

Characteristics Matter! Biodiversity & Classification at the Park...

Student Introduction

- ▶ As well as enjoying the activities you can also find out about some of the plants that are growing at Robin Hill. You can:
- ✓ Study the classification and variation charts.
 - ✓ Observe the characteristics and leaves of the various plants.
 - ✓ Classify the plant according to its characteristics, and complete the worksheet using your observations.



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» [Study the classification chart on page 2 \(non-flowering plants\).](#)

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- » Observe the characteristics of the plant as listed in the chart.
- » In the space next to the photo you can write the name of the species, draw what you see or take a photo using your mobile phone.

Step 2

- » Study the classification chart [on page 3 \(flowering plants\)](#)
- » Find another example of a Eudicotyledons (dicotyledons) flowering plant and enter the details into the empty box.



Step 3

- » Find another example of a monocotyledon flowering plant and enter the details into the empty box [on page 4](#).
- » Annotate with characteristics seen and any other relevant information.



Step 1

Living Things

105123

ANIMALS

FUNGI

(moulds, yeasts,
mushrooms)

PROKARYOTES

(bacteria, algae)

PROTOCTISTIS

(paramecium,
amoeba)

PLANTS

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Ferns

Characteristics:

- ▶ true stem
- ▶ complex leaves with branching veins
- ▶ reproduce by spores

Moss

Characteristics:

- ▶ small
- ▶ grows close to ground
- ▶ no true root
- ▶ spore-producing capsule
- ▶ no true vascular system

Horsetails (equisetum)



Characteristics:

- ▶ reproduce by spores
- ▶ whorls of branches
- ▶ whorls fused into nodal sheaths

Step 2

Living Things

105123

ANIMALS

FUNGI

(moulds, yeasts, mushrooms)

PROKARYOTES

(bacteria, algae)

PROTOCTISTIS

(paramecium, amoeba)

PLANTS

Non-flowering

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Hydrangea



Characteristics:

- ▶ 2 seed-leaves
- ▶ leaves with branching veins

Characteristics:

- ▶
- ▶
- ▶

Monocotyledons

Palm Tree



Characteristics:

- ▶ one-seed leaf
- ▶ parallel veins in leaves

Step 3

Find another example of a monocotyledon flowering plant and enter the details into the empty box.

Characteristics:



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Biodiversity is the wide range of different plants and animals.

Biodiversity is environmentally important in maintaining sustainability.

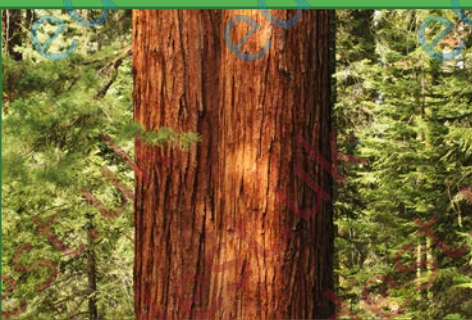
Plants biodiversity is important for the development of drugs, sources of food, pollination, dyes, fibres, fuel and fodder.

Biodiversity allows living organisms to adapt to changing conditions such as climate change.

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Task



Step 4

1. Study the variation chart on page 5.
2. Observe the leaves of different plants.
3. Search for a Redwood tree and a Banana plant.
4. Draw their leaves onto the chart.
5. Fill in the first two columns of the chart.
6. Look for leaves with a different structure.
7. Write the name of the plant onto the chart, there is usually a label close by.

Variation in Leaves

Name of plant	Drawing of leaf	Benefit of this plant to the animal	Benefit of this plant to Man
Redwood Tree			
Banana			

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Step 5

Think about the possible benefits of the leaf structure to the plant.

Complete the third column of the chart on page 5.

You can choose one of the following or write your own ideas:

- ▶ Spikes/thorns for protection from pests.
- ▶ Smaller surface area for reduction of water loss.

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Step 6

Focus on the 'possible benefits to Man' column.

Complete the last column of the chart.



- ▶ Consider how this plant could possibly benefit Man.
- ▶ Use the 'Useful information' paragraph on page 4 to help you.

