up the west coast of Australia [6].

High pressure cells also contribute to forming this line of deserts in the Southern Hemisphere [7]. Around the Tropic of Capricorn is a high pressure belt that covers the main deserts in this line. Dry weather is a characteristic of high pressure and if they are over the area for a long time there is a water shortage. If low pressure cells moved in this area they would bring rain and end the desert conditions.