

Tropical Rainforest

What is a Tropical Rainforest Environment like?

| | |
|-------------------|---------------------------|
| Hot / Warm / Cold | ... most of the time |
| Wet / Moist / Dry | ... most of the time |
| Light / Dark | ... under the canopy |
| Lots / Few | ... nutrients in the soil |

1

Sketch one of these leaves. How does the size, shape and surface of this leaf benefit the plant in a rainforest?

Size _____

Shape _____

Surface _____



2

These bromeliads are perch high in canopy trees. How do they get :

...water? _____

...nutrients? _____

...into trees? _____

3

Look up. What part of the plant has been adapted to catch insects and why does it need to?

4

Flowers are colourful in all parts of the world but why are *leaves* often colourful in tropical rainforests?

Arid Desert

What is an Arid Desert Environment like ?

| | |
|-------------------|---------------------------|
| Hot / Warm / Cold | ... during the day |
| Hot / Warm / Cold | ... at night |
| Wet / Moist / Dry | ... most of the time |
| Light / Dark | ... in the open |
| Lots / Few | ... nutrients in the soil |

5

What 3 adaptations can you see in cacti that :

... collect water?

... store water?

... stop water being lost?

6

Describe 3 ways being hairy can help a cactus survive:

| | | |
|---|---|---|
| 1 | 2 | 3 |
|---|---|---|

7

Some cacti have a system of many shallow roots near the surface. How would this benefit the plant?

8

Other cacti and desert trees have a few extremely long roots. How would this benefit the plant?

Classification Keys

Arid Zone Plants

- 1a Plant surrounded by long hairs *Oreocereus celsianus*
- 1b No visible hairs on plant go to 2
- 2a Spines on leaves go to 3
- 2b No spines on leaves *Aloe plicatilis*
- 3a Spines on both sides of leaves *Aloe marlothii*
- 3b Spines only on outward surface of leaves *Aloe peglerae*

Plant A is
Plant B is

Plant C is
Plant D is



Focusing on the structural features of the plants, create your own classification key for any four named plants in *tropical* glasshouse.

| | |
|----|-----|
| 1a | ... |
| 1b | ... |
| | |
| 2a | ... |
| 2b | ... |
| | |
| 3a | ... |
| 3b | ... |
| | |
| 4a | ... |
| 4b | ... |