



**WVS** EDUCATION

# THE IMPACT OF INFRASTRUCTURE

**WVS.ORG.UK/EDUCATION**

# ENTRY TICKET – SHOW WITH YOUR FINGERS...

How sure are you that you can explain how human land use affects environments and impacts animals?



1 – Unsure



2 – Slightly  
sure



3 – Quite  
sure



4 – Certain

# **PART 1:** **DISCOVER THE ISSUE**



# PICTURES FROM A VET

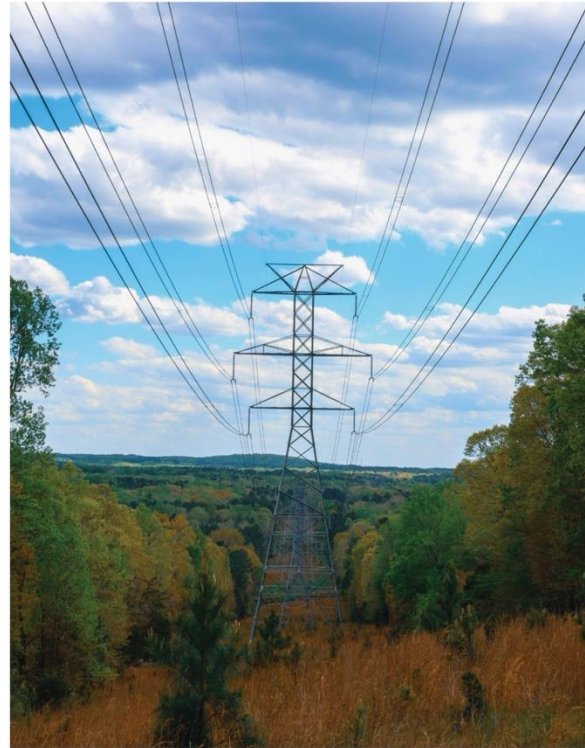


Look at the photographs.

What do you **think**?

What **puzzles** do you have?

What questions would  
you like to **explore**?



# WVS VET NURSE REPORT

Hi! I am a vet nurse at a WVS clinic in Costa Rica. I have been taking care of a baby howler monkey called Valery. Valery and her mother were injured by unsafe powerlines. Valery suffered burns to her hands and her mother was sadly killed.





# DISCOVER THE ISSUE

People have different ideas about how land should be used.

Infrastructure, such as roads and power, is needed to support growing populations but this has an impact on the environment.



# COUNTRY FACTFILE: COSTA RICA

- Costa Rica is a country in Central America.
- It has a population of over 5 million people.
- Almost half of the country is covered in tropical forest.
- It is marketed as a good place to visit for eco-tourism because of its biodiversity.





# IS COSTA RICA ENVIRONMENTALLY RESPONSIBLE?

Read the statements about Costa Rica.

Decide if each statement shows that the country is being environmentally responsible or not.

Once you have read all the statements, come to a conclusion to answer the question:

**Is Costa Rica environmentally responsible?**

Costa Rica pledged to become carbon neutral by 2021.	80% of Costa Rica's energy is from renewable sources, mainly hydroelectric.	Nearly 30% of the country has been made into a national park or reserve.	Costa Rica has a reforestation programme to offset carbon emissions by planting trees.
As the country develops, areas of forest are being cleared to build infrastructure.	Powerlines criss-cross the forest to supply energy.	Powerlines are often not looked after. If the insulation around the cables breaks, then animals are at risk of electrocution.	Animals such as Howler Monkeys cannot travel around the forest because trees are removed.
Powerlines are constructed as cheaply as possible so are often uninsulated and unsafe.	Powerlines are often connected to high-voltage transformers, making them more dangerous.	If trees are removed, animals use powerlines as aerial walkways to travel between areas of forest.	Costa Rica is a small country but incredibly contains 5% of the world's biodiversity. It relies on eco-tourism to provide jobs for local people.



**PART 2:**  
**JOIN THE ADVENTURE**

# QUESTION TO INVESTIGATE

What impact does developing infrastructure have on howler monkeys?

Read the factsheet about howler monkeys to learn how their environment is being changed to provide power for people.





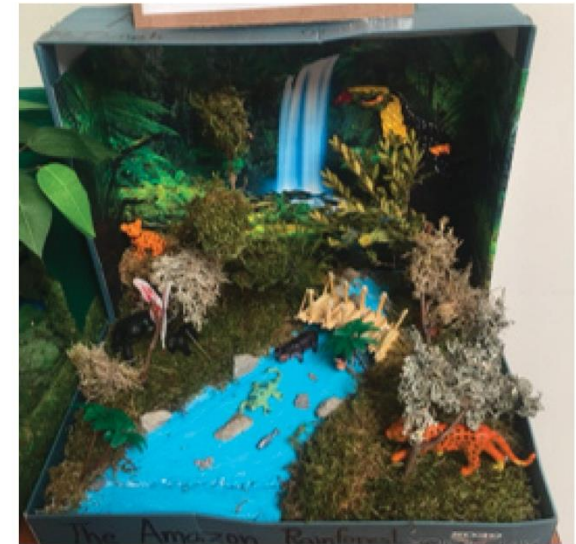
# MAKE A DIORAMA

You have learned about howler monkeys and how their environment is being impacted by changing infrastructure.

Make a diorama to show your knowledge.

Your diorama should include:

- The rainforest environment
- The powerlines
- Howler monkeys
- Other wildlife which could also be affected by the powerlines



**PART 3:**  
**BE THE CHANGE**



# WVS AND NOSARA REFUGE FOR WILDLIFE



- Refuge for Wildlife in Nosara, Costa Rica is one of the charities that WVS supports.
- We send supplies such as bandages and burn cream to treat howler monkeys injured by powerlines.
- WVS also sends incubators and volunteers to care for orphaned baby monkeys.



# HOW CAN THINGS BE CHANGED?

Refuge for Wildlife run a campaign called 'Stop the Shocks'. They want to raise awareness about unsafe powerlines to try and prevent electrocutions.

Money raised by Refuge for Wildlife is used to:

- Trim trees to prevent wildlife getting close to powerlines
- Build rope bridges to provide safe aerial pathways for wildlife
- Insulate the powerlines and transformers to prevent electrocution





# BE AN ANIMAL CHAMPION!

Look at your diorama.

Make changes to show what could be done to make the environment safer for animals, particularly howler monkeys.



# EXIT TICKET – SHOW WITH YOUR FINGERS...

How sure are you that you can explain how human land use affects environments and impacts animals?



1 – Unsure



2 – Slightly sure



3 – Quite sure



4 – Certain





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