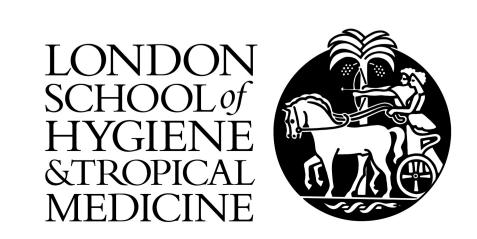
# Dangerous diseases and the mosquito menace





School pack for travel health safety





#### Stay safe when going abroad!

Learn the key facts to help you stay safe from vector borne diseases.





### Vectors

are small organisms
that can transmit
dangerous diseases

With just 1 bite they can transmit:

- Malaria

Dengue



Zika virus



Yellow fever

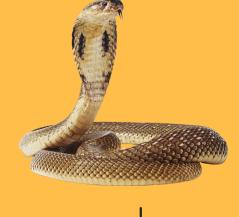
- 1. Circle the insects or animals you think are vectors of disease.
  - 2. Which do you think causes the most deaths in a year?



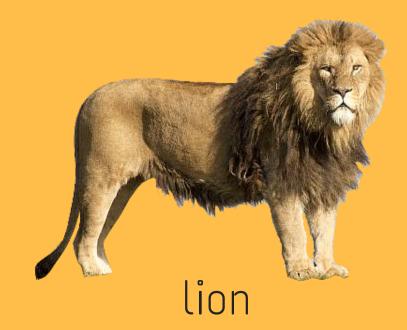








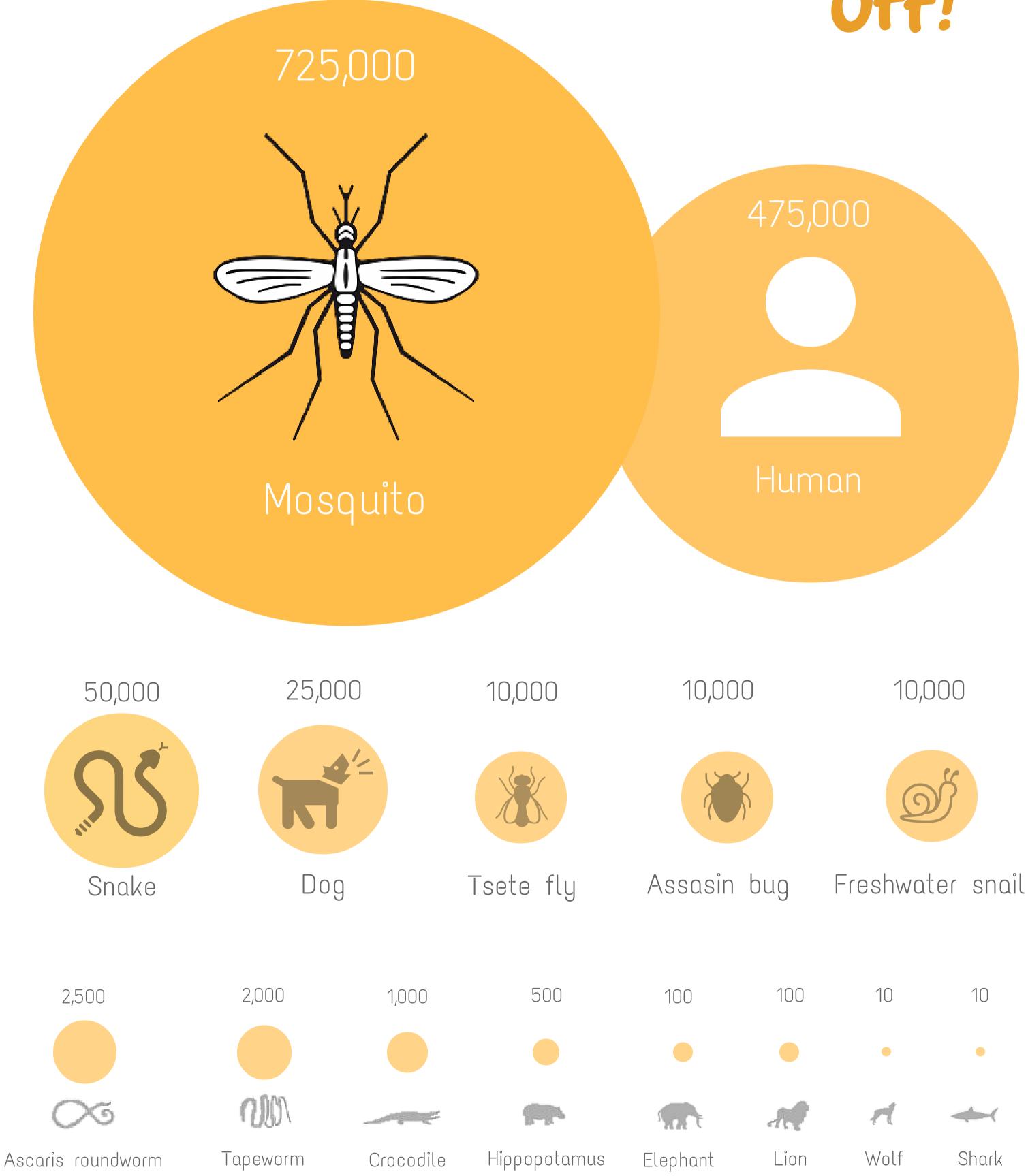
snake



#### The world's deadliest animals

(Number of people killed by animals per year)





#### The mosquito's life cycle

Just as humans go from egg to adult, mosquitoes have different stages in their lives:



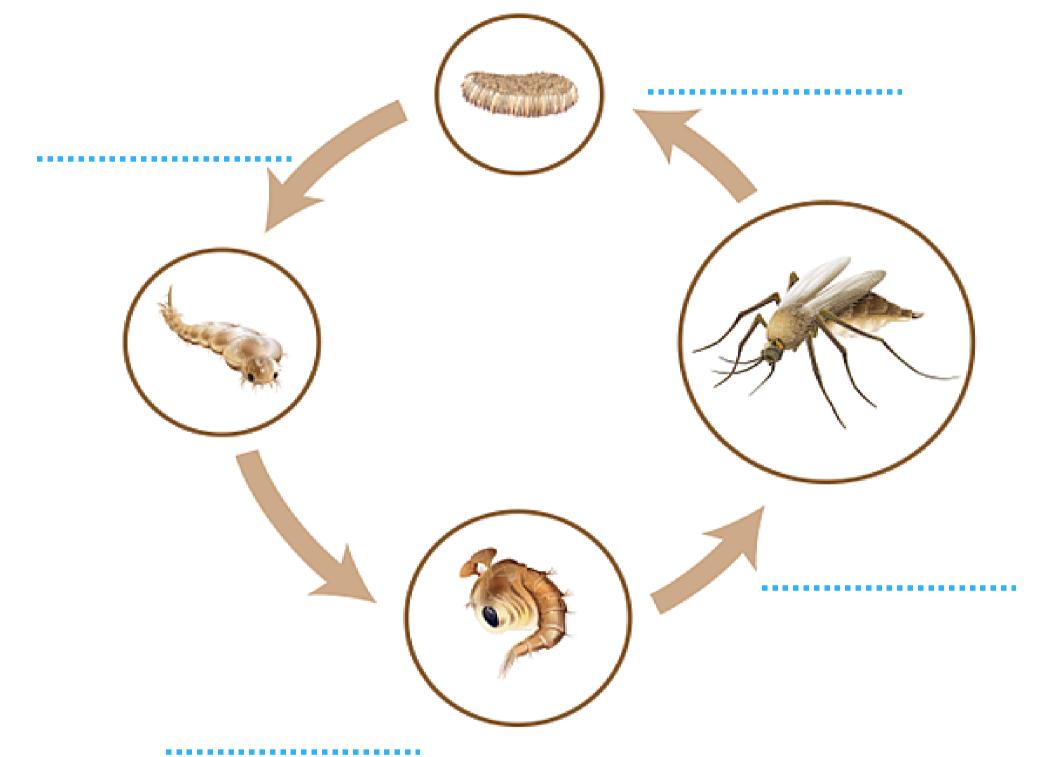
1. Egg

2. Larva

3. Pupa

4. Adult

Label the diagram using the names of these stages



Egg: Mosquitoes lay their eggs in water. Eggs can hatch into larvae within 48 hours.

Larva: The larva lives in the water and comes to the surface to breathe. It shes its skin 4 times and grows bigger each time.

Pupa: Pupa do not feed. This is the time when mosquitoes change into adults.

Adult: Only female adult mosquitoes eat blood. Male adult mosquitoes eat nectar and plant juices.

Fill in the	gaps with:	weeks	skin	blood	water

Egg: After drinking , a female adult lays 40 - 400 tiny eggs on water.

Larva: Within 1 week, an egg hatches into a larva. It breathes through holes on the side of its body or on its tail and feeds on material that floats on the

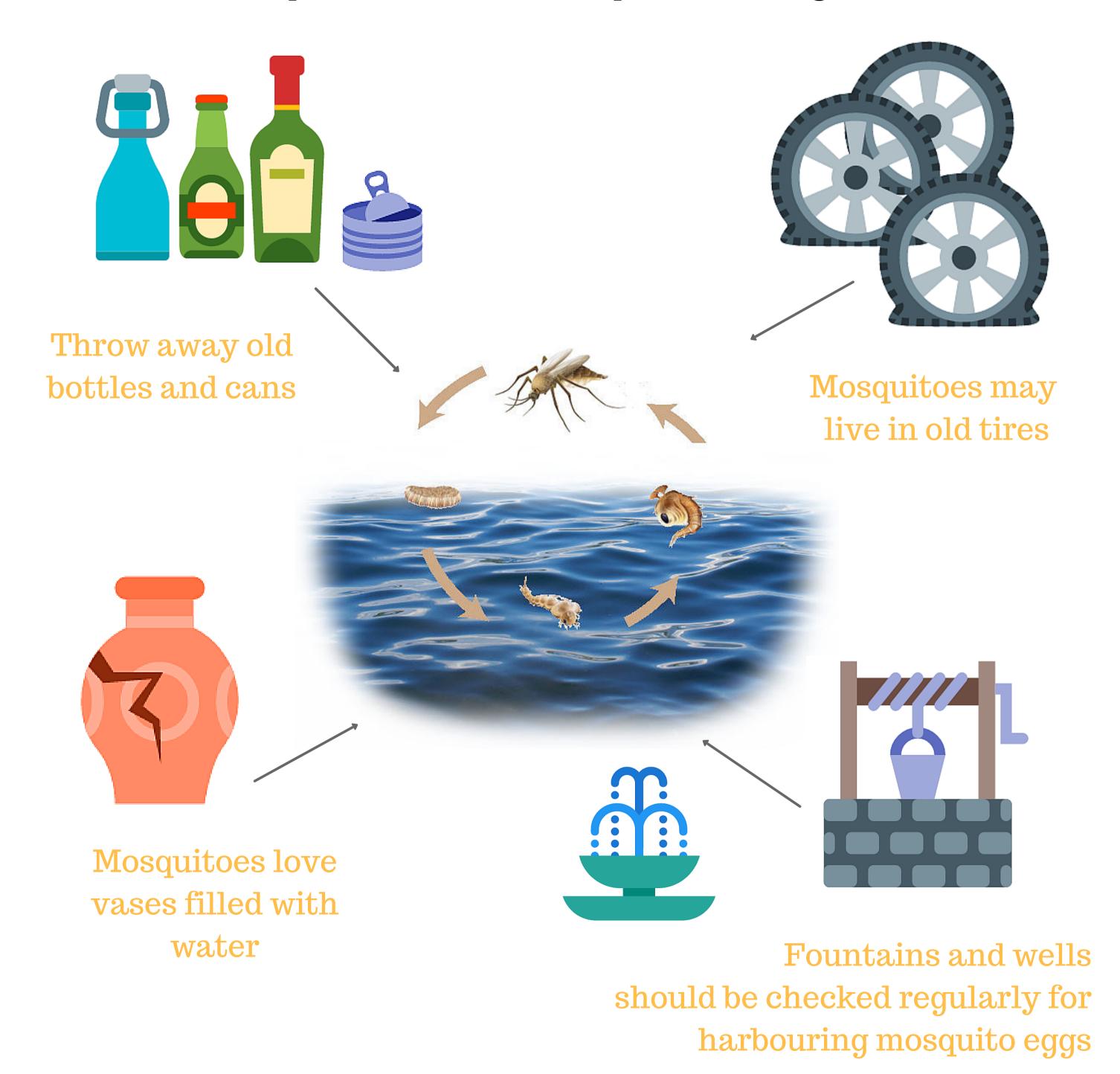
Pupa: As it grows, a larva sheds its four times and becomes a pupa. A pupa breathes through tubes on its back but it doesn't eat anything.

Adult: After a few days, the pupa's skin splits and an adult mosquito emerges. It only lives for a few . .

#### Where do mosquitoes grow?

As you learnt on Page 3, mosquitoes require water to survive. Water is essential for mosquitoes as that is where they breed and grow.

Here are some places where mosquitoes can grow:

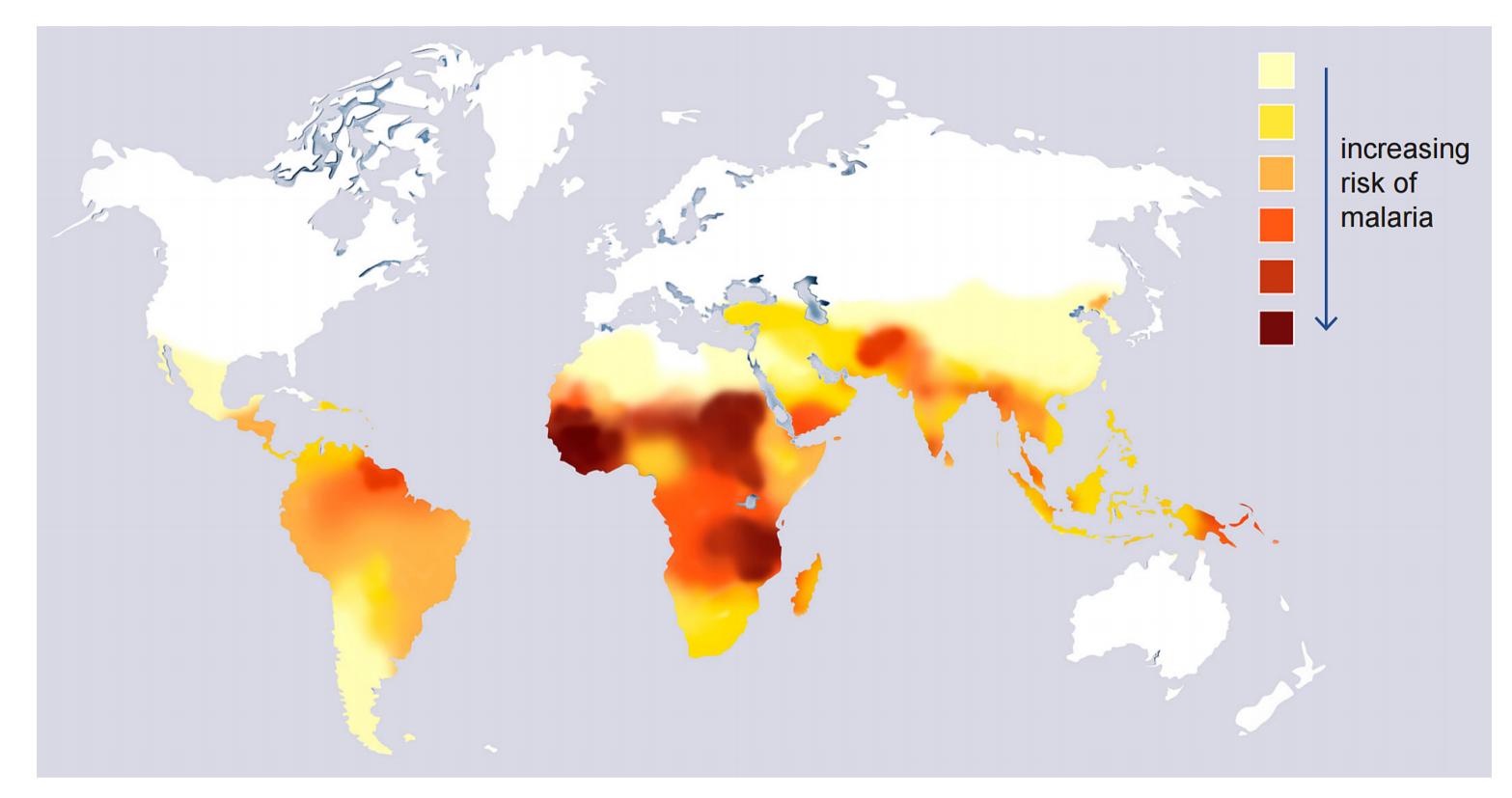


#### Mosquitoes carry malaria

Malaria is a preventable disease, yet it still affects almost half the world's population and causes more than 430,000 deaths each year.



Look at this map of the world showing malaria areas and risks.



#### Questions

- 1. Mark a cross on the map any countries that you or your family has visited.
- 2. Draw a line on the map to show the position of the equator.
- 3. What do countries that are malaria-free have in common?

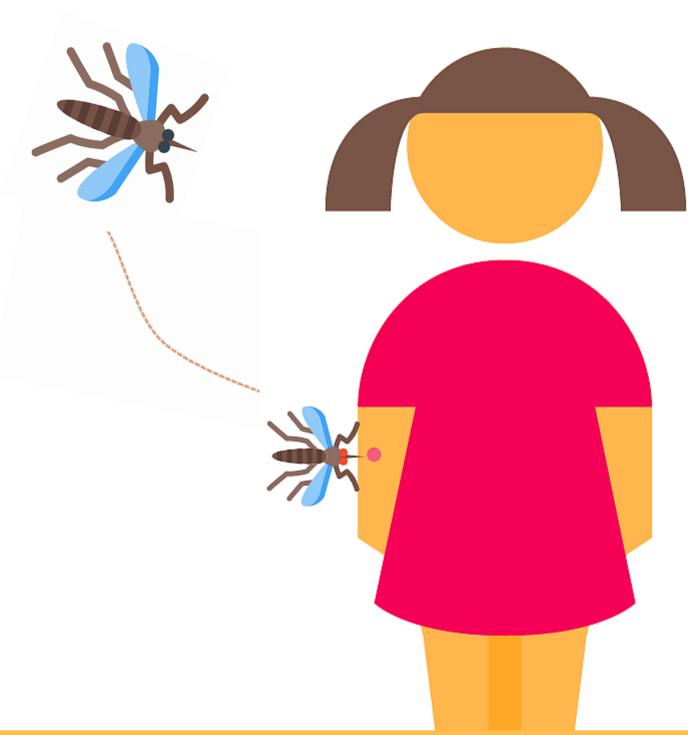
4. Name 3 countries where there is a high risk of malaria.

## How do mosquitoes spread malaria?



Malaria is caused by a parasite called **Plasmodium** 

When female **Anopheles** mosquitoes bite humans for blood they require to nurture their eggs, they might pick up the Plasmodium parasite from people who are **infected** with the parasite.



When the parasites are inside the mosquito's body, they reproduce

and develop.

The mosquitoes which spread malaria are called **Anopheles mosquitoes**.

#### Question time

1. What is the name of the parasite which causes Malaria?

2. What is the name of the mosquito which spreads malaria?

3. What happens after the parasite is inside the mosquito's body?

# How can I stay safe from mosquitoes?



There are many different ways you can protect yourself from mosquitoes.



#### Insect repellents and sprays

Spraying or applying repellent lotions directly onto the skin is an important way to avoid itchy mosquito bites and illnesses!

Insect repellents containing DEET and PMD are effective against biting mosquitoes.

#### Cover up your skin

By covering your skin with loose and long clothing, it gives mosquitoes less of a chance to access your skin!



### MOSQUITO MYTH BUSTER

Not all mosquitoes bite humans! Only female mosquitoes feed on blood. Males feed on nectar.

Eating foods such as marmite, garlic and taking vitamin B tablets *do not* protect you against mosquitoes!