

Bat diversity

Lesson

2

What we will learn this week:

- about bat species and families
- where bats live
- big and small bat facts
- what bats eat



Hello my human friends!

Great to see you back again, in Lesson 2 you are going to learn even more about bats!! I bet you think all bats are pretty much the same, no way José!

If you look more closely, you'll find we come in quite a variety of different shapes and sizes, colours and even hairstyles! We hang around in all sorts of different places and we each have special but different "jobs" to do to help the environment.

If you see this symbol:



you may need help from an adult.

Don't forget, the pencil symbol means it's your turn to do an activity!



We've included all the **new words** in the word list at the end!

You will need :

- ✓ a **pencil**
- ✓ a **ruler or tape measure**
- ✓ **some scales**



Here's the story

We bats are one of the most **diverse** group of animals found in the animal kingdom, (diverse means we aren't all the same).

Here are some of the ways we are different from each other, even though we are all bats; some of us are tiny, others REALLY BIG and every size in between.

1 Diet

Different types of bat eat different types of food, I eat insects but I know other bats from around the world who feed on:



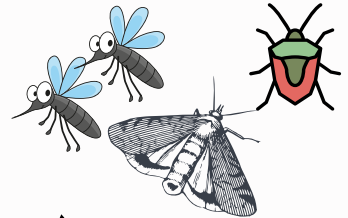
fruit



frogs



fish



pollen & nectar



blood

yummy insects

DID YOU KNOW?

Baby bats are the same as baby humans both start life drinking milk as our first food. We (bats and humans) then get teeth and start eating more solid food and that's when our diets get less alike. That's also when bat diets change.



Akashinga over here, is also known as Eidolon the Great! Akashinga is a straw-coloured fruit bat and he eats ... fruit (his name is a bit of a giveaway), flowers and pollen! Personally, I think insects are yummy, imagine having to eat fruit!

2 Where do bats live?

It's the things that make us different that make us so successful, by that I mean bats have managed to spread and live nearly all over the world because they have adapted to living in different areas and eating different things.

DID YOU KNOW?

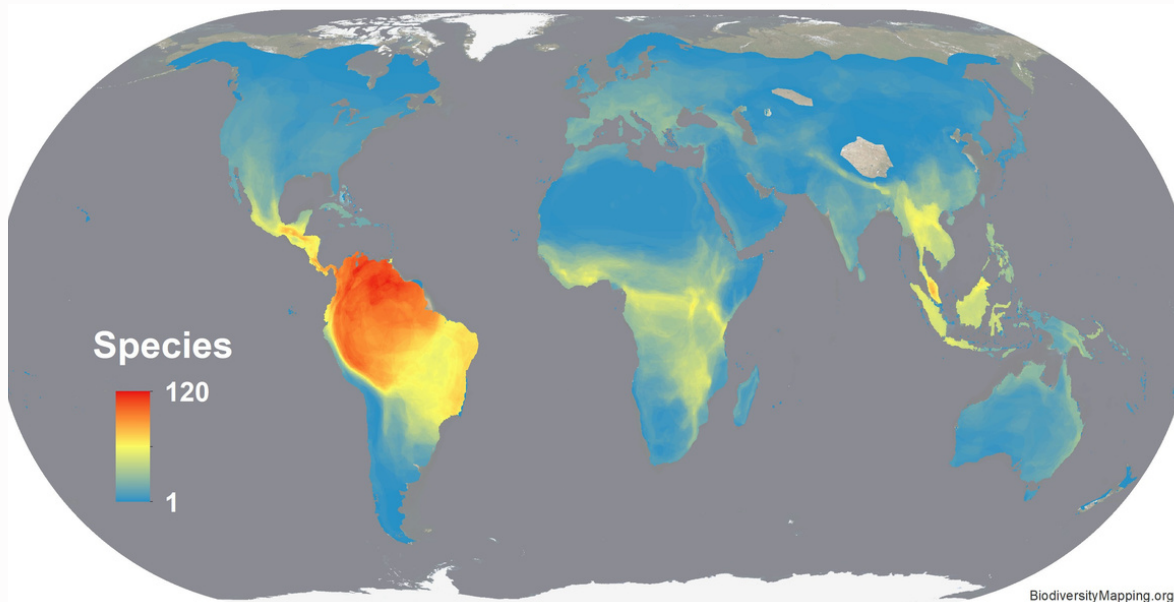
Bats are found on nearly every continent - there are bats in Africa, Asia, Europe, North and South America, Australasia and even in the Arctic (at the North pole!). A species called the Northern bat has been found very far north, beyond the Arctic Circle!

In fact, there is only one continent where bats have not been found – and that's in Antarctica (the south pole). So as far as we know there are no bats hanging out with the penguins and seals down there!



You can see on the map below where bats live and which places have the most different types of bat. Red means lots of bat species blue means few and white means none.

Where are you on the map?
How do you rate it's "batty-ness"?



We shelter in all sorts of different places like caves, trees, buildings, some bats even hide away in termite mounds. I guess that's like people, some live in houses, others in tents or caves and some in igloos.

3 Species and families

I know you humans love sorting things into groups, children sometimes sort their toys into different boxes, librarians put different types of books on different shelves, and scientists sort living things into groups such as plant groups, animal groups, animals with fur, animals with scales, etc. Scientists then give these groups scientific names such as order, family, genus, species. Some of these groups are very large and some are very small.

Sorting groups of plants and animals into separate groups is called **classification**.
names, names, names!

A **species** is the most detailed form of classification of living things. In living things, a species is a group of similar individuals that are able to reproduce. So humans are one species!

When you write a species name you should write it either in *italics* or underline the words, why? That's just the way scientists do things.

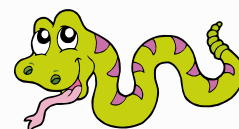
You know me as Spike, that's my "individual" name the same way you might be called "Nelson" or "Tiwonge". My friend here is called Akashinga (the brave one).

Hi guys, I'm Akashinga (or Eidolon)!
All the other bats that are just like me (i.e. the same type or species) have a common name, people call us "straw-coloured fruit bats".

We also have a scientific name "Eidolon helvum". You pronounce it Ay-da-lon hel-vum.
Humans all have the scientific name Homo sapiens, which roughly translates as "man wise" or "wise mankind".



Having a common name AND a scientific name might seem too much but it's really useful to have a scientific name. It helps to be really exact about the animal, plant or type of bat you are talking about.



I'll give you an example, there are lots of different types of bat in different countries that all have long ears. People look at them and think "oh your ears are so long I'll call you "the long-eared bat", it's the perfect name for you. But the long-eared bat in Africa is a different bat from the long-eared bat in Australia, which is different from the long-eared bat in America. They all do have very long ears BUT they aren't all the same type (or species) of bat.

This is where scientific names are really useful. Only the exact same types of bat have the exact same scientific name. So using scientific names can be a bit of a mouthful but it's really important when you need to know EXACTLY what type of bat you mean.

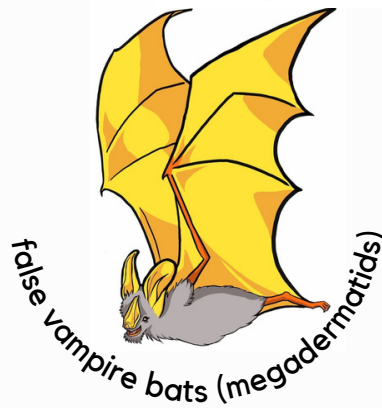
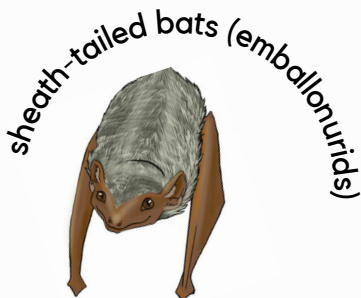
DID YOU KNOW?

bats, bats, bats!

There are over **1,420 species of bats in the world?** That is an incredible number, right? We make up an impressive 25% of all mammal species worldwide. That means that for every four mammals on Earth, one is a bat!

Of the 1,420 species, 250 are found in Africa and in southern Africa there are over 120 species, each one a little bit different.

Where species share some similarities with other species, they have been grouped into a slightly bigger group called a family. There are 21 bat families globally, and 11 bat families found in southern Africa, these are:





Activity 1:

Can you find all the bat families in the word search below?

Bat families

L	O	N	G	F	I	N	G	E	R	E	D	E	C
D	E	C	A	F	T	I	L	S	M	O	V	A	I
I	E	O	D	R	H	E	I	N	T	L	S	H	S
I	A	R	E	E	R	C	P	L	P	I	O	T	T
E	C	G	S	E	A	S	H	S	I	G	T	O	U
F	E	I	O	T	E	D	D	I	H	A	H	G	G
R	D	L	N	A	I	T	N	M	E	H	F	N	O
U	E	D	F	I	H	O	R	S	E	S	H	O	E
I	S	F	A	L	S	E	V	A	M	P	I	R	E
T	E	E	E	E	H	A	E	T	N	A	R	D	P
T	E	P	L	D	F	N	G	E	T	N	E	T	S
P	L	A	I	N	F	A	C	E	D	O	E	E	N
E	I	S	I	I	E	T	T	R	I	D	E	N	T
D	E	L	I	A	T	H	T	A	E	H	S	E	A

HORSESHOE
FREETAILED
FRUIT
SHEATHTAILED

PLAINFACED
FALSEVAMPIRE
LEAFNOSED
CISTUGO

TRIDENT
LONGFINGERED
SLITFACED

So next, let's talk about size! I told you bats come in all different shapes and sizes, we are amazing.

Bats can be very small and light, or they can be large and heavy, as well as everything in between. The biggest bat species are fruit bats such as the golden-crowned flying fox (*Acerodon jubatus*), which weighs around 1.5kg and has a wingspan of nearly 2 metres!

The Kalong or Javanese flying fox (*Pteropus vampyrus*), which has a similarly impressive wingspan. Pteropus is pronounced like "terror pus" but it's not a scary cat and vampyrus is a very silly name because it's actually a fruit bat. The Victorians who gave the bat its name were a bit obsessed with vampires!

DID YOU KNOW?

The bones found in a bat's wings are exactly the same as the ones in a human hand!



Activity 2:



Find a ruler or tape measure, and measure out a distance of 2 metres. You might want to do this on the floor, or against a wall. Now position yourself in the middle of this space and stretch your arms out as far as they will go to get a sense of how big a fruit bat's wings can be.

You could even get someone to take a photo of you in position.

Imagine if your hands were actually bat wings, how big would they be!



Activity 3:



If you have access to a set of scales in your house, find some small items and weigh them – can you find items in your house that weigh the same as the Kitti's hog-nosed bat? You could try some coins, pencils, paperclips, a peanut, etc.

How many items can you find?

DID YOU KNOW?

The smallest bat in the world is the Kitti's hog-nosed bat (*Craseonycteris thonglongyai*), also called the bumblebat because of its small size. This bat weighs just 2 grams!

5 Bat faces

I'm always surprised by the way human faces all look so similar. Bat faces can look very, very different - from ears to noses.

For example:

Fruit bats (like Eidolon) have large eyes and a long pointed face (a bit like a dog's or a fox's face)

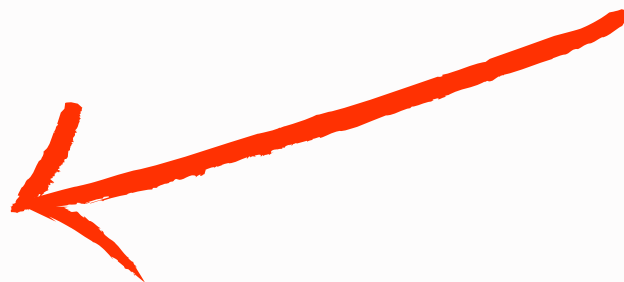


Mwezi is a Dent's horseshoe bat, she has small eyes (compared to Eidolon) and little round ears that never seem to stay still. Her most memorable feature is her horseshoe shaped nose leaf (that she hums through!)

Logan's mum (Bongi) is a Botswanan long-eared bat. She is almost like the Bugs bunny of the bat world. Her ears are INCREDIBLY long (and lovely).



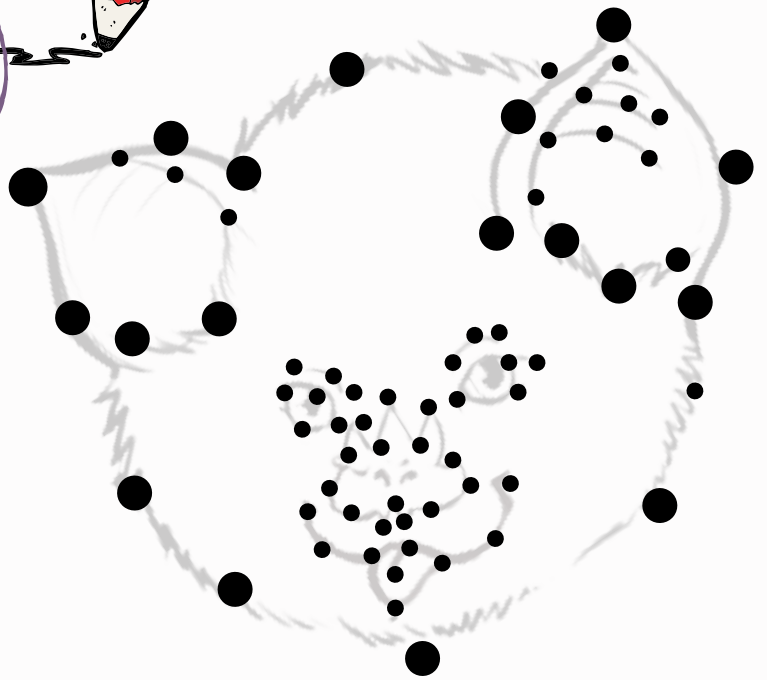
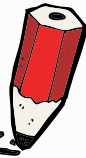
I don't want to sound vain, but I really have to mention that some bats, like me not only have beautiful faces but also have amazing hairstyles. I love my mohawk mane!!



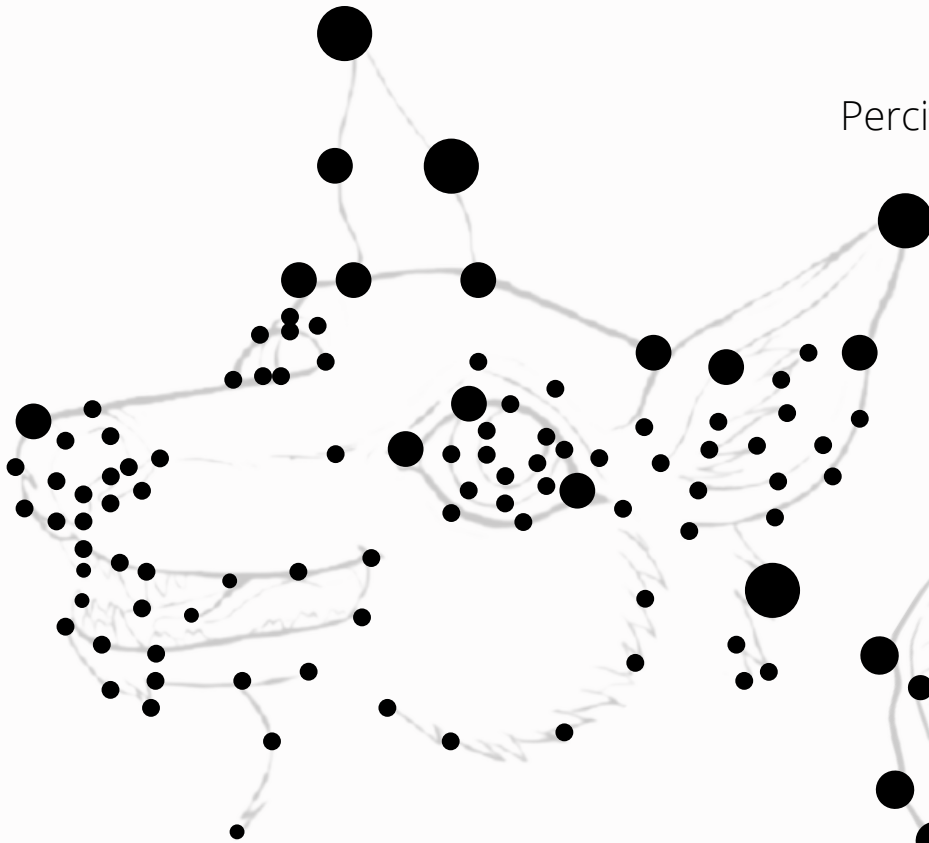
Activity 4:

Join the dots below to reveal some very different looking bat species found in southern Africa.

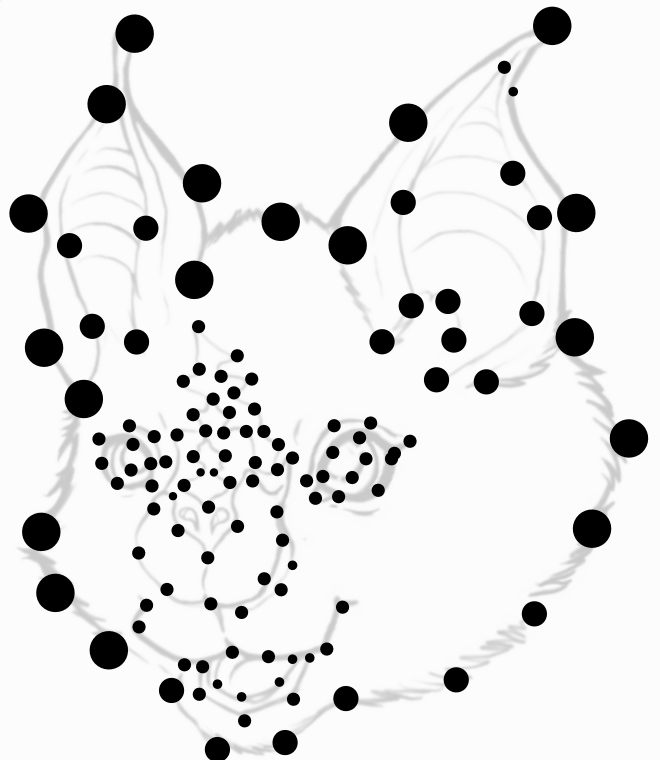
Over to you!



Percival's short-eared trident bat



Straw-coloured fruit bat



Geoffroy's horseshoe bat

Glossary

(words we have learned today!)

Classification - sorting groups of plants and animals into separate groups

Diverse - that we are all different

Family - a group of one or more species that share similar characteristics

Insectivorous - a plant or animal that eats insects.

Species - a particular type of plant or animal.



I hope you learned a lot today!
See you next week, to learn all about
where bats live!

Don't forget; the solutions to the
activities will be available on the Bats
without Borders Facebook page!