

➤ SAVE OUR DUNES

Target Group: **Year 4**

Australian Curriculum Reference: **Science**

- + Earth's surface changes over time as a result of natural processes and human activity (ACSSU075):
 - + exploring a local area that has changed as a result of natural processes, such as an eroded gully, sand dunes or river banks
 - + considering how different human activities cause erosion of the Earth's surface.

LESSON SUMMARY

Students will visit a local beach or, if situated inland, an erosion site.

Students will be guided by local conservation management to actively participate in rehabilitation strategies such as brush matting or weed eradication.

Students will discuss how the actions of volunteers (*working en masse*) can create a positive effect in rectifying damage caused by natural processes and human activity.

LESSON CONTENT AND METHODOLOGY

- + Teacher selects a site the students will visit.
- + Using pictures (and prior experience students have of the area), the teacher asks students to identify features of the site, both natural and man-made. Students brainstorm the purpose of each feature. This could include surf lifesaving flags to identify safe areas to swim, fences to keep people off sand dunes, sand as the habitat of shore dwelling creatures and dunes as the barriers between ocean and inland zones.
- + Teacher asks students to consider how the area might look after one week, one month and one year.
- + Teacher focuses discussion on seasonal changes in nature (such as winter winds, storm activity and tides), and in human activity (such as summer holiday crowds, popular events and activities).
- + Students list negative effects that can be caused over time as a result of natural processes and human activity.
- + Students visit the site and meet with a local conservation manager or authority. Here they will listen to a presentation on weathering and human impact on the dune system or eroded area. In the case of a coastal location, they will then be instructed in the process of 'brush matting' (or any other relevant technique) as a means of stabilisation and rehabilitation, with a scientific understanding of the procedure.
- + Working together, students will undertake this process. The focus of this experience is based on the understanding that many people working together can effect positive change. The teacher explains to students that many volunteer organisations fulfil this role in our community.

Follow-up after the outdoor activity

- + Students research organisations that engage volunteers for dune or site restoration processes and think about how they could contribute to this activity in their own time.
- + Students should revisit the site as their efforts begin to show effect.

ASSESSMENT

Teacher to determine appropriate assessment.

RESOURCES

- + *Brush matting technique and rationale:* www.environment.nsw.gov.au/resources/cpp/Revegetation.pdf
- + *Rehabilitating a Dune:* wiki.bdnrm.org.au/index.php?title=Rehabilitating_a_Dune
- + SA government: Working with community groups: www.environment.sa.gov.au/our-places/coasts/Adelaides_Living_Beaches/Managing_the_Adelaide_coast/Dune_rehabilitation_revegetation
- + Conservation Volunteers: www.conservationvolunteers.com.au/get-involved/volunteer/conservation-experience/project-examples/western-australia