



## EDUCATOR GUIDE: FORESTS

### INSTRUCTIONS

1. Direct students to watch the [Our Planet Forests episode](#) on YouTube.  
**OR** discuss forests on a class call, and show the [Forests Biome Tour video](#) on ourplanet.com to fuel a class discussion on the characteristics and importance of forest ecosystems to people, the wildlife and the planet. Tips for using videos to prompt constructive discussions can be found in the [Our Planet Their Future Educator's Guide \(PDF\)](#).
2. Direct students to watch '[How to Restore Our Forests](#)', on ourplanet.com, narrated by Sir David Attenborough.
3. Direct students to spend some time visiting the Forests biome on our [explorable globe](#). Students should then use the information in the video above and collected from the interactive globe to complete the questions and tasks below. Suggested answers are included in this version.

<b>1. List examples of different forest types and the species that can be found there</b>	
<b>Forest Types</b> (target: __)	<b>Forest Species</b> (target: __)
Temperate deciduous forest, Temperate coniferous forest, Temperate mixed forest,	Deer, foxes, badgers, squirrels, bears, woodpeckers,
Boreal coniferous forest	Elk, moose, lynxes, hares, pine martens
<b>2. Approximately how many square kilometres of forest have been lost in the last 25 years due to human activities?</b>	
In 25 years, one-million square kilometres of forest have been lost due to human activity.	
<b>3. On average, how many trees are being cleared annually?</b>	
Over ten billion trees are being cleared each year.	
<b>4. Why do we need forests and how can they help in the fight against climate change?</b>	
<ul style="list-style-type: none"> <li>• Forests absorb carbon from our atmosphere and store it in their trunks, roots and the soil.</li> <li>• They remove approximately 15 billion tonnes of carbon dioxide each year.</li> </ul>	



**5. What human activities are releasing dangerous amounts of carbon back into our atmosphere? Explain why this is a problem.**

- Clearing and burning our forests
- It is increasing the rate of climate change

**6. Complete the table below. List the actions that can be taken to restore our planet's forests and explain the impact each one will have. Some have been done for you.**

Action	Impact
Protect ancient forests	These precious forests still host their entire natural mix of species, and trees young and old. Left undamaged by humans, plants and animals in these forests will spread out to colonise new ground.
Use forests carefully and use 'good wood'.	Carefully extracting wood and other products and managing our forests well means we can use wood sustainably whilst allowing forests to grow and remain standing. 'Good wood' - used for a table or a house - locks away carbon. As we plant more trees to replace those cut down, they absorb more carbon.
Farm trees	Farming trees like we do with other crops by creating new plantations. These new generation plantations will: <ul style="list-style-type: none"> <li>- Allow wildlife to pass through natural forest corridors,</li> <li>- Benefit local communities and economies.</li> <li>- Be planted on existing cleared land so they don't replace existing natural forests.</li> </ul>

**7. List three ways communities or pioneers can help rewild and restore our forests:**

- Better/ efficient farming will create more wild space for our forests to return
- Planting trees by hand
- Using technology such as drones to plant seeds, to help speed up natural processes.

**8. List five benefits of protecting our forests and using their resources sustainably:**

- Our amazing ancient forests will be protected for future generations
- We'll be able to harvest all the timber we'll ever need
- We'll be able to help stabilise our climate
- We'll have more natural forests than ever before
- We can build a future where our cities will be filled with trees: giving us shade and cleaning the air. This will make us healthier and happier.

**9. Watch [this short clip](#) and explain why forests need predators:**

Predators keep the plant-eaters under control which helps forests to recover and restore their natural balance.

**10. Draw in arrows to show energy transfer in the food chain below.**

Vegetation (Grass/plants/lichen/willow leaves) → Caribou → Wolf



**11. What would happen to populations of vegetation and Caribou if the wolf population declined? Explain why.**

If the wolf population declined, the population of Caribou would increase as they would be at less risk from predation. If Caribou numbers increased, the vegetation would suffer as there would be greater number of Caribou feeding on the vegetation. This means there would be less opportunity for the vegetation to mature into adult plants and trees.

**12. Writing Task**

**Imagine you are a TV reporter. You've been asked to present an exclusive News Feature explaining the vital role forests play on Earth, the threats they face, and the solutions mankind can employ to restore them.** You will need to plan and write a 3-5 minute speech (aim for half a side to a side of A4). Try to include a range of techniques to engage and persuade the viewers at home, for example: facts and statistics, rhetorical questions, lists of three and direct address (you, I, we). Once you have written your speech, why not practise your presentation skills and ask a family member to film you delivering it news-report style.

## LINKS TO THE SUSTAINABLE DEVELOPMENT GOALS



**Goal 15:** Sustainably manage forests, combat desertification, halt and reverse land degradation, halt biodiversity loss

<https://www.un.org/sustainabledevelopment/biodiversity/>

Ensuring a healthy and productive future for our grasslands also contributes to other SDG goals, including the following:

**GOAL 2:** Zero Hunger

**GOAL 12:** Responsible Consumption and Production

**GOAL 13:** Climate Action



## DISCUSSION PROMPTS

*Use these prompts to generate a class or small group discussion online based on the Forests episode of Our Planet, or videos on [ourplanet.com](http://ourplanet.com).*

**Have you ever spent time in a forest or woodland? What did you do in the woodlands? What was special about the place? If they have not done so, would you like to visit a forest? Why?** Allow the young people to begin by discussing their own experiences and impressions.

**Imagine you are in the jungle. What is this place like? What are some of the sounds that you might hear here? What might you see here? What would it feel like? Would you like to visit the jungle? Why?** To create a relaxed group setting, give young people time to talk together in pairs, before sharing their thoughts with the whole group.

**Why are forests important?** Encourage young people to come up with as many ideas as they can. Many foods and medicines come from jungles, they clean the air we breathe, they regulate the earth's climate, they are home to millions of plant and animal species, as well as millions of people.

**What animals, plants and insects may live in forest or jungle? Mammals** such as lemur, bear, deer, squirrels, raccoons, badgers etc. **Minibeasts** like butterflies, beetles, spiders, flies, bees, wasps etc. **Birds** such as nuthatch, rooks, eagles, great hornbill etc. **Amphibians** such as newts, reptiles such as snakes etc. **Plants** such as ivy, wildflowers, bracken etc. **Fungi and lichens**, and of course trees!

**Think of all the ways that forests have touched your life today. What have you used that comes from a forest?** Encourage young people to come up with as many ideas as they can, including furniture, building materials for floors, doors and window frames, fruits, paper, tissues, clean air, pencils, toys, musical instruments, boats, medicines, fences, lollipop sticks, rulers – the list goes on!

**What does the ice cream that you get from the supermarket have to do with the future of orangutans?** This question gives the opportunity to look at the impact of deforestation. With younger young people it may help to provide extra clues by writing the following flash cards: palm oil, orangutan, jungle, ice cream, plantation. Ask young people what the links between the cards are.

**What threats are forests and jungles facing?** Clearing for farming land and housing, fragmentation, logging for timber, increased noise and light pollution from human settlements.

**What can we do to protect the jungles and forests?** At this point it is important to give young people the chance to think about the importance of sustainability and preserving forests for future generations. We can all think carefully about how we use forests. Small steps, such as saving paper, can make a big difference. Any wood or paper bought for school or home should be FSC.

Helping local communities to care for and protect the rainforests. It is important to help young people understand that they can do something about the challenges that our planet faces. Buying sustainable palm oil products and telling parents, shopkeepers and others in their community why it is important.



## EXTENSION ACTIVITY IDEAS

### KS2-3

Activity Idea	Subjects
Create a collage display from magazines and materials showing all the everyday products and benefits that we get from forests and jungles on one side, and all the wildlife that depend on forests and jungles for their survival on the other.	Art Geography Science
Identify different tree species in your garden or street using the Seek app and research the differences between them. Make bark rubbings, outlines of leaf shapes, seed types and field sketches to illustrate how they are similar and different. Discuss why the trees may be so different, and how their different characteristics may help them in different ways.	Science Art Outdoor learning
Make a diorama of a forest habitat (live workshop on Wednesday 6 <sup>th</sup> May on #LearnToLoveNature Facebook page, then video available on Facebook and <a href="http://wwf.org.uk">wwf.org.uk</a> )	Art Geography

### KS3-4

Activity Idea	Subjects
<p><b>Design and cook a sustainable, deforestation free meal!</b> <i>Visit <a href="http://WWF.com">WWF.com</a> for <a href="#">tips on sustainable eating</a>.</i></p> <p><b>Design brief:</b> To design and make a tasty main meal product using only sustainable products and ingredients.</p> <p>You will need to avoid ingredients that contain things like unsustainable palm oil and ensure that if you include meat or fish in your dish it is sustainably produced.</p> <ul style="list-style-type: none"><li>• First, design and label your dish. Ensure to include a list of ingredients and where you are sourcing them.</li><li>• Next, write out your method/recipe so that you're able to share it with others!</li><li>• Lastly, cook and enjoy your sustainable planet-friendly dish!</li></ul> <p><b>Extension:</b> Why not make it a three-course meal? Plan a starter and dessert dish using the same brief. Or have a go at planning out a sustainable weekly menu that avoids palm-oil.</p>	Food Technology



<p><b>Estimate the age of a tree</b></p> <p>Using a simple calculation, you can find out how old living trees in your local area are! Could you have an ancient woodland near you? Use maths to discover more about the forest habitats and trees close to home.</p> <ul style="list-style-type: none"><li>• Choose a deciduous tree (a tree that drops its leaves in Autumn/Fall).</li><li>• Use a tape measure to measure the circumference of the tree (in cm) at approximately a 1 metre height.</li><li>• If your chosen tree is in an open space, divide this measurement by 2.5</li><li>• If your chosen tree is in a woodland, divide your circumference measurement by 1.25.</li><li>• The number you are left with is an approximate age of the tree!</li></ul> <p><b>Hint:</b> If you want to be super accurate, use the WWF-UK Seek App to help you identify the tree species. You can then look online to find the exact number to divide your circumference by.</p> <p><b>Extension:</b> Create a map/guide of the different trees in your local area, include their species type, their ages and their location!</p>	<p><b>Maths</b> <b>Biology</b></p>
<p>Imagine your local council has decided to clear an area of woodland to make room for a new housing estate. <b>Write a persuasive formal letter to the council explaining the detrimental effects clearing woodland could have both locally and on a more global scale and the benefits of keeping wooded areas.</b> Remember to use formal language and persuasive techniques to help you make a convincing case.</p>	<p><b>English</b> <b>Citizenship</b></p>
<ul style="list-style-type: none"><li>• Explore a woodland or forest with the WWF Seek App, a camera and/or a notepad. Identify and make a note of as many different species as possible including plants, animals and insects and the niches they live in.</li><li>• When you get home, use your findings to create a large poster presentation on the species that live in a temperate forest:<ul style="list-style-type: none"><li>- Be as creative as you like and paint, draw, collage or digitally produce an impression of your local woodland.</li><li>- Try to demonstrate the different levels that might exist, from the substrate on the ground, to small shrubs and new trees to ancient towering Oak trees.</li><li>- Next, add in the species identified on your walk that live in each layer. Research and label any adaptations these species have.</li></ul></li></ul> <p><b>Extension:</b> Draw arrows between the species on your poster to create a “food web” showing energy transfer in a forest biome.</p>	<p><b>Biology</b> <b>Art</b> <b>Geography</b></p>