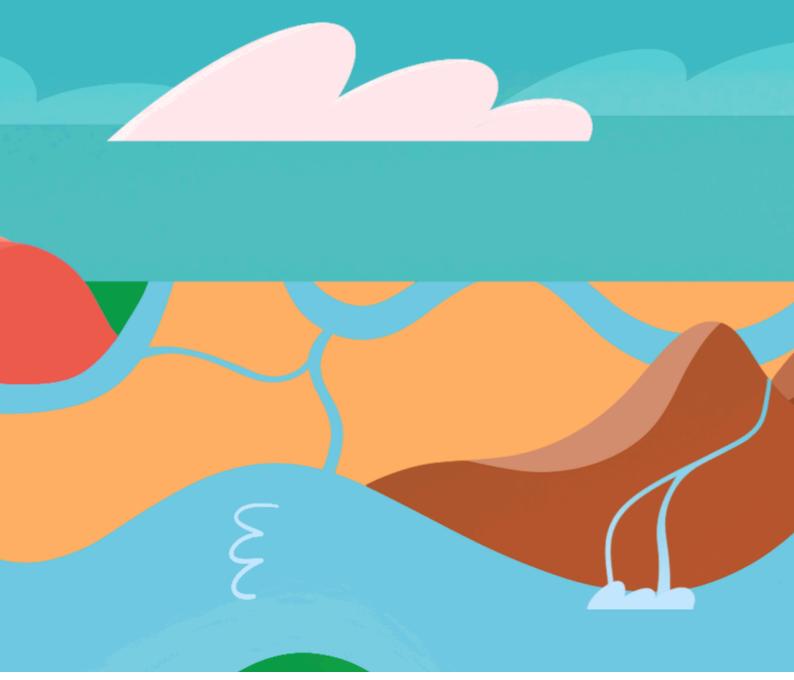
The Oyster Gardener

Geography (Primary, 3-6)







About this film



The Oyster Gardener

Can a functionally extinct reef system be brought back to life? Jolie, a year 12 student and aspiring marine biologist, joins forces with her community to bring back the lost oyster reefs of the Noosa River.

The Oyster Gardener is a short film that follows Jolie on a journey of discovery to see if restoring biodiversity and reversing the impacts of climate change in her local river system is possible. This year, she's part of a specifically-designed curriculum program that has been engaging young people in this ambitious local restoration project through real-world learning and citizen science.

As the journey unfolds, we learn that parallel to the story of the oyster reef, Jolie is going through a life transition of her own. She is finishing high-school and preparing to leave home for the first time. Grappling with so many uncertainties, yet seeking moments of joy, awe and curiosity wherever she can, we watch as Jolie navigates the unknown, while finding her voice and her purpose.

About this unit

Essential question:

Why are water environments so important to people and how does this influence how they are managed?

Key vocabulary:

waterways	restoration	oysters	spawning	ecosystem
conservation	reef	replicate	resilient	oyster gardening

Learning intention:

Students will learn about the importance of water environments and ways to protect them.

Curriculum information:

The activities in this unit address the following outcomes from the HASS F-6 Humanities and Social Sciences curriculum as outlined in the Australian Curriculum v9, and the United Nations' Sustainable Development Goals.

Years 3-4 activities:	AC9HS3K05, AC9HS4K05
Years 5-6 activities:	AC9HS5K04, AC9HS5K05

Sustainable Development Goals:		
Goal 11	Make cities and human settlements inclusive, safe, resilient and sustainable	
Goal 12	Ensure sustainable consumption and production patterns	
Goal 13	Take urgent action to combat climate change and its impacts	
Goal 14	Conserve and sustainably use the oceans, seas and marine resources for sustainable development	

Before watching

Activate prior knowledge

Students will try to activate prior knowledge about what natural, managed, and constructed features of an environment, before considering how people's actions can alter the characteristics of a place.

Use an atlas or Google Earth to locate the Noosa River. Explore the area around the river and write down the different natural, managed, and constructed features of this region. For example, you may observe lakes, beaches, housing estates, roads, or parks.

Natural features along the Noosa River	Managed features along the Noosa River	Constructed features along the Noosa River

As a class, discuss how the river might be used by local people. How might these human activities influence the characteristics of the river region over time?



After watching

Here are some activities to take your students' learning from the film further.

Years 3-4 activities:	
Curriculum alignment:	AC9HS3K05, AC9HS4K05

Activity 1: Connection to places

Students will consider local environments that are important to themselves and compare them with Jolie's experiences in the film.

- Students will draw two environments in their local area that are important to them. For each environment, students label their drawing with:
 - Key characteristics (e.g. constructed, natural, and managed features)
 - How this environment is used by local people
 - A few reasons why they feel connected to that place.
- Ask students to present one of their drawings to the class and explain their connection and the importance of that particular environment.
- In pairs, students will discuss how Joile felt about the local waterways in the film and what experiences prompted her to feel this way about these environments.

As a class, student pairs should then discuss their ideas and draw some comparisons between their own experiences and Jolie's. For example, did they also grow up in an area and spend time with their families exploring a particular environment?

Support:



Students may be provided with a list of local environments and be guided to rank which ones are most important to them. In pairs, students could discuss why they ranked these environments in a particular order and could point out the key features of each environment.



Extension:

Students could compare the natural, managed, and constructed features of the Noosa River region and one other river system in a neighbouring country. Students could conduct research on the importance of other river systems (such as the Ganges River in India) to local people (considering the aesthetic, cultural, spiritual and emotional value) and how they are used.

Activity 2: Taking action to make a difference

Water is important for sustaining life on Earth. Without it, plants and animals cannot survive. Therefore it is vital that we manage our waterways and find sustainable ways of using these resources. In the film, Jolie's school taught students about ways to protect and restore the environment. Jolie was able to make actual change in improving her local waterway by participating in a community action group. In this task, students will brainstorm ways that they can take action to protect a particular environment in their local area.

- As a class, students should select one local environment (this may be one
 discussed in **Activity 1: Connection to places** or an environment that is
 identified to be degraded or undermanaged).
- In small groups, students should first categorise this environment (natural, constructed, or managed) and then brainstorm the current major issues it faces.
- Students should then identify ways that this environment could be more sustainably managed. Students should draw upon ideas raised in the film such as using native plant and animal life to help restore the environment and research local First Nations traditional management techniques which historically maintained a natural balance between people and the environment.
- Students should research existing local community groups such as the Noosa River Oyster Gardening Project run by the Noosa Integrated Catchment Association (NICA) and investigate what techniques they are using to sustainably manage or regenerate the environment.
- Students could then use their brainstorms and research to develop an
 achievable action plan for the class to physically go out and participate in a
 regeneration project for the selected environment. This may involve a planting
 run by Land Care, contacting local council to engage in a conversation about
 future management plans, or starting a school task force for educating and
 raising money for a local community action group.

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Support:

Students could be provided with a list of local community action groups and supported to list the ways they are assisting the local community. Students could work in pairs to draft a short communication to this group asking how young people could assist in making a difference. Students could then verbally report on what they have found and work in mixed-ability groups to promote school-based action or change.

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Extension:

Students could take their research of community action to restore environments further by comparing sustainable management practices between their local region and others in their state or nation. Students may create a list of successful approaches to environmental management and apply it to their local action plan.

Tip: Urban schools could look at the Swimmable Cities movement. The group Regen Melbourne has a Swimmable Birrarung/Yarra River project underway, and similar projects exist in other major cities like Marrinawi Cove in Barangaroo, Sydney.



Years 5-6 activities:		
Curriculum alignment:	AC9HS5K04, AC9HS5K05	

Activity 3: Human influences on places

Humans can have both positive and negative influences on natural environments. In the film, Jolie identified how her local place and waterways around her were changing over time as a result of human activities. Coral bleaching caused by warming oceans and the near extinction of oyster populations caused by historical colonial human activities prompted her to engage with a community group and take action. These joint efforts of scientists, community members, and school students is attempting to regenerate the river ecosystem over time.

In this activity, students will investigate how humans can have both positive and negative influences on an environment and how historical actions can be corrected through science-driven action.

- The local First Nations clan in the Noosa River region is the Kabi Kabi/Gubbi
 Gubbi people. Prior to colonisation, the Noosa River oysters were a staple food
 source for the Kabi Kabi/Gubbi Gubbi people. They sustainably gathered
 oysters to feed communities for thousands of years. After colonisation, settlers
 began mining the oysters for the shell's lime content to make roads and this
 quickly degraded the local oyster population.
- Students should summarise what impacts the actions both the local First
 Nations and later colonial settlers' actions had on the Noosa River using
 evidence from the film. Students should remember that impacts can be both
 positive and negative.
- Students should then explore the history of their local region. How has an environment in their region been used historically and how has that altered the health and sustainable use of that place?
- Students should then draw comparisons between the Noosa River region
 presented in the film and their own local region. Students should compare the
 extent of change in the local environment over time and the impacts (positive or
 negative) that people have had on that environment. They may use a Venn
 Diagram or other visual thinking tool to illustrate their comparisons.

Support:

in their

Students may be provided with a transcript of the film to assist in their understanding of the history of the Noosa River region. Students may also be

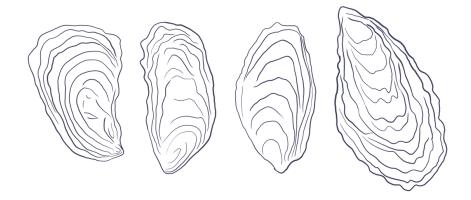
provided with a local degraded environment which they can research and be supported to draw comparisons against. Students may require a clear template to draw comparisons such as the one below:

	Noted changes over time	Positive influences of people on the environment	Negative influences of people on the environment	What can be done to help this environment
Noosa River region				
My local environment				

Extension:



Students could draw upon an international example of human-induced land degradation. Students could research the historical environmental management of this environment by local indigenous peoples, what then happened to degrade the land, and how it is now being managed to ensure future sustainability. Students could compare this international example with their own place or the Noosa River region presented in the film.



Activity 4: A narrative of hope

Throughout the film, Jolie provides a message of environmental hope. Through hard work, passionate community member participation, and adequate funding, environments can be regenerated and ecosystems can be restored.

- In this task, students should create a visual narrative that first explains how the Noosa River region was used over time, then how it is now managed, and then concludes by more broadly examining how changes due to human activities can be mitigated through appropriate management and sustainable practices.
- Students should write text and draw suitable illustrations which meet a set reader age group (for example ages 5-7, 8-10, or peers, 11-13). Students should use the ideas and story presented in the film as the basis for their story and use Jolie's experiences as a basis to teach their audience about environmental change and management.
- Students may create a picture storybook, comic, news report, illustrated news article, or other suitable visual narrative piece.

Support:



Students may work in mixed-ability pairings to create the visual narrative. Students may require access to the fitranscript or a summarised dot point transcript which allows them to more easily break down Jolie's experiences and the impacts of people on the environment in her place. Students may use a computer, Al image generators, and stock image banks to develop the visual aspects of their work if required.

Extension:



If suitable, there may be an opportunity for students to present their work to the appropriate students within the school as a peer teaching exercise. Students could read their text to small groups of younger students and explain what they have learnt and what implications this has from their local area.

The filmmakers of *The Oyster Gardener*, and the team at Regenerators, always love to see the work that students create! If your students would like to share what they have done, please email us at contact@regenstudios.com and put 'The Oyster Gardener - Geography Lesson' in the subject header.

Conclusion

Ask students to respond to the essential question posed at the beginning of the lesson.

Ask if they still have any questions about the content presented in the film. Discuss and answer these questions as a class.



You & Me Pictures and Regen Studios would like to thank the generous contribution of <u>Doc Society Climate Story Fund</u> for the development of these resources.





