

## Malaria Activity 2: Treating & Preventing Malaria

*This activity is about malaria. Here in the UK malaria is often only thought about when travelling abroad for a holiday or when contracted by a celebrity. But malaria is an every day issue for billions of people across the world and is responsible for almost 900,000 deaths a year, 90% of which occur in Africa. In this activity your students will be learning about the disease and its consequences, and also the mosquitoes that spread it.*

*The main issue to take away from this activity is the drastic difference that simple actions such as distribution of mosquito nets and provision of anti-malarial drugs can make to the lives of people who live in areas with a high risk of the disease.*

### Context

This activity was provided by Jane Goodall's Roots & Shoots UK ([www.rootsnshoots.org.uk](http://www.rootsnshoots.org.uk)) a not for profit charity run by the Jane Goodall Institute (UK).

Each Roots & Shoots activity can either stand alone or be used as part of a themed mission. Each mission is centred around a possible future that could happen if we fail to take care of people, animals and the environment today and comes with a mission briefing comic and teacher notes – find out more at

<http://www.rootsnshoots.org.uk/resources/>.

In the [Waterworld Mission](#), Chrono-bot RooT5 travels to a future where East Anglia is flooded and marshy. This has led to conditions allowing mosquitoes to breed continuously and spreading malarial parasites to humans through bites. These parasites cause the disease malaria in humans.



## **Jane Goodall's Roots & Shoots Awards**

By completing this activity sheet you may be eligible for an award! See the end of this document for details.

### **How long will it take?**

This activity can be completed in one lesson period.

### **What do I need to make it work?**

Most of the background information on this is available from the following web links:

General Information

<http://www.cdc.gov/malaria/>

<http://www.who.int/mediacentre/factsheets/fs094/en/>

<http://www.rollbackmalaria.org/keyfacts.html>

Lifecycle of Malaria and Mosquitoes

[http://www.travelhealth.co.uk/diseases/malaria\\_lifecycle.htm](http://www.travelhealth.co.uk/diseases/malaria_lifecycle.htm)

<http://goo.gl/iiZBx> (video)

Malaria-Risk Map

[http://en.wikipedia.org/wiki/File:Malaria\\_map.PNG](http://en.wikipedia.org/wiki/File:Malaria_map.PNG)

Symptoms of Malaria

<http://www.nhs.uk/Conditions/Malaria/Pages/Symptoms.aspx>

Prevention of Malaria

<http://en.wikipedia.org/wiki/Malaria#Prevention>

Treatment of Malaria

<http://www.traveldoctor.co.uk/malaria.htm>

## **Part 1 – What is malaria**

*The first part of this activity is about learning what malaria is and how it is transmitted.*

Using the resources listed above, take the class through the malaria life cycle. If you have completed Malaria Activity 1 (downloadable from the Roots & Shoots website), then you



need not do this.

Malaria has a particular lifecycle that involves the anopheles mosquito. The infection is passed from person to person through the bite of infected mosquitos. (see <http://malaria.wellcome.ac.uk/node40036.html> for a lifecycle diagram and 'tour')

With an image of the malaria lifecycle up on a board/whiteboard, explain that stopping the spread of the disease is all about breaking the cycle of infection. You could ask your students at this point if, by looking at the life cycle, they can spot any places where the cycle could be broken and why. As a prompt, if they have suggested things like mosquito nets in the brainstorm, ask them why they think they are used. The product of this section should be a list of about 4 to 6 prevention or treatment options, which can be used in part two of the activity. These could include:

- antimalarial drugs - these will help infected people recover, meaning that they are no longer carrying the parasite (so they are no longer a reservoir of infection)
- mosquito nets - these prevent the mosquitoes biting and infecting people at night
- scientific research - ongoing research could lead to new drugs to treat the disease, or possibly a vaccine to immunise people
- spraying of insecticide - spraying around where people live to control the mosquito population decreases the chance of people being bitten and therefore infected.

## ***Part 2 – balloon debate***

Divide your class up into a number of teams. Inform that each team represents a different treatment or preventative measure, as produced in part one, and that they need to make their case to the government/funding body as to why their method is the best way to stop malaria. Allow them 10 minutes to prepare an argument, answering questions as they arise. Each group will then have 2 minutes to put their case forward, with the rest of the class listening. They may use images etc. if they have them available. Once all groups have presented, the class will vote on which method they support.

To finish, explain that a combination of methods is ideal, and that to do these correctly, a thorough understanding of the disease and its vectors is essential, so scientific research must be funded and conducted as well as direct prevention and control measures.

## ***Further work***

You can download further activities on the lifecycle of malaria, and raising money to help



people affected by malaria from the Roots & Shoots website.

### ***Why not enter the Jane Goodall's Roots & Shoots Awards?***

This resource was provided by Roots & Shoots UK, a not for profit charity run by the Jane Goodall Institute (UK). One of the aims of Roots & Shoots is to inspire young people to care for people, animals and the environment, and one of the ways that we like to do this is by running annual awards every December.

Every school that uploads a story about their activities to the Roots & Shoots website at [www.rootsnshoots.org.uk](http://www.rootsnshoots.org.uk) automatically wins a bronze award certificate to display at school, and the best stories win the chance for you and your children to meet Dr Jane Goodall herself along with a host of other prizes.

See <http://www.rootsnshoots.org.uk/awards/> for details about the awards and information on how to upload your 'mission update' story and win!

### **Keep up to date with Jane Goodall's Roots & Shoots in the UK**

You can find us on Facebook at [fb.com/RootsnShoots.org.uk](https://www.facebook.com/RootsnShoots.org.uk) or why not sign up for our weekly email newsletter full of inspiring stories from our Roots & Shoots members in the UK at [rootsnshoots.org.uk/sign-me-up/](http://rootsnshoots.org.uk/sign-me-up/)