

CORAL CAY CONSERVATION & JFA EDUCATIONAL AIDS

LOWER PRIMARY SCHOOL WORKBOOK

ECOLOGY, RELATIONSHIPS & INTERACTIONS

- Prepared by -

Alexia Tamblyn, Director of Ecology, JFA

Craig Turner, Managing Director, JFA

Peter Raines, Managing Director, CCC

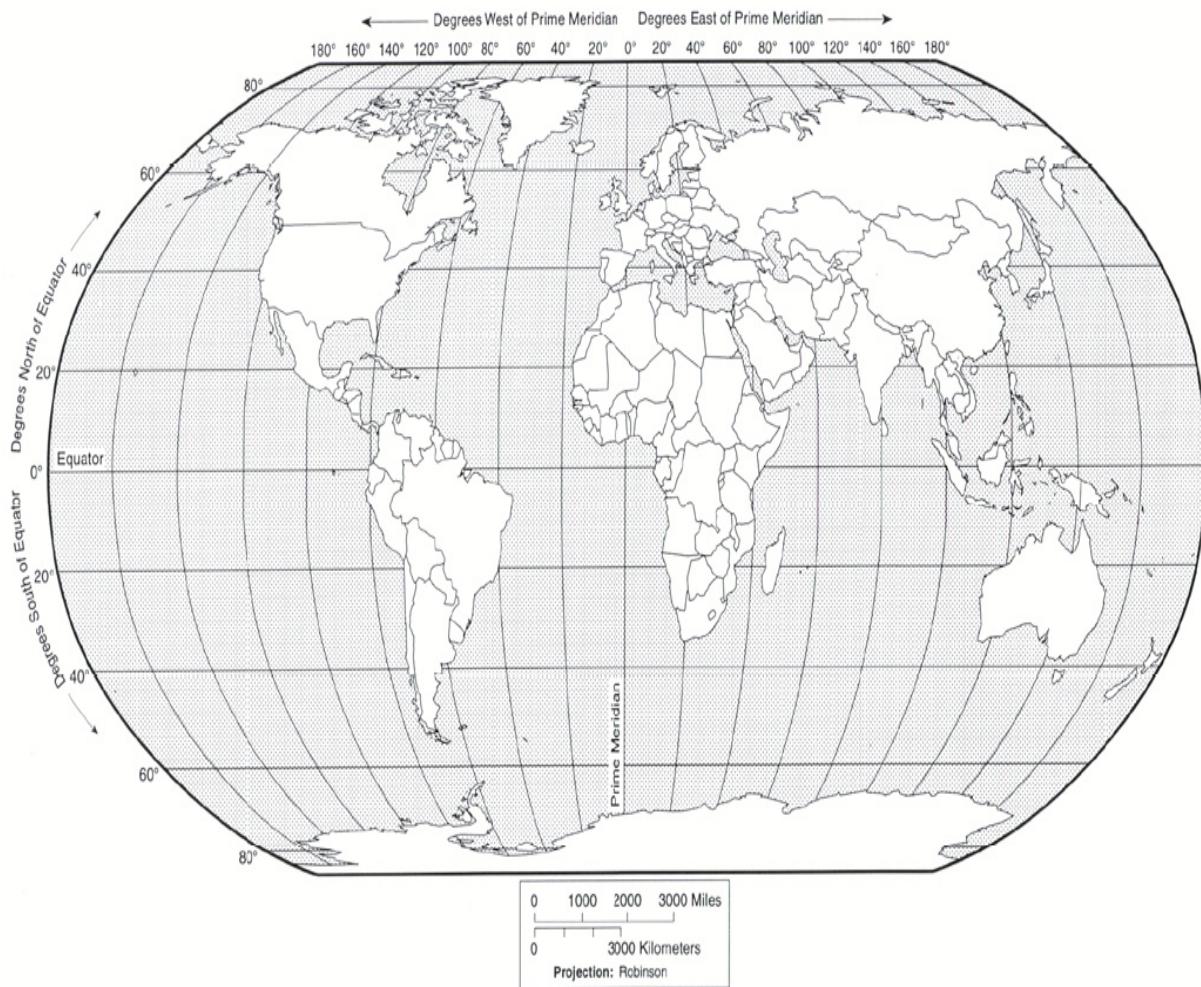
2009





Where are the Tropics?

Tropical forests are found in a band within the Tropic of Cancer and the Tropic of Capricorn that circle the earth above and below the equator. The tropics have a very warm, wet climate. **Colour the regions where tropical forests are found on the map.** A clue: Find the equator.





Ecosystems

An ecosystem is a community formed of living and non living things.

A **species** is a group of organisms that can interbreed and produce fertile offspring. Example: A fruit bat.

A **population** is a group of organisms of the same species living in the same area at the same time and capable of breeding. Example: A group of bats is called a colony.

A **community** is a group of populations living and interacting with each other in a habitat. Example: Bats live in forests, some eat fruit and some eat insects and even lizards and frogs. Bats are eaten by large birds and some mammals.

A **habitat** is the environment in which a species normally lives or the location of a living organism. Different species prefer different physical conditions. Think of an animal that lives in the habitats in the pictures.



Tropical rainforest:



Desert:



Coral reef:



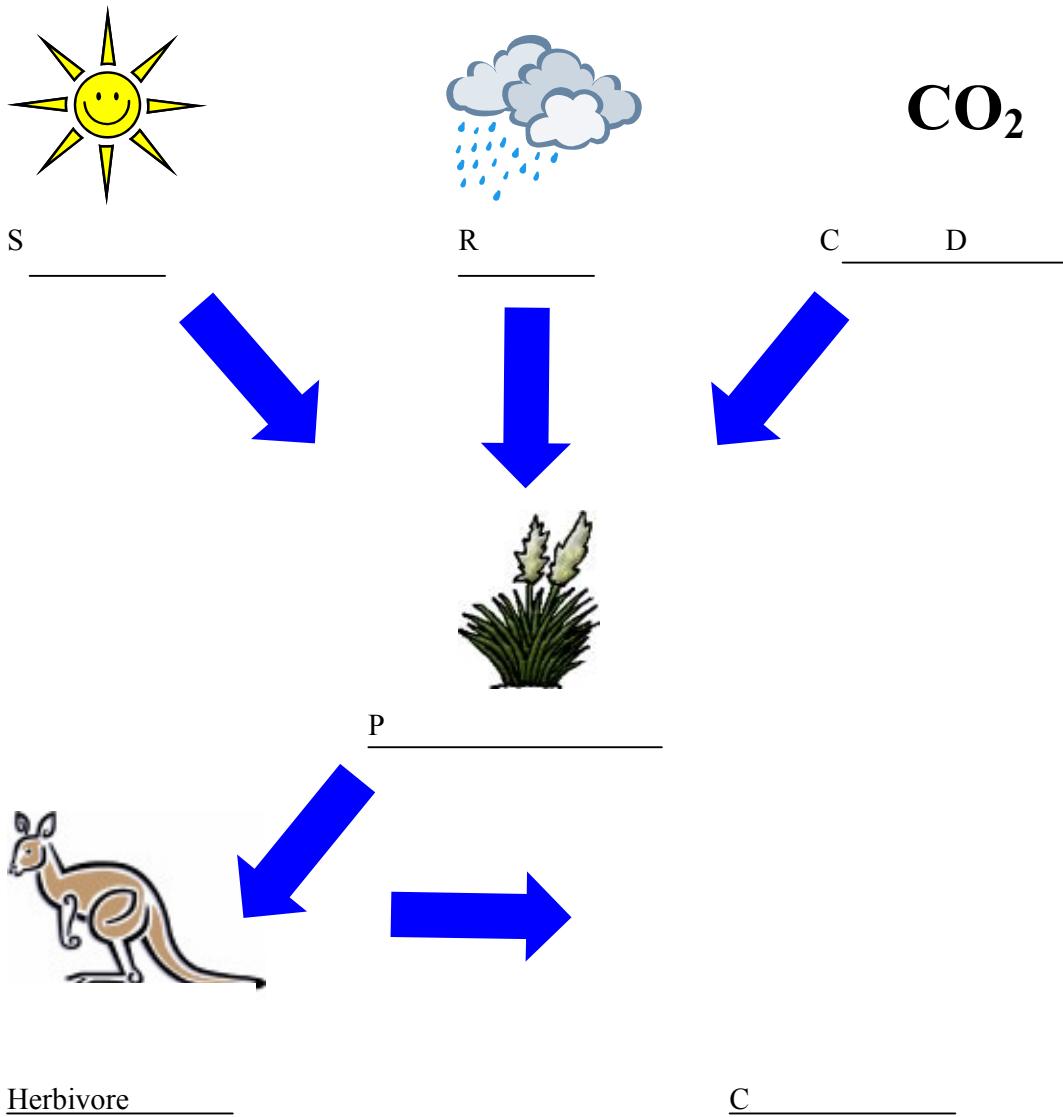
Polar ice cap:



Tropical Forests

Forests ecosystems constantly produce and use energy. Plants take in energy from the sun, water from rain and the ground and carbon dioxide and make sugar, which acts as a fuel. This is called **photosynthesis**. **Herbivores** (animals that eat plants) use the energy in plants to breathe, move, stay warm and grow. **Carnivores** or meat eating animals then eat animals that ate the plants, so the energy is always moving and never stops. This is known as the food chain.

Label the diagram below. We have given the initial letters and one complete word.



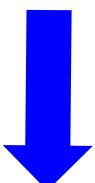


Make your own food chain

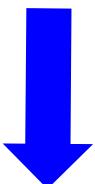
This time draw another food chain, with the names of plants and animals that you know.



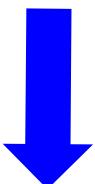
CO₂



Name a forest plant: _____



Name an animal that eats plants, an herbivore: _____



Name an animal that eats other animals, a carnivore: _____



Biodiversity

All living things are known as **biota**. Plants are known as **flora** and animals are **fauna**. Put these together and you get biodiversity. Tropical forests have a wonderful range of different plants and animals. What type of plants and animals are shown in the pictures? **Draw a line between the words and the pictures.** We've done one already.

PLANT KINGDOM



Grass

Flower

Tree

ANIMAL KINGDOM



Beetle

Bat

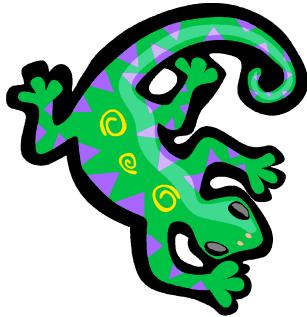
Bird



Frog

Butterfly

Snake



What is an Endemic Species?

An endemic species is a plant or animal that is **only** found in one specific region. It can be any type of plant or animal: a grass, tree, orchid or a bird, reptile, mammal for example.



Which species are which?

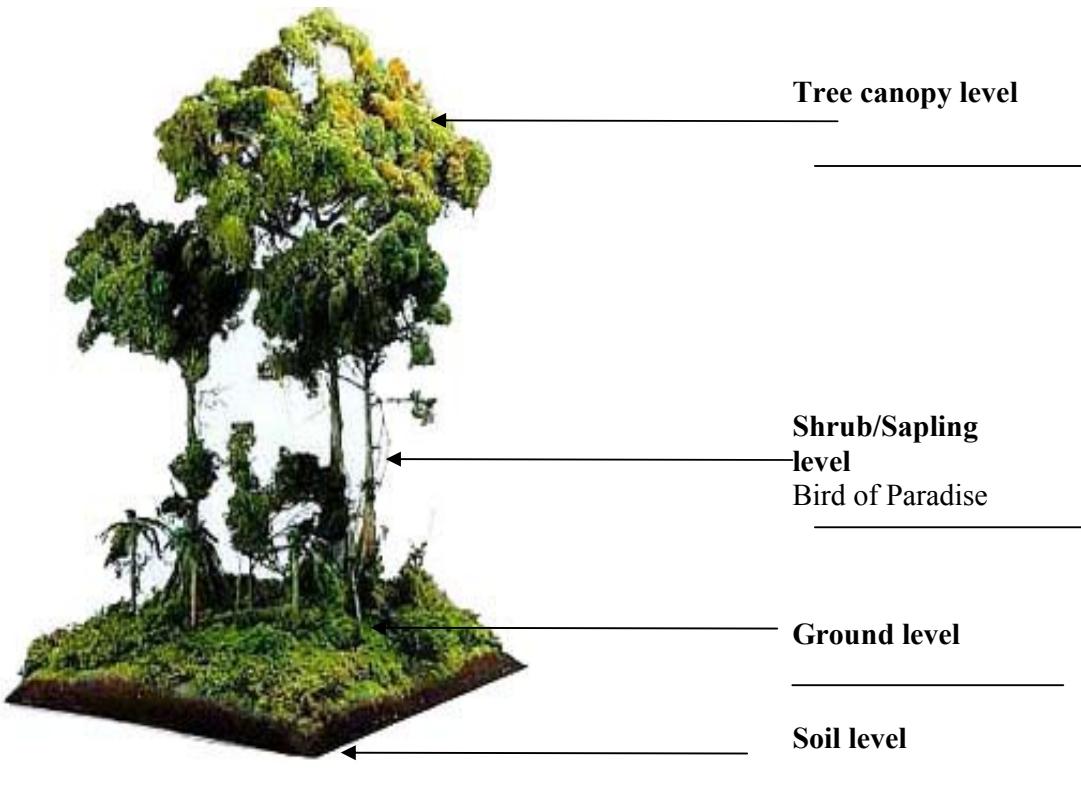
**Echidna
Harpy Eagle
Tree Kangaroo
Bird of Paradise
Birdwing Butterfly**





Layers of the Forest

There are many layers found in a forest, which provide plants and animals with somewhere to live. These levels receive different amounts of rainfall, sunlight, wind and nutrients. Can you guess which level of the forest is home to the animals in the pictures? **Write the name of the animal on each line.** We have done one already.



Butterfly



Worm



Tree Kangaroo

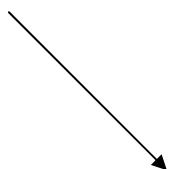


Bird of Paradise



Who Lives Where?

Draw in three other animals that you think live in each part of the forest. We have started with a bird in the tree canopy.





Threats to the Forest

Although animals and plants live in the forest, we need timber from trees to build houses, cook food and to keep us warm. But if we take too much from the forests, we damage the trees, land, rivers, plants and animals.



It is important for the animals, plants and for our future to use forests carefully. Healthy forests have lots of plants, trees growing closely together.

Draw a circle around the picture of a healthy forest.





More Threats to the Forest

There are many ways in which humans are damaging forests. **Can you list five human activities that affect forests?** The pictures may give you a clue.



Activity 1 _____

Activity 2 _____

Activity 3 _____

Activity 4 _____

Activity 5 _____



Conservation

Conservation is about ensuring the long-term survival of species and areas such as tropical forests. Conservation is about humans living in harmony with nature. This means that future generations will be able to use the earth's resources too. You can do lots to help save the environment. Circle the pictures that are good for the environment



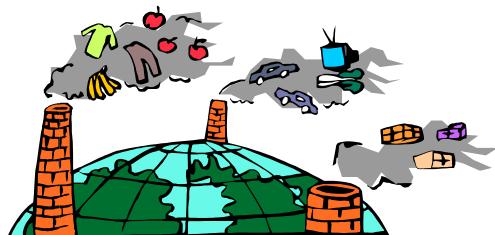
Waste dumping



Collecting and Recycling Litter



Planting native tree species



Industrial pollution



Hunting rare species



Help to protect forest animals and plants



How can you help?

Apart from the activities listed on the last page, there are many ways in which we can all help to save the forests.
Make a list of five things that you can do to help.

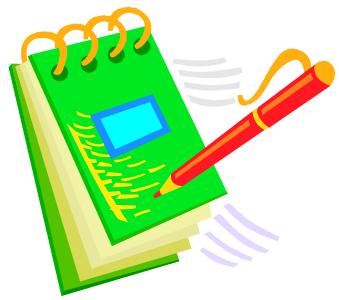
Activity 1 _____

Activity 2 _____

Activity 3 _____

Activity 4 _____

Activity 5 _____



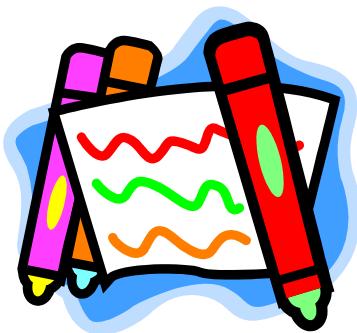
Your notes

This page is left blank so you can make notes on the topics that you have been taught.



Your ideas

This page is left blank so any ideas that you have about ecology and conservation can be written here.



Your drawing

This page is left blank so that you can draw pictures of animals and plants of your local area.