L i f e i s a B e a c h

Beach life - webQuest

**Purpose of this exercise:**  To appreciate the hardships of being a beach plant and becoming familiar with the adaptations that our 4 focus plants have evolved that enable them to survive and compete.

**Welcome Biology students! Please make a copy of this Doc and then away you go (Click on ‘File’ and select ‘make a copy’).**

What is an [adaptation](https://www.youtube.com/watch?v=YX8VQIJVpTg)? Insert your definition here

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| --- |
|  |

Name these 4 plants

|  |  |  |
| --- | --- | --- |
| Photo | Common Name | Botanical Name  (Scientific name) |
| lupin.jpg |  |  |
| pingao.jpg |  |  |
| Spinifex-sericeus.jpg |  |  |
| marram-grass.jpg |  |  |

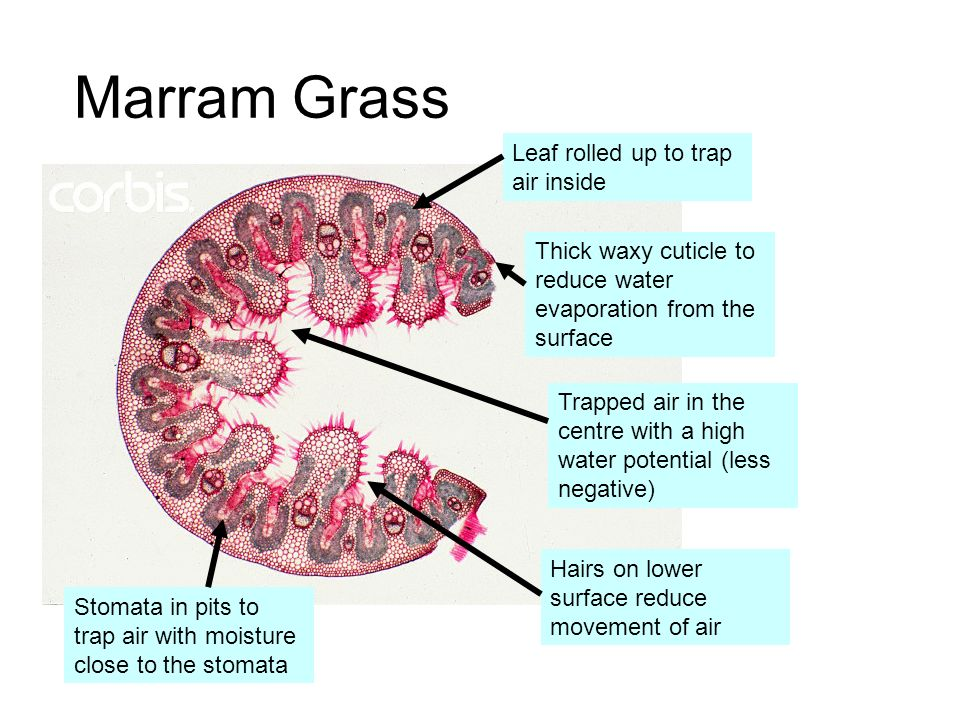
All living organisms need to adapt to get the best of the following five things:

* Food
* Water
* Appropriate temperature
* Shelter
* Gas exchange

In a sand dune environment, which of the above might be difficult to get (limiting factor)?

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| My Answer…  I think this because… |

The following image is a cross section of a Marram grass leaf



The above image shows some of the adaptations that a marram leaf has. Which of the following are these adaptations designed for

* Food
* Water
* Appropriate temperature
* Shelter
* Gas exchange

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| --- |
| My answer… |

Follow this link: <http://en.wikipedia.org/wiki/Ammophila_(Poaceae)>

Or maybe try:[www.microscopy-uk.org.uk/mag/articles/anne1.html](http://www.microscopy-uk.org.uk/mag/articles/anne1.html)

Using the info make a list of the adaptations that marram grass has that allows it to survive better

|  |  |
| --- | --- |
| Marram Grass adaptations | What the adaptation does... |
|  |  |

Compete the same exercise for the remaining plants

Pingao

<http://www.landcareresearch.co.nz/research/biosystematics/plants/weaving/pingao.asp>

<http://tvnz.co.nz/meet-the-locals/nz-geography-our-own-gold-coast-3342514>

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| --- | --- |
| Pingao Grass adaptations | What the adaptation does... |
|  |  |

Lupin

<http://en.wikipedia.org/wiki/Lupin>

|  |  |
| --- | --- |
| Lupin adaptations | What the adaptation does... |
|  |  |

Spinifex

<http://www.teara.govt.nz/en/coastal-shoreline/5/2/2>

|  |  |
| --- | --- |
| Spinifex Grass adaptations | What the adaptation does... |
|  |  |

**Well done my fab Biology Student. You are now a semi- expert on sand dune species and their adaptation.**