

# Rainforest Information Gap Activity

Three Different Texts

Three Different Responses

Completing a Grid

Questions to support information writing.

Questions to support persuasive writing.

# Rainforest Information Gap

These activities form a sequence that can be used in a variety of ways and are very suitable for adaptation to suit the children you are working with. The texts are quite dense and you might want to only use a few paragraphs. Like all information gaps you can either give different groups the same text to work on together and then jigsaw so that the new groups have all the texts, or you can give groups of three the different texts to start with.

There is a choice of question grids to complete from the text.

- A classification grid analysing the different conditions of the four forest layers and the characteristics of plants and animals living there. Once children have done this they will be equipped to sort the photographs in the Rainforest Connect 4 Activity and play the game.
- A question grid which could form the basis of a piece of writing as an information text
- A question grid which could be used to scaffold a piece of persuasive writing

The question sheets could be reduced in size or added to. We have mixed up straightforward information questions with open ended questions which will hopefully inspire discussion and hypothesis. The important point of encouraging children to jot notes in the spaces (they are deliberately kept small) remains.

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The webaddress for this activity is <http://www.collaborativelearning.org/rainforestinfogap.pdf>

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## COLLABORATIVE LEARNING PROJECT

Project Director: Stuart Scott

We support a network of teaching professionals to develop and disseminate accessible talk-for-learning activities in all subject areas and for all ages.

17, Barford Street, Islington, London N1 0QB UK Phone: 0044 (0)20 7226 8885

Website: <http://www.collaborativelearning.org>

## BRIEF SUMMARY OF BASIC PRINCIPLES BEHIND OUR TEACHING ACTIVITIES:

The project is a teacher network, and a non-profit making educational trust. Our main aim is to develop and disseminate classroom tested examples of effective group strategies that promote talk across all phases and subjects. We hope they will inspire you to develop and use similar strategies in other topics and curriculum areas. We want to encourage you to change them and adapt them to your classroom and students. We run teacher workshops, swapshops and conferences throughout the European Union. The project posts online many activities in all subject areas. An online newsletter is also updated regularly.

\*These activities are influenced by current thinking about the role of language in learning. They are designed to help children learn through talk and active learning in small groups. They work best in non selective classes where children in need of language or learning support are integrated. They are well suited for the development of oracy. They provide teachers opportunities for assessment of talk.

\*They support differentiation by placing a high value on what children can offer to each other on a particular topic, and also give children the chance to respect each other's views and formulate shared opinions which they can disseminate to peers. By helping them to take ideas and abstract concepts, discuss, paraphrase and move them about physically, they help to develop thinking skills.

\*They give children the opportunity to participate in their own words and language in their own time without pressure. Many activities can be tried out in pupils' first languages and afterwards in English. A growing number of activities are available in more than one language, not translated, but mixed, so that you may need more than one language to complete the activity.

\*They encourage study skills in context, and should therefore be used with a range of appropriate information books which are preferably within reach in the classroom.

\*They are generally adaptable over a wide age range because children can bring their own knowledge to an activity and refer to books at an appropriate level. The activities work like catalysts.

\*All project activities were planned and developed by teachers working together, and the main reason they are disseminated is to encourage teachers to work more effectively with each other inside and outside the classroom. They have made it possible for mainstream and language and learning support teachers to share an equal role in curriculum delivery. They should be adapted to local conditions. In order to help us keep pace with curriculum changes, please send any new or revised activities back to the project, so that we can add them to our lists of materials.

# Rainforests

## Text A

Rainforests are found in Africa, South America, Australia, Malaysia, Indonesia. Rainforests are all similar with hot weather and daily rain. The giant leafy trees absorb some of the carbon dioxide which we produce when we drive cars, fly in planes, or use electricity.

Many plants and animals living in the rainforest have adapted to this unique environment and could not survive anywhere else. The trees grow very tall, and have dense leaves all year round. This means the forest floor is dark, and does not have as much leaf litter as woodlands where leaves fall every year. Although the air is damp the soil is poor and quite dry. Most of the rain is trapped in the canopy. Plants have adapted to use what little light there is effectively; Fittonia has red colouring on its green leaves to trap light. The lack of light means there are not many fruits and flowers low down, so many animals living on the floor are carnivores.

Camouflage is essential both for predators and prey. Many insects look like leaves so that they cannot be seen easily. The Gaboon viper is a snake which looks just like a pile of leaves on the floor.

Because it is so dark it is like night time even at noon, so there are huge numbers of nocturnal animals here. These often have enormous eyes so they can see in the dark. Other animals have adapted to use other senses. The bats flying around between the trees cannot see, and avoid the tree trunks through radar. They find food through smell. The Lancehead snake finds food by sensing warm blood with heat sensors between their eyes. Others have a strong sense of smell. The forest floor is a difficult place to survive, so many plants and animals have adapted to live at the tops of trees instead.

Living 25-45 metres above the ground in the canopy presents many challenges. The animals living here have had to adapt in very special ways to take advantage of this unique environment. The huge supply of fruits, nuts and seeds, and the fact that there are not so many predators make it worth the effort.

Plants need light, but some cannot grow tall enough, so instead they hang from the canopy branches and their roots dangle and take water from the damp air. The plants that do this are called epiphytes. Many species of plants living in the rainforest cannot grow anywhere else.

# Rainforests

## Text B

Rainforests are found on or near the Equator. This means there are no changing seasons, and all year round there are 12 hours of hot sunshine and 12 hours of night. Because of this the trees grow very tall, and have dense leaves all year round. The wood from these tall trees is very beautiful and very strong. If the timber is sold it can get a high price. The trees do not have many lower branches so the mid layer of the forest is full of long straight bare trunks. The leaves that can be seen come from creepers and climbers, which use the trees for support as they grow up to find the light.

The tree tops stand out from the main forest canopy and this emergent layer is 60 - 70 metres above the ground. The sun is very hot. The heavy rain makes the branches slippery and the trees sway in the wind. This is home to birds with strong talons and wide wing spans as they fly long distances in search of food. The plants here can have their seeds dispersed by the wind, so the fruits are less dense. Eagles catch small monkeys for food.

The enormously tall trees growing in shallow soil have adapted by developing surface roots at the bottom. These roots stick out a long way and make a triangular shaped support like the ones you see on old buildings so they are called buttress roots. In the gloom trying to move amongst these roots and the trailing plants (lianas) is very difficult. The rainforests have been left undisturbed until recently because it is difficult for people to move around.

Rainforests are under threat from people. The huge trees provide valuable wood like mahogany, and in many areas trees are cut down to provide an income. As more people need homes forests are being cleared to make room for new towns. Once they have been destroyed these huge, fascinating and valuable environments will be lost.

If you want to find out more visit :

'[www.rainforestfoundationuk.org/kids](http://www.rainforestfoundationuk.org/kids)'    '[www.rainforest-alliance.org/kids](http://www.rainforest-alliance.org/kids)'    '[www.livingrainforest.org/kids/](http://www.livingrainforest.org/kids/)'

# Rainforests

## Text C

Rainforests are in low lying areas near to the equator. Some forests extend higher up the hill sides and are called cloud forests. The true rain forests are sometimes called jungles. When you think of a jungle you think of many plants growing around and into each other.

Many species of plants living in the rainforest cannot grow anywhere else, and many plants contain useful chemicals which we use as medicines. The hot wet climate is also good for growing plants that can raise a lot of money. If the trees are cut down coffee and cocoa can be grown. Some coffee and cocoa companies try to make sure that they do not harm the rainforest - if you look on the labels you will sometimes see "Rainforest Alliance" or other information about how the crops are grown.

The trees are so tall that going up and down to the floor would use huge amounts of energy. Instead many animals have adapted with ways of moving from tree to tree in the canopy without ever needing to go down to the floor. Gibbons have flexible shoulders, long arms and a very good grip so they can swing from tree to tree. Flying snakes can flatten out their ribs to enable them to glide short distances.

Below the canopy the air is damp, and a little light gets through. Through the dappled light you might get a glimpse of a quick moving climbing frog or a very slow sloth. For those who cannot swing or fly the tall straight trunks are the pathways from top to bottom. These animals have adapted to climb easily. The tree frogs have sticky pads on their feet to give them a good grip. Silky anteaters have long curly tails which wrap around the trunks and keep them safe while they sleep.

Rainforest Grid - write notes from the text you have read then compare notes with the rest of your group.

Layer	conditions	animals	plants	adaptations
emergent layer tree tops				
canopy				
mid layer				
forest floor				

# Rainforest - Question sheet with space for answers.

## Sheet 1 Questions to support information text writing

1. Where are rainforests found?	2. What is the weather like?	3. How many seasons are there?	4. How tall do the trees grow?
5. What are the 4 layers called?	6. What is it like on the forest floor?	7. How do animals avoid being eaten?	8. What is life like under the canopy? (sometimes called the mid layer)
9. How have plants adapted to live on the floor or under the canopy?	10. How have animals adapted to the floor and mid layer?	11. How do animals move from tree to tree?	12. Give three words to describe the canopy.
13. Why do some animals stay in the canopy all the time?	14. Give three words to describe the emergent layer.	15. Where can you get more information?	16. Write your own question about the rainforest.

Rainforest - Question sheet with space for answers.

1. Where are rainforests found?	2. What is the climate that produces rainforests?	3. How tall do the trees grow?	4. How are the trees different from woodland trees in England?
5. How have plants adapted to surviving with little light?	6. Why are rainforests important for human health?	7. Why are rainforests important for the global environment?	8. What is mahogany and why is it valuable ?
9. Give one way rainforests are under threat.	10. Give another way rainforests are under threat.	11. What can people do to help?	12. Where can you get more information?



## How to use an information gap activity.

Information gaps are useful for a variety of learners because they provide a structured opportunity to acquire some knowledge and then consolidate this learning by passing it onto others as well as acquiring further knowledge. Pupils are required to work together to succeed. When some questions have several possible answers a stimulus for discussion is created.

The most common way to use a gap with a whole class is to group the children into three groups each ascribed a colour or a letter A B C to match the text.

Each group works in pairs to read their text and answer the grid as best they can. Stronger readers can be paired with less fluent readers. New arrivals can be paired with partners who share their first language. It is very important that they understand that they will not be able to complete the whole grid and boxes may be left blank.

Each pair now joins two other pairs to make a group of six. The new group must contain a pair who have covered each text. (see diagrams below) They now share information to produce complete grids.

A1	A1	A2	A2	A3	A3
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A4	A4	A5	A5
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B1	B1	B2	B2	B3	B3
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B4	B4	B5	B5
----	----	----	----

C1	C1	C2	C2	C3	C3
----	----	----	----	----	----

C4	C4	C5	C5
----	----	----	----

A1 A1	A2 A2	A3 A3
B1 B1	B2 B2	B3 B3
C1 C1	C2 C2	C3 C3

A4 A4	A5 A5	A6 A6
B4 B4	B5 B5	B6 B6
C4 C4	C5 C5	C6 C6

### Reprographics

You would need

grouping cards as shown

(there are many examples on the website)

5 copies of each text

15 of your chosen grid.