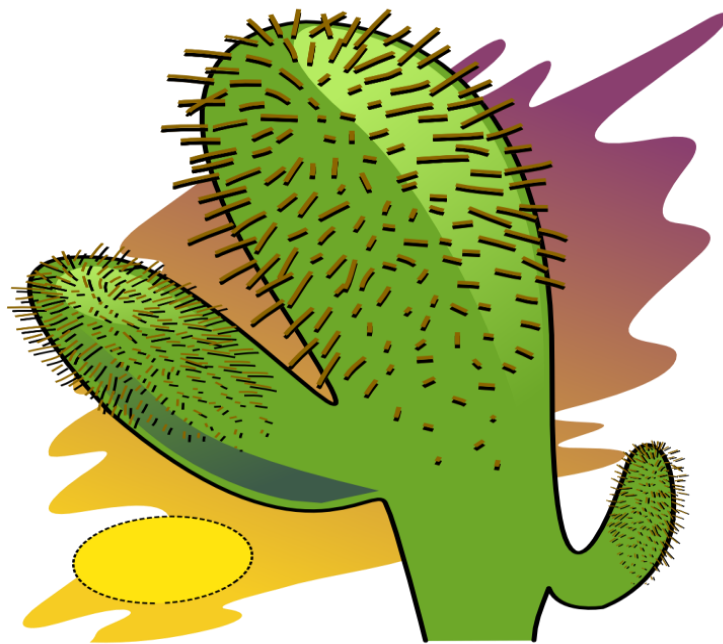


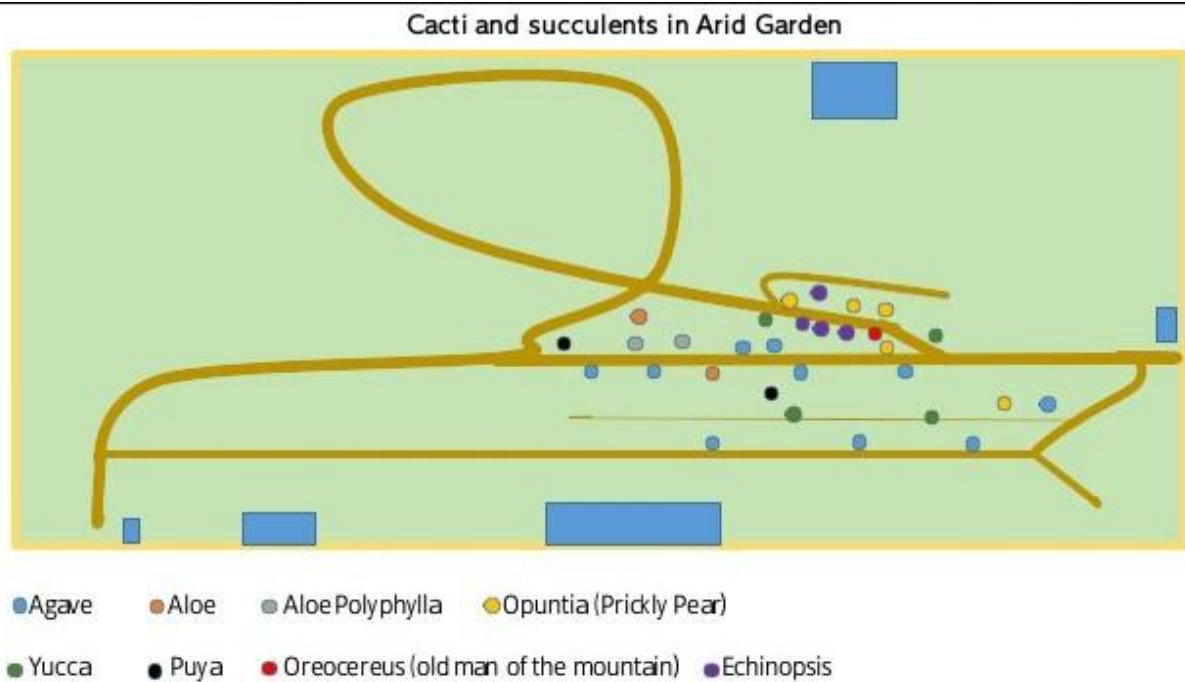
ARID GARDEN
DESERT PLANTS

TEACHER'S NOTES



Teacher's Notes

ARID GARDEN – Area 4 on Map



DESERT PLANTS – succulents including cacti

The Arid Garden gives an opportunity to study these plants growing outdoors. Normally in this country they would only be grown under glass.

The area has been developed to show these plants growing in as natural an environment as possible.

The micro-climate and the fact that they have been planted into poor, sharp, rocky substrate on a slope helps to reduce the effect of our winter damp.

It gives an opportunity particularly to study the characteristics of these plants and how they adapt themselves to an arid environment.

Please encourage the children to look closely at the plants but not to touch – some have very sharp spines.

Succulents you will find in the garden are different types of :

AGAVE (look for *Agave gentryi*, *Agave horrida*, *Agave victoria reginae*. How many varieties can you find)



Leaf formation allows water to collect in small amounts and guides moisture to the roots.

ALOE

ALOE polyphylla



PUYA

L

Long prickly spines to protect from animals.



YUCCA gloriosa pictured.

Look for *Yucca glauca*. Can you see other varieties?



Also types of Cacti:

Opuntia (Prickly Pear) ,

Spines to protect from animals



Oreocereus

(Old man of the mountain)

Hairs help shade the plant

Stem succulent



Echinopsis

Stem succulent

Spines to protect from animals



SUCCULENTS : Have the ability to store water inside their stems or leaves

Look for :

LEAF SUCCULENTS – Agave and Aloe

Study/describe the leaves – thick waxy, acts like a plastic wrapper, helps reduce water loss

STEM SUCCULENTS - cacti such as Oreocereus, Echinopsis

Compare leaves.

Some plants have **spines** to protect them from being eaten by animals for their moisture e.g. Echinopsis, Prickly pear, Puya – this has long thin spiky leaves

Some cacti have hairs to help shade plants e.g. Oreocereus

The leaf formation of some plants e.g. Agave allows them to capture tiny amounts of rain that guides moisture to the roots.

Note Aloe polyphylla, it grows in a spiral shape

Other plants to compare leaves either by size, shape, texture.

Discuss functions of leaf formation.

Aechmea recurvata

Bromeliad family

leaves form vase to hold water



Ochagavia rosea

Of the bromeliad family produces large red flowers.



Delosperma cooperi

Smaller succulent grows close
to the ground.

