**Biotic and Abiotic Factors (**taken from Core Science 5 Jacaranda)

The parts of an ecosystem that are non-living are called the abiotic environment. The parts that are living are called the biotic environment.

1. Complete the table below by classifying the named component as **biotic** or **abiotic**.

|  |  |  |  |
| --- | --- | --- | --- |
| **Component** | **Biotic or abiotic?** | **Component** | **Biotic or abiotic?** |
| Water salinity |  | Competitors for mating |  |
| Wind speed and direction |  | Producers |  |
| Competitors for food |  | Humidity |  |
| Predators |  | Bacteria |  |
| Light penetration |  | Air temperature |  |

2.The following photo shows a clownfish sheltering amongst the poisonous tentacles of a sea anemone. The sea anemone does not harm the clownfish as it searches for food.

|  |  |
| --- | --- |
| **15.02**  © Aleksey Stemmer/ Shutterstock.com | (a) Identify two abiotic components of this ecosystem.    (b) Identify two biotic components of this ecosystem.    (c) How does the association of the clownfish with the anemone benefit the fish? |

3) The illustration below shows a boy on a field trip in the Australian bush.

|  |  |
| --- | --- |
| 15 | (a)**Explain** the importance of the trees and grass to this ecosystem.      (b)Earthworms are shown in the soil under the tree. **Explain** the importance of these worms to the ecosystem.          (c) The student decides to measure an abiotic factor in this area. **Identify** an abiotic factor he could measure and describe how he will perform this task. |