

# 2009 Year 8 Aussie Biodiversity Test (1)



Class size 30 students, representing 20 different schools around Sydney.

## What is biodiversity ?

A – Variability among living organisms and the ecological environment of which they are a part. 18 Correct, 13 Incorrect

## How can bio-diversity be preserved ?

A – Conserve, or maintain the environment which sustains the original variability of living organisms. Keeping indigenous plants is the basis for sustaining indigenous animals. 11 Correct, 19 Incorrect

Students were then asked to identify indigenous plants from representative samples of bark, leaves, fruit, flowers, seed, or photographs. Actual species are noted in *italics*. These plant families are (or were) significant species in the Homebush-Strathfield area, prior to white settlement in 1788. These 20 species chosen are samples of our 2,000 indigenous Sydney plant species.

|   |        |       |
|---|--------|-------|
| Grass - Can identify Kangaroo Grass ? ( <i>Themeda australis</i> )                  | 1 Yes  | 29 No |
| Grass - Can identify Blady Grass ? ( <i>Imperata cylindrica</i> )                   | 0 Yes  | 30 No |
| Herb - Can identify a Saltbush ? ( <i>Einadia hastata</i> )                         | 0 Yes  | 30 No |
| Herb/Creeper - Can identify Blue Scurvy Weed ? ( <i>Commelina cyanea</i> )          | 0 Yes  | 30 No |
| Creeper/flower - Can identify False Sarsaparilla ? ( <i>Hardenbergia violacea</i> ) | 0 Yes  | 30 No |
| Rush - Can identify a Flax lily ? ( <i>Dianella longifolia</i> )                    | 0 Yes  | 30 No |
| Sedge - Can identify Juncus ? ( <i>Juncus usitatus</i> )                            | 0 Yes  | 30 No |
| Semi-aquatic herb - Can identify Spotted Knotweed ? ( <i>Persicaria decipiens</i> ) | 0 Yes  | 30 No |
| Shrub - Can identify Indigofera australis ? ( <i>Indigofera australis</i> )         | 0 Yes  | 30 No |
| Shrub - Can identify Tick Bush ? ( <i>Kunzea ambigua</i> )                          | 0 Yes  | 30 No |
| Shrub - Can identify Pittosporum ? ( <i>Pittosporum revolutum</i> )                 | 0 Yes  | 30 No |
| Shrub - Can identify a Wattle ? ( <i>Acacia falcata</i> )                           | 0 Yes  | 30 No |
| Bush - Can identify a Dodonea ? ( <i>Dodonea triquetra</i> )                        | 0 Yes  | 30 No |
| Bush - Can identify Paper Daisy ( <i>Ozothamnus diosmifolium</i> )                  | 0 Yes  | 30 No |
| Bush - Can identify Blackthorn ? ( <i>Bursaria spinosa</i> )                        | 1 Yes  | 29 No |
| Tree - Can identify a Bottle-brush ? ( <i>Callistemon rigidus</i> )                 | 13 Yes | 17 No |
| Tree - Can identify a Paperbark ? ( <i>Melaleuca decora</i> )                       | 4 Yes  | 26 No |
| Tree - Can identify a She-Oak ? ( <i>Allocasuarina torulosa</i> )                   | 8 Yes  | 22 No |
| Tree - Can identify an Angophora ? ( <i>Angophora floribunda</i> )                  | 0 Yes  | 30 No |
| Tree - Can identify a Eucalypt ? ( <i>Eucalyptus Sideroxylyon</i> )                 | 17 Yes | 13 No |
| Tree - Can identify a Wattle ? ( <i>Acacia decurrens</i> )                          | 15 Yes | 15 No |
| Tree - Can identify a Eucalypt ? ( <i>Eucalyptus fibrosa</i> )                      | 9 Yes  | 21 No |

Score 68 / 660

## Food - How many plants mentioned above can provide food for humans ?

A –Kangaroo Grass, Warrigul Spinach, Dodonea, Acacia, Grevillea, Bottlebrush, Leptospermum  
0 Correct 30 Incorrect

## Water - What is the annual rainfall of the Homebush – Lidcombe area and its wettest season ?

A – About 900mm, wettest season is autumn, driest is winter. 0 Correct 30 Incorrect

## Soils - What is the soil type of the Homebush - Lidcombe area ?

A – Clay, Wianamatta Shale (soft rock formed by clays), and sandstone outcrops 1 Correct 29 Incorrect

**Subsoil indicators** - What are the names of the two sub-soil animals that are the best indicator of healthy Australian soil, and which also indicates that biodiversity has been retained in the area ?  
Witchetty Grubs and Ants !



## 2009 Year 8 Aussie Biodiversity Test (2)

What are the names of your favourite plants ?

**INDIGENOUS :**

1 Eucalypt

**FOREIGN**

8 Roses (Europe/Asia Northern Hemisphere)

2 Cherry Blossum/Sakura (Japan)

2 Daisies (Europe)

1 Avocado Tree (Central America)

1 Bird of Paradise (South Africa)

1 Cactus

1 Dandelion (Europe)

1 Hibiscus (Asia)

1 Lavender (Southern Europe)

1 Rosemary (Mediterranean)

1 Sunflower (America)

1 Apple Tree (Central Asia)

**OTHER :**

1 Don't like plants

Score 1 / 30

**Results :**

Bio-diversity x Local plant x Enthusiasm for => Future Aussie  
Understanding knowledge local plants Bio-diversity

$$\frac{18}{30} \times \frac{68}{660} \times \frac{1}{30} \Rightarrow \text{Lizard}$$

Sydney has about 2,000 plant species, while the whole of the United Kingdom has only 1,600 species. What business opportunities might abound for those students that might investigate and research our native species that grow so well here, without the need for any fertilizers or additional watering ?

**The United Nations has declared 2010 to be the Year of Biodiversity.**



What can you do ? Check how many indigenous plants (and especially native grasses) you can find in your garden and on your nature strip. (There is a "Sydney vegetation list by suburb.xls" on the monastery's website at [www.hwatsangmonastery.org.au/actenviro.htm](http://www.hwatsangmonastery.org.au/actenviro.htm).) Ask your parents or Council if you can add some indigenous plants, or replace some of the foreign plants in your garden or on your nature strip. Need help in sourcing the plants ? - Ask Mr Kiddle or your local Council.