

# Digital Detectives

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## Extreme Plants!

The windswept cliff tops and sand dunes of South West Victoria are home to a hardy bunch of local plants. Look closely on your journey today and you will hardly find a clear space where a plant doesn't live.

To survive in a sometimes harsh coastal environment plants require special features, some of them don't even have leaves. Are you ready to sneak up close: capture a photo, and learn a little more about this tough little bunch?

*Your mission:* Capture a photo of the plants below, answer the questions and return to base!



*Cushion Bush (Leucophyta brownii) -*

The comfiest plant on the coast! The skeletal compact structure of this low bush allows it to grow in extreme windy places. Grey coloured plants reflect more sunlight and lose less moisture on hot days.

**Extra points shot** - Try to take a photo of the most extreme place you see a cushion bush growing. But don't put yourself in an extreme place to take it!



*Coast Beard Heath (Leucopogon parviflorus) -*

Plants with small leaves generally perform better in high wind areas, a small leaf catches less wind and is less likely to blow off the plant. The hard waxy leaves of the Coast Beard Heath are also more tolerant to salt than softer leaves.

**Extra points shot** - Beard Heath often provides a shelter and a climbing frame for other coastal plants. Can you capture a photo of beard heath assisting another plant?



*White Correa (Correa alba) -*

This mid size bush has small hairy leaves. The fine hair reduces the amount of airborne salt that can land on the leaves and allows it to grow very close to the clifftop and ocean.

**Extra points shot** - There are several types of Correa that grow in the area most are very flexible allowing the plant to move easily with the wind. If it bends it won't break! Take a picture of Correa growing in a windy spot.



*Drooping Sheoak (Allocasuarina verticillata) -*

This beautiful tree makes a whispering sound in the wind. Sheoaks have separate male and female flowers, the male flowers form on one year old wood and the female flowers form on two year old wood.

**Extra points shot** - Like wattles sheoaks don't have normal leaves, their long fine green branchlets are segmented and are called (cladodes). The leaves are reduced to the tiny orange scales that encircle each segment. Take a close up of a cladode



### *Messmate Stringybark (Eucalyptus obliqua) -*

In most Australian environments eucalypts are the dominant canopy species. Not on this coast. Even the mighty must bow down low in harsh conditions. Messmate Stringybark has shiny leaves which help it to repel airborne salt. The leaves are assymetrical (each side of the leaf is a different shape). In nearby areas (Otway Ranges) Messmate Stringybark can grow up to 90m tall but in our harsh coastal environment it has to huddle for cover and rarely grows taller than the more well adapted Drooping Sheoak.



### *Common Reed (Phragmites australis) -*

The Common Reed grows in wetlands and low lying areas it has long hollow tubes that allow oxygen to be transported to the roots in saturated soil conditions. The common reed is green in spring and summer and straw coloured in autumn and winter when it is dormant.



### *Lichen -*

Lichen is fungi and algae working together to survive where they couldn't survive by themselves. Lichen is more commonly found in shaded areas. There are literally thousands of weird and wonderful kinds. You'll like finding Lichen.

**Extra points shot** - Lichen can grow on trees or rocks. Things that grow on trees are called epiphytes, things that grow on rocks are called lithophytes. Capture a photo of some lichen on a tree and on a rock

## Secret Agents

The way in which seed is spread is called an agent (or a vector). In Port Campbell National Park there are many agents that spread seed. Unfortunately some of these agents also transport weeds.

Birds are one agent that transports seed in Port Campbell National Park. The seed of the coast beard heath will not germinate unless it has been eaten and pooped out by a raven! Can you think of another agent?

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## The carpet between the plants:

*Are you ready for a closer look? Can you see anything growing in the spaces between the clumps of plants?*

Small plants like mosses, liverworts and fungi are often the first plants to colonise an area. They stabilise the soil so that other plants may grow. Once a plant system is established these plants play an important role in providing habitat and nutrition for insects, they keep soil temperature constant, preventing evaporation and reducing erosion.

**Extra points shot** - Take a photo of some small ground cover plants.

**The big Question:** Can you name 4 special features of plants that help them live in a coastal environment?

**Note to parents:** Please tread carefully! As hardy as some of these individual plants are; the coastal system that supports them is extremely vulnerable. All photos and observations should be taken from designated walking trails and lookouts to prevent spread of disease and damage to the system

**Return to base with your  
evidence and answers!**



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