

# Rainforests

# INTRODUCTION

Rainforests are hugely biodiverse places, rich in animals, minerals, plants, rain, mosquitoes, history, culture, adventure... so it should come as no surprise that rainforests are a great source of inspiration to cover a broad range of the national curriculum.

The **blue text** in this guide shows the presence of hyperlinks – just press the 'Ctrl' button and left click on the word/phrase to be transported to further information.





# ONLINE CLASSROOM RESOURCES

From Maths and Science, to English and Drama – even Art and Music – our Rainforest resources cover it all! Although the curriculum links in this guide are aimed at Key Stage 2, there are lots of lovely ideas and resources for younger students too.

All our resources are free to use. Just download what you need and let the journey begin!

We are constantly updating and adding to these so please keep checking our Learning Resources page for new stuff.

LEARNING RESOURCE	English	Maths	Geography	Science	Art	Music	P.E	Works well with
Where in the world are rainforests? [VIDEO]  Covering South America, Africa and Madagascar	Test their composition skills by making an acrostic poem. e.g. Africa has dense Forests where it Rains a lot. In the tall tree Canopy, a lot of Animals live.  For an extra challenge, watch the climate video too and play around with tenses and suffixes – e.g. hotter, wettest, climb/climbing/climbed quickly, dangerous	Use Google Map/Earth to find a scaled world map and measure how far apart the three rainforests in the video are. This is great practice using I.T. and working with large numbers.	Using either Google Earth or the world map in the introduction activity, see if they can remember where South America, Africa and Madagascar are.  Try watching the climate and layers videos as well, and then get your students to identify patterns in physical geography by comparing the rainforests of Madagascar, South America and Africa.	Combine with the animal fact files and layers video - do they notice any similarities in adaptations of rainforest animals? E.g. long arms for swinging, claws for climbing etc.  Then create a memory card game – they have to match the animal species with which rainforest of the world it's found in.	Broaden your students' experience of using a range of craft and design techniques by creating a colourful collage world map, highlighting the rainforests using recycled sweet wrappers.	Explore different musical styles and traditions by researching the sounds of the animals and people living in Africa, South America and Madagascar. Put on a concert for your school!	Research and recreate the tribal <b>dances</b> of Africa, South America and Madagascar.	What is the climate like in the rainforest? [VIDEO] What are the layers of the rainforest? [VIDEO] Which animals live in the rainforest? [VIDEO] Introduction to rainforests [ACTIVITY] Rainforest animals [FACT FILES]

# - LEARN AT CHESTER ZOO

### TEACHER TOPIC GUIDES - PRIMARY

	LEARNING RESOURCE	English	Maths	Geography	Science	Art	Music	P.E	Works well with
Af	Which animals live in the rainforest? [VIDEO]  Animal species found in the rainforests of frica, Madagascar and Ecuador  Which rainforest animals live at the zoo? [VIDEO]  Rainforest animal species found here at Chester Zoo	In combination with the layers video, widen your students' vocabulary by picking an animal from one of the rainforest layers and writing a diary entry for a typical day. What do they see, do, think and feel?  As they are personifying the animal, this is a great use of figurative language.	Watching the Chester Zoo video, your students can count and tally how many animal species appear on screen; we have around 500 species in total at Chester Zoo, what percentage of them were shown?  Try giving this figure as a fraction and a decimal; they could also round up to one decimal place.	Pick an animal species in either of the videos that we have a fact file for Then get your students to mark on the map (Introduction activity) where it comes from in the wild.	Count how many species belong to the 5 vertebrate groups based on the physical characteristics they see in these videos – convert this information into percentages and plot the findings into a bar chart, pie chart or line graph.  How would you describe an animal's eating strategy? Check the animal fact files to see if they're right.	Using these videos and the animal fact files for inspiration, get your students to create animal masks and become their favourite rainforest animal.	Recycle old cardboard and plastic to create rainforest animal noises – could be bird calls, pattering feet, flapping wings Use your imagination!	Whilst watching the video, get your students to mimic the movements of the animals on screen.	What are the layers of the rainforest? [VIDEO] Rainforest animals [FACT FILES] Introduction to rainforests [ACTIVITY] Realm of the Red Ape [TRAIL] Tropical Realm [TRAIL]
Int	that is deforestation? [VIDEO]  troduction to this major threat and its impacts worldwide	Encourage your students to communicate their ideas and emotions to others by writing a diary entry from the perspective of an animal who has had their home destroyed.  For an extra challenge, watch the lives in video and write as a tribesperson suffering as a result of deforestation — think about the impact it would have on their families and fellow villagers.	Whilst watching the video, get your students to <b>count</b> how many reasons are given for chopping down the trees.  You could get your students to research <b>rates</b> of deforestation in each of the different rainforests of the world and then plot these rates onto a <b>graph</b> .	Combine with English and make a word cloud showing why they think rainforests are important to people and what threats could arise from this.  Then watch the deforestation, products, lives in and important videos to explore human geography.	Watch this with the products video to show them how we depend on the rainforest for food and the impact we have when we take too much.  Using the fact files to help you, create a board game with lots of trees and rainforest animals – start changing the habitat by taking away trees, what would happen to the animals?	Create a rainforest display in your classroom over the course of a week - but on the last day, rip it all down and discuss how the destruction makes you feel.	Using a range of musical instruments, get your students to compose a piece of music that shows their feelings about deforestation.  Tip: Loud, low sounds work well – e.g. loud bang of a drum to represent trees falling, deep cello notes to portray sadness	Make up a chasing game where you split your group into three teams – the trees, the loggers and the conservationists. The loggers have to chase the trees – when touched on the shoulder, the trees fall to the floor and stay still. The conservationists have to 'plant' new trees by touching the fallen trees on the shoulder – they can then get up and run away!	What is deforestation? [VIDEO]     What products come from rainforests? [VIDEO]     Who lives in or near rainforests? [VIDEO]     Why are rainforests important? [VIDEO]     Rainforest animals [FACT FILES]     Sustainable palm oil resources (use filter on website)

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#### TEACHER TOPIC GUIDES - PRIMARY

LEARNING RESOURCE	English	Maths	Geography	Science	Art	Music	P.E	Works well with
Introduction to rainforests [ACTIVITY]  Activity sheets containing a blank wor map and rainforest layers	Use the layers video with the second activity sheet, alongside the animal fact files, to practice spelling unfamiliar words, like canopy, understory, lemur, sloth etc.  For an added challenge, why not restrict their list of animal species to just one geographical area — South America, Africa, Madagascar or South East Asia.	Using the included blank world map, research and plot onto it the latitudes and longitudes of the three rainforests shown in the location video. For an extra challenge, follow the instructions in the next box (Geography).  Ask questions like "How many degrees further north is X from Y?".	Use the included blank world map with the location video to identify the tropical rainforests of the world.  We've given them the Equator and Tropics of Cancer and Capricorn; see if they can write on latitudes and longitudes, identify the Northern and Southern Hemispheres, and locate the Arctic and Antarctic Circle.	Occurring all along the Equator, rainforests are a great example of a naturally occurring pattern; their climate, vegetation structure and even animal adaptations are similar in different geographical locations.  Ask your students why this might be and get them to come up with a line of scientific enquiry to answer this question.	Using different types of creative media (e.g. paint, pens, pencils, fabric) shade in the different rainforests of the world after watching the location video.  Add some colour to the rainforest layers by experimenting with paint mixing!	Draw a line between the Equator and the Tropic of Cancer, and another line between the Equator and the Tropic of Capricorr; you should now have 5 staff lines on the world map, ready to receive your musical composition!	Using long pieces of rope, copy the world map design on your school's playing field – the bigger the better!  Everyone start where Britain would be; shout out the location of a rainforest, the first person to run, skip or jump to the correct location on the map wins!	What are the layers of the rainforest? [VIDEO] Rainforest animals [FACT FILES] Where in the world are rainforests? [VIDEO]
Sustainable palm oi recipe pack [ACTIVITY]  Step by step instruction on how to make fun animal themed bakes using sustainable palm oil	discuss the statements about palm oil on page 4 of the recipe pack; then each group presents to their classmates what they	Pick a recipe; practice calculations using the measurements of each ingredient.  E.g. How many times more butter than soft brown sugar?  What if we wanted to make a cake twice that size?	Take a look at our Sustainable Palm Oil resources, then use this recipe pack to teach your students about the interactions between physical and human processes.	We get nutrition from what we eat - and palm oil is in a LOT of things we find tasty!  Set a homework task – how many products can they find at home containing palm oil?  What impacts do they think this might have on the natural world?	As well as tasty recipes, there are lots of facts and diagrams all about palm oil – start a scrap book with your students, asking them to use their books to recap what they've found out at the start of each session.	Look at the end products of the recipes What noise do your students think they would make by biting into them? E.g. Turtle cake – squish. Hero biscuits – crunch. Recreate these sounds using musical instruments in your classroom!	Change a recipe into circuit training – replace the ingredients with actions.  E.g. Cassowary splatjack: 100m race 25 star jumps 3 press ups 4 lunges etc.	Sustainable palm oil resources (use filter on website)
Rainforest animals [FACT FILES]  Includes aye-aye, okapi, chimpanzee, jaguar, lemur, sloth, butterfly, frogs, python cassowary, orangutans tapir and elephant		Make a tally: How many animal species are in the fact files for each rainforest? How many of these are "Endangered"? Use this information to find out the percentage and create some bar charts.	Use these cards and the two rainforest animal videos to create a memory game – match the animal to the rainforest it's found in out in the wild.  This helps to develop your students' locational knowledge.	Use these alongside the two rainforest animal videos to explore skeletons, muscles and movement – group the animals into swinging, climbing, swimming etc. and look at how their bodies have become adapted for that purpose.	Print some fact files and cover up the picture of the animal. Then get your students to <b>sketch</b> what they think the animal looks like based on its description Reveal the picture!	Research a chosen rainforest species, then use your voices to recreate their sound.  Rainforests are noisy places, so have some class members creating background noises with rain sticks – play around with volume and pitch, which sounds work best?	Allocate animal species then have a 100m race – remember, your students are racing as their animals so the sloth won't be the winner!	Which animals live in the rainforest? [VIDEO]     Which rainforest animals live at the zoo? [VIDEO]     Other animals (remove rainforest filter)     [FACT FILES]

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# STUFF 10 DO IN THE 200!

Planning a **trip** to the zoo? What better way to teach your students all about rainforests than talking to one of our experts on the topic!

### DISCOVERY WORKSHOPS

Join us for our extremely popular 50 minute Key Stage 2 Rainforests workshop, where we explore the tropical rainforests of the world, some of the major threats that rainforest plants and animals face today and why together we need to work so hard to protect them!

Our friendly and knowledgeable Education Officers tailor the level of the session to your class' needs - whether you'd like a general introduction to this exciting topic or come prepared with lots of existing knowledge and questions to ask us - just let us know before we start!

#### SELF-LED TRAILS

These two trails explore the rainforest areas of the zoo and are designed to be modular additions to the **Introduction to Rainforests** activity sheets – so pick and choose whichever one(s) you like!

LEARNING RESOURCE	Contents	Curriculum Links	Works well with	
Realm of the Red Ape [TRAIL]	This trail starts at the entrance to the Realm of the Red Ape – make sure you print out the <b>introduction to rainforests activity</b> , as you'll need the first page to draw Borneo onto the map!  Animal species included: Bornean orangutans, reticulated pythons, red-tailed racers.	Science Adaptations (physical and behavioural) Food chains  Maths Subtraction Division Geography Locational knowledge Art Drawing	Introduction to rainforests [ACTIVITY] Rainforest animals [FACT FILES] Which animals live in the rainforest? [VIDEO] Which rainforest animals live at the zoo? [VIDEO] What are the layers of the rainforest? [VIDEO]	
Spirit of the Jaguar [TRAIL]	Using the Spirit of the Jaguar exhibit, the first step is to locate South America on the world map (introduction to rainforests activity).  Animal species included: Jaguars, sloths.	Science Adaptations (physical) Nutrition Food chains Maths Multiplication Addition Geography Locational knowledge	Introduction to rainforests [ACTIVITY]     Rainforest animals [FACT FILES]     Which animals live in the rainforest? [VIDEO]     Which rainforest animals live at the zoo? [VIDEO]     What are the layers of the rainforest? [VIDEO]	

**Note:** Our habitats are designed especially for our animals, with lots of hiding places, foliage, and large indoor and outdoor areas. To give them the best welfare we also sometimes need to restrict access. If you're coming to see a certain animal, please give us a call to check before you visit.

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#### I SPY...

We have a diverse range of rainforest animals at the zoo for you to explore – why not watch our online video, Which rainforest animals are at the zoo?, and create your very own checklist ready for your visit!

Must see Rainforest habitats at Chester Zoo include:

Tropical Realm, Spirit of the Jaguar, Realm of the Red Ape, Butterfly Journey, Monsoon Forest – the LARGEST indoor zoo exhibit in the UK!

If a Zoo trip sounds like a good idea, give our **team** a call and we can help you plan your day. We offer educational rates and group discounts, so it needn't break the bank!

#### THINGS TO DO NEXT:

- Search our online resources by age group, subject area, keywords or resource type
- Check out our award winning Discovery Workshops
- · Visit our general animal info pages
- Keep up to date with the latest news and events
- Pop over to our Act For Wildlife site for blogs from locations around the world
- If you'd like to chat to someone, contact our Learning Team

# CONTACT THE TEAM:

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