



Shifts and Changes - Teacher's Notes

Some water bodies in Australia experience large changes in both water level and quality. They are often influenced by changing seasons and weather events, such as floods or cyclones. Lake Eyre (Kati Thanda) in South Australia is an example of this.



The Lake Eyre basin in which the lake itself is situated is quite interesting as it drains approximately one sixth of the continent and is the lowest part of Australia, sitting at 15m below sea level. When it fills, it becomes the largest lake in Australia; however, this only occurs roughly four times every hundred years. The Lake Eyre basin spans 1.2 million square kilometres across Queensland, New South Wales and the Northern Territory. The majority of the time Lake Eyre is a large, dry salt lake so dry in fact it was used as the track to set a land speed record back in 1964.

The basin is *endorheic* which means that it has a closed drainage system, only losing water through evaporation as it does not drain into rivers or the ocean. This is why there can be such a huge change in the lake's water levels. The lake may be filled by floods that occur in the massive basin, such as those that occurred in Queensland in 2009 when a huge volume of floodwaters took approximately four months to arrive and fill the lake. This led to a huge explosion in life in and around Lake Eyre, including a vast



Santos & ESWA supporting earth science education



Shifts and Changes - Teacher's Notes

increase in the population of migratory birds, such as pelicans and banded stilts.

This ABC TV Behind the News episode on the 2009 flood that filled Lake Eyre may be of interest and students could perhaps conduct further research on the changes that occur during flood events.

<http://www.abc.net.au/btn/story/s2578003.htm>

This article and video shows the lake flooding in 2018.

<http://www.abc.net.au/news/rural/programs/sa-country-hour/2018-05-24/lake-eyre-fills-water-tourists-feral-animals/9792352>

This website also gives lots of information on the Lake Eyre Basin including some teacher and student resources.

<http://www.lakeeyrebasin.gov.au/resources/student-and-teacher-resources>



Santos & ESWA supporting earth science education