



Classifying Organisms

Teach Well



New Topic

What we are
learning today

Learning Objective

Students will use scientific names to identify species.

Vocabulary

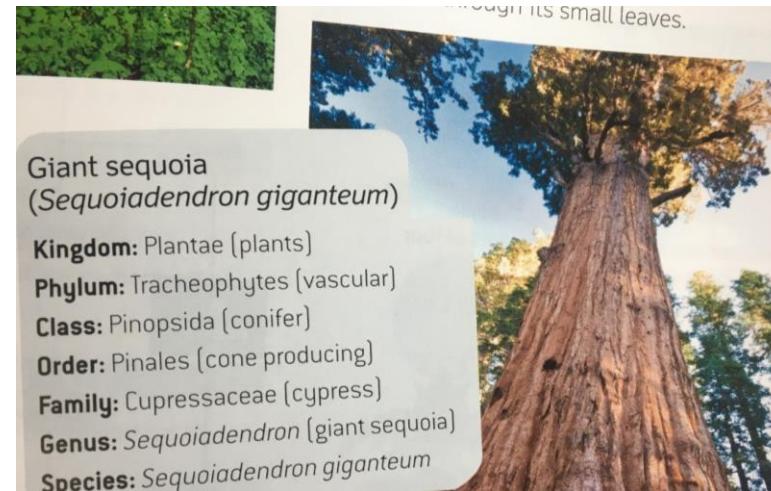
Identify = pick out

CFU

What are we learning today (own words)?

Think - Pair - Share

Write the scientific names for these organisms:



Success Criteria



Whiteboards:

Write down your full name.

CFU

Be ready to share your answers.

Pair-Share:

1. *In what kinds of situations do we usually use our full names?*
2. *Why?*





Scientific Naming

A scientific name is a name that describes the appearance of an organism or where it was first discovered.

A binomial system is used by scientists to name specific organisms.

A binomial name has **two parts**.

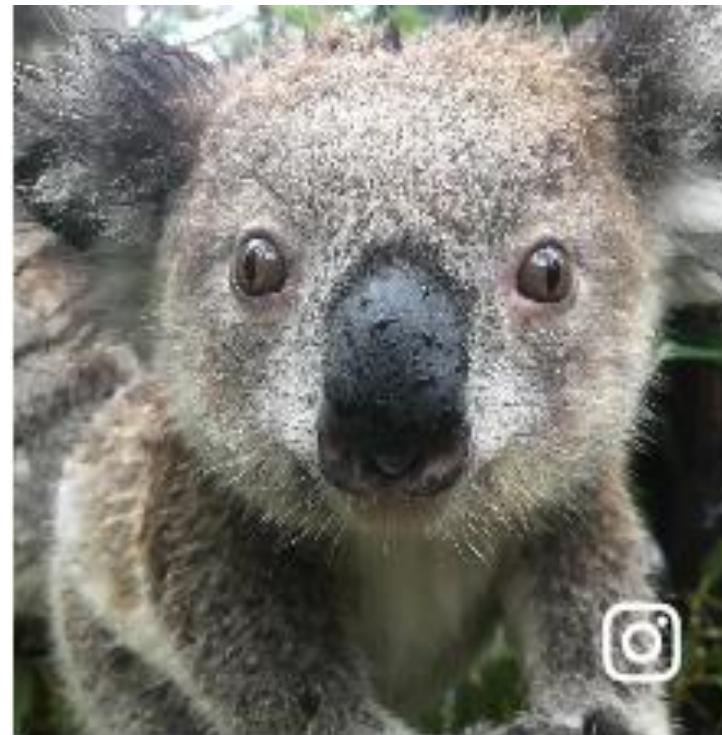
Genus species

Example of a scientific name:

Phascolarctos cinereus

Common name:

Koala



CFU 1

How do scientists name organisms?

CFU 2

Why is the common name "koala" NOT an example of a scientific name?

Vocabulary

Genus and **species** are names of categories in scientific naming.



Scientific Naming

A scientific name also tells us the relationship between organisms.

Genus

is the category that groups organisms with common features.

Macropus: Kangaroos
Wallaroos

Wallabies
Tree-kangaroos

Species

is **the most** specific category and distinguishes the organism from others that are part of the same genus.
Species names are unique.



Macropus giganteus

Macropus rufus

Macropus fuliginosus



Scientific Naming

A scientific name has two parts: *Genus and species* and tells us the relationship between organisms.

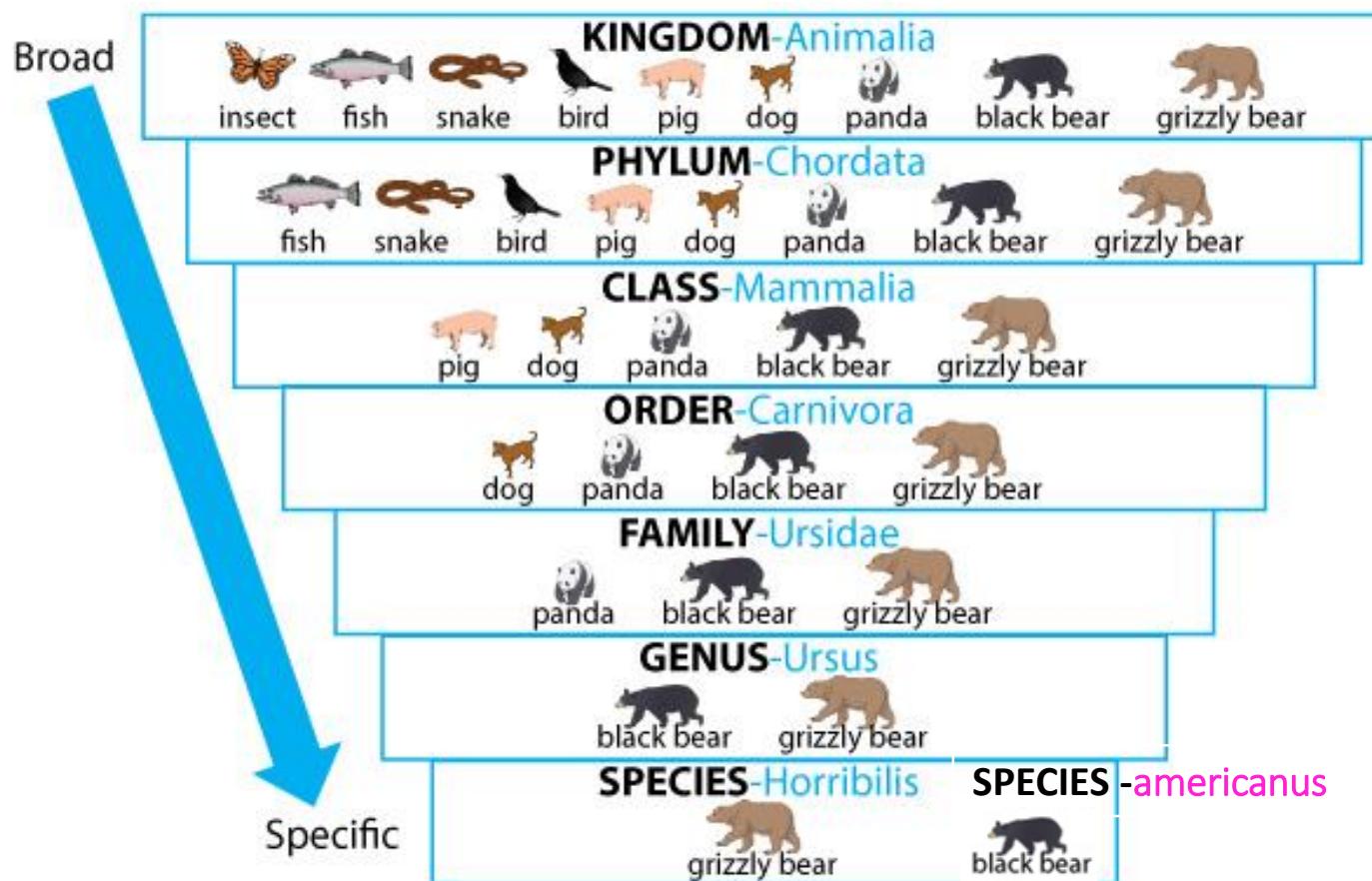
Eg.

Grizzly bear

Genus: *Ursus*

Species: *horribilis*

Scientific name: =
Ursus horribilis



CFU

Which is the correct scientific name for a **black bear**?

- a) *Ursus horribilis*
- b) *Ursus americanus*
- c) *americanus*

The Steps:

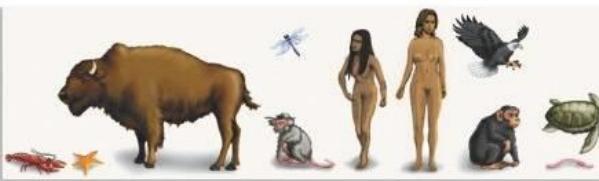
1. Identify the Genus and species
2. Write the Genus name first with a capital letter
3. Write the species name second with a lower case letter
4. Underline both words



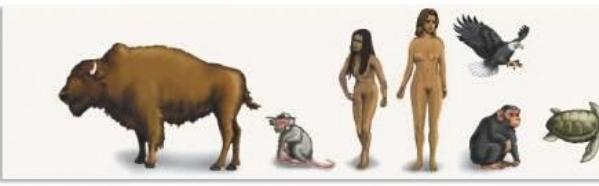
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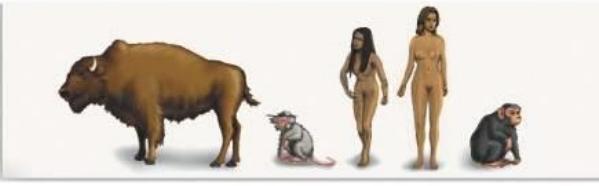
KINGDOM
(*Animalia*)



PHYLUM
(*Chordata*)



CLASS
(*Mammalia*)



ORDER
(*Primates*)



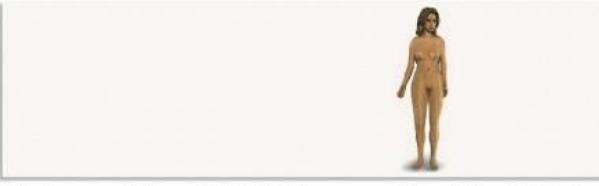
FAMILY
(*Hominidae*)



GENUS
(*Homo*)



SPECIES
(*sapiens*)



CFU

Which is the correct scientific name for a human?

- a) *Homo*
- b) *Homo sapiens*
- c) Wise man

Be prepared to give a reason for your answer.

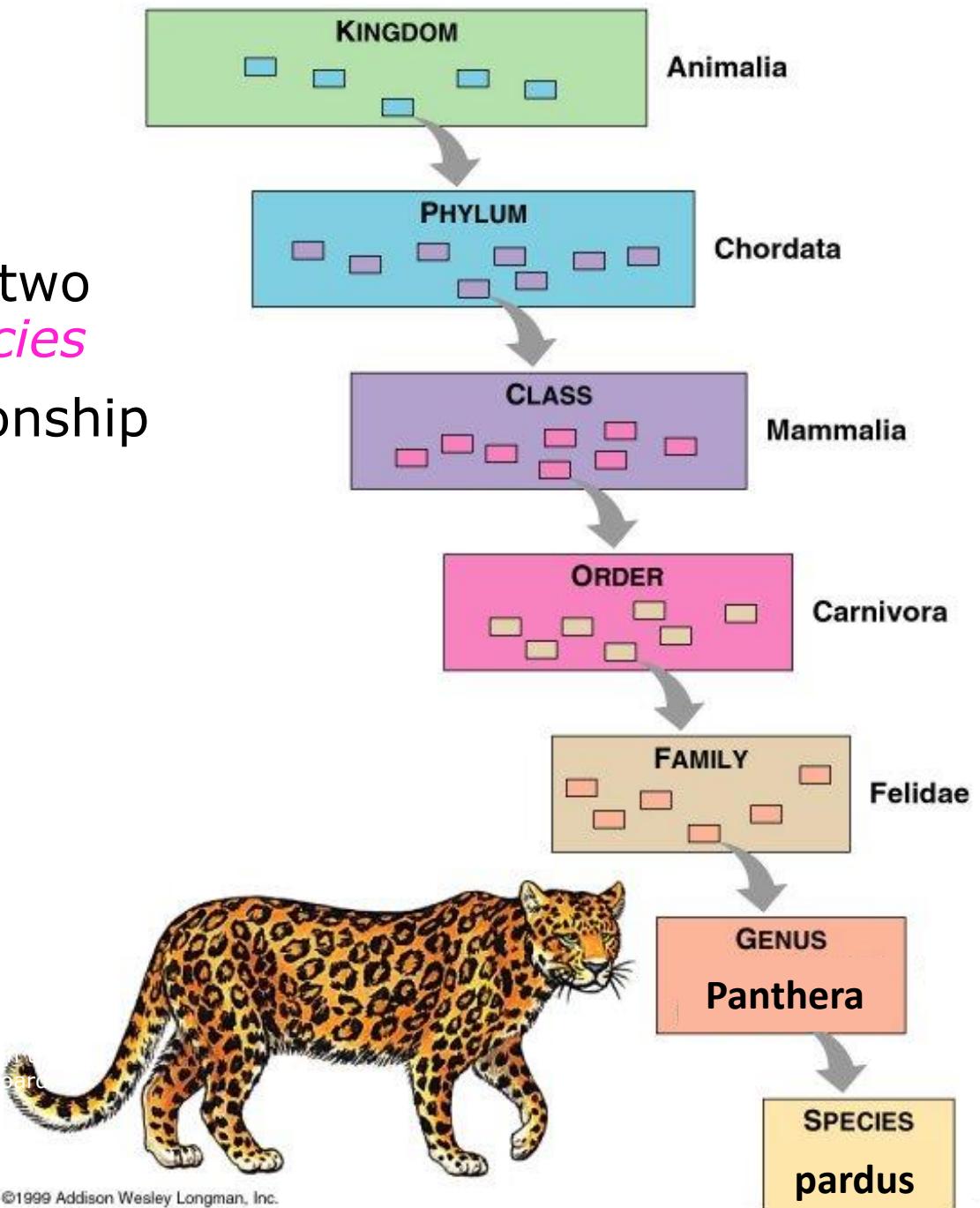
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Scientific Naming

A scientific name has two parts: *Genus* and *species* and tells us the relationship between organisms.



CFU 1

What is the name of the Genus the leopard is grouped in?

CFU 2

What is the scientific name of a leopard?

The Steps:

1. Identify the Genus and species
2. Write the Genus name first with a capital letter
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Fun fact

Panthera means leopard.
pardus means spotted.

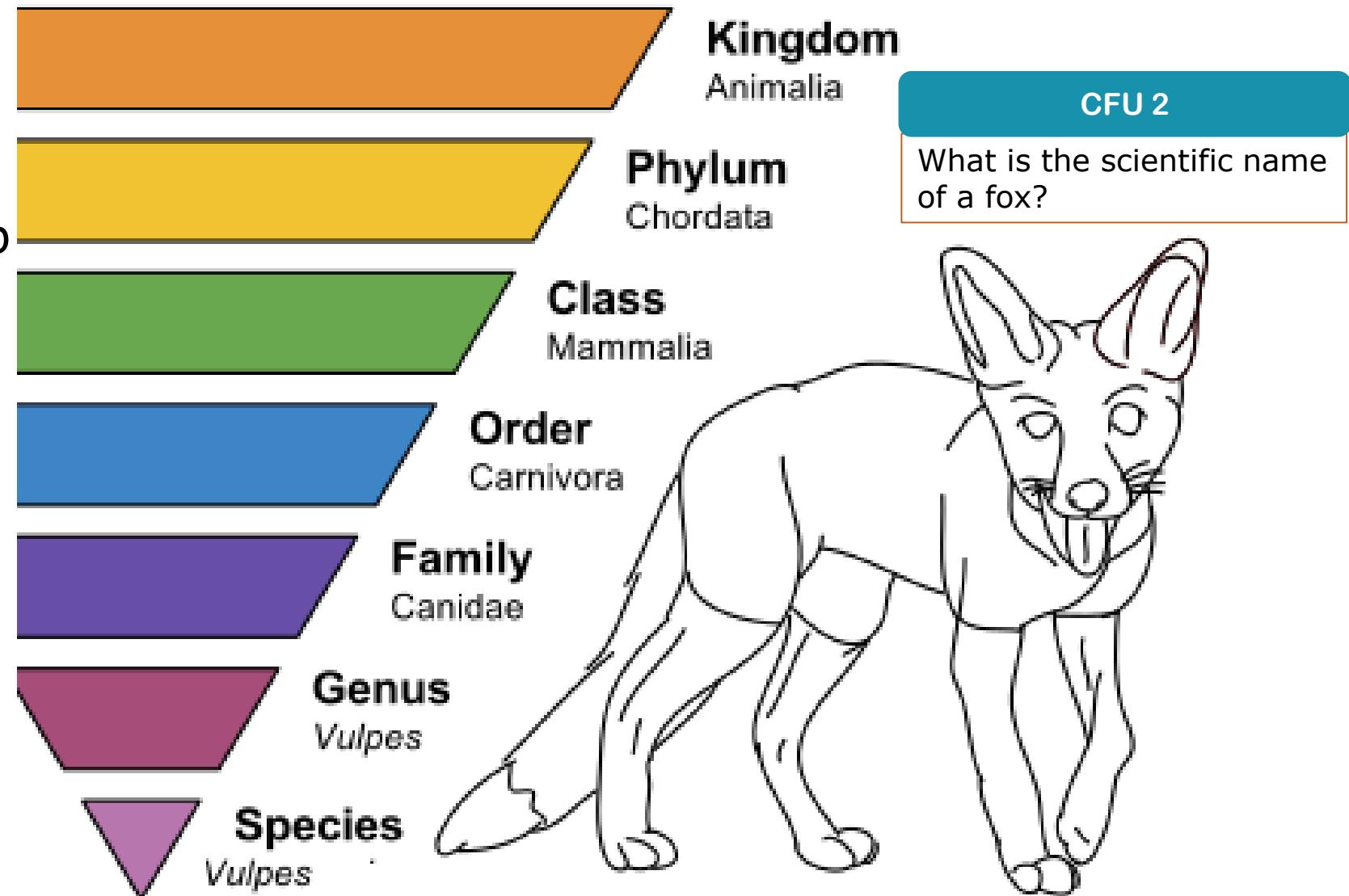


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Scientific Naming

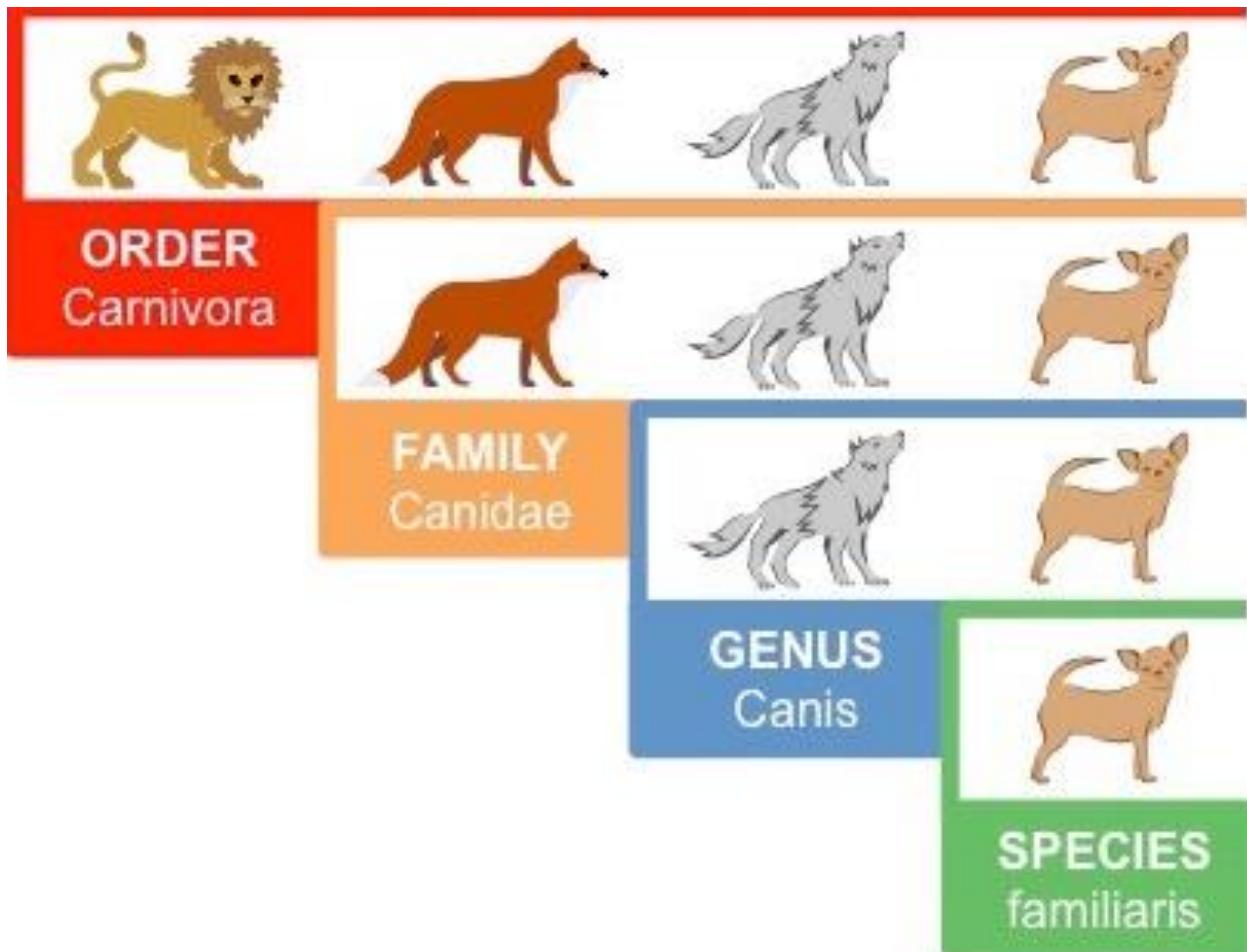
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CFU 1

What is the name of the Genus that dogs belong to?

The Steps:

1. Identify the Genus and species
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Fun fact

Familiaris is a Latin word for 'household'.



Scientific Naming

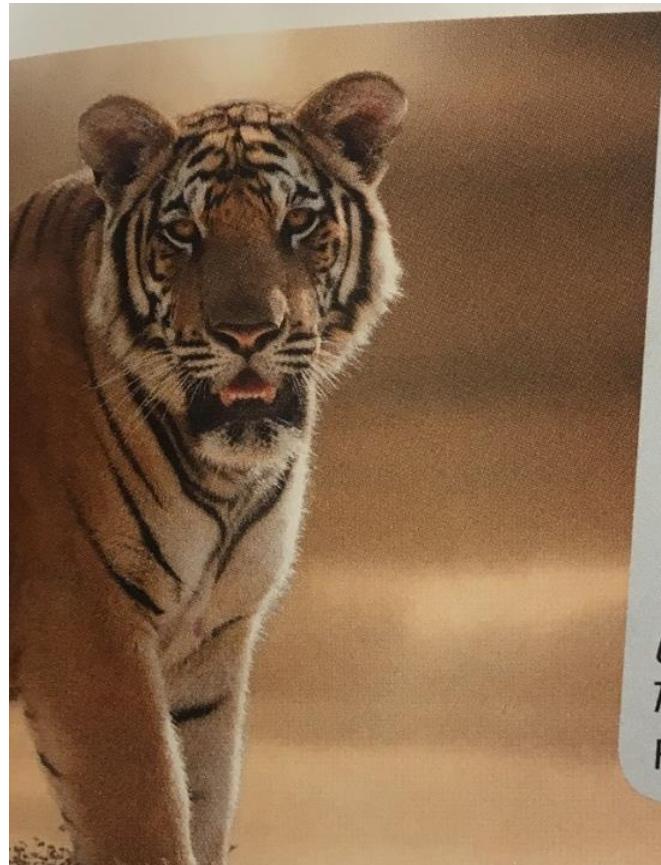
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CFU 1

What is the scientific name for this animal?

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Tiger

Common name: Tiger

Class: Mammalia

Order: Carnivora

Family: Felidae

Genus: Panthera

Species: Tigris

Tigers and domestic cats belong to the same family (Felidae) and share many similar characteristics. The tiger (Panthera tigris) belongs to the genus Panthera, along with the lion, jaguar and leopard.



Scientific Naming

A scientific name has two parts: *Genus* and *species* and tells us the relationship between organisms.

CFU 1

What is the scientific name for a domestic (house) cat?

The Steps:

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CLASS: MAMMALIA

e.g. kangaroo, fox, tiger, jungle cat, domestic cat

ORDER: CARNIVORA

e.g. fox, tiger, jungle cat, domestic cat

FAMILY: FELIDAE

e.g. tiger, jungle cat, domestic cat

GENUS: FELIS

e.g. jungle cat, domestic cat

SPECIES: FELIS CATUS

e.g. domestic cat



Scientific Naming

A scientific name has two parts: **Genus** and **species** and tells us the relationship between organisms.

CFU 1

What is the scientific name for this frog?

The Steps:

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Red-eyed tree frog

Class: Amphibia

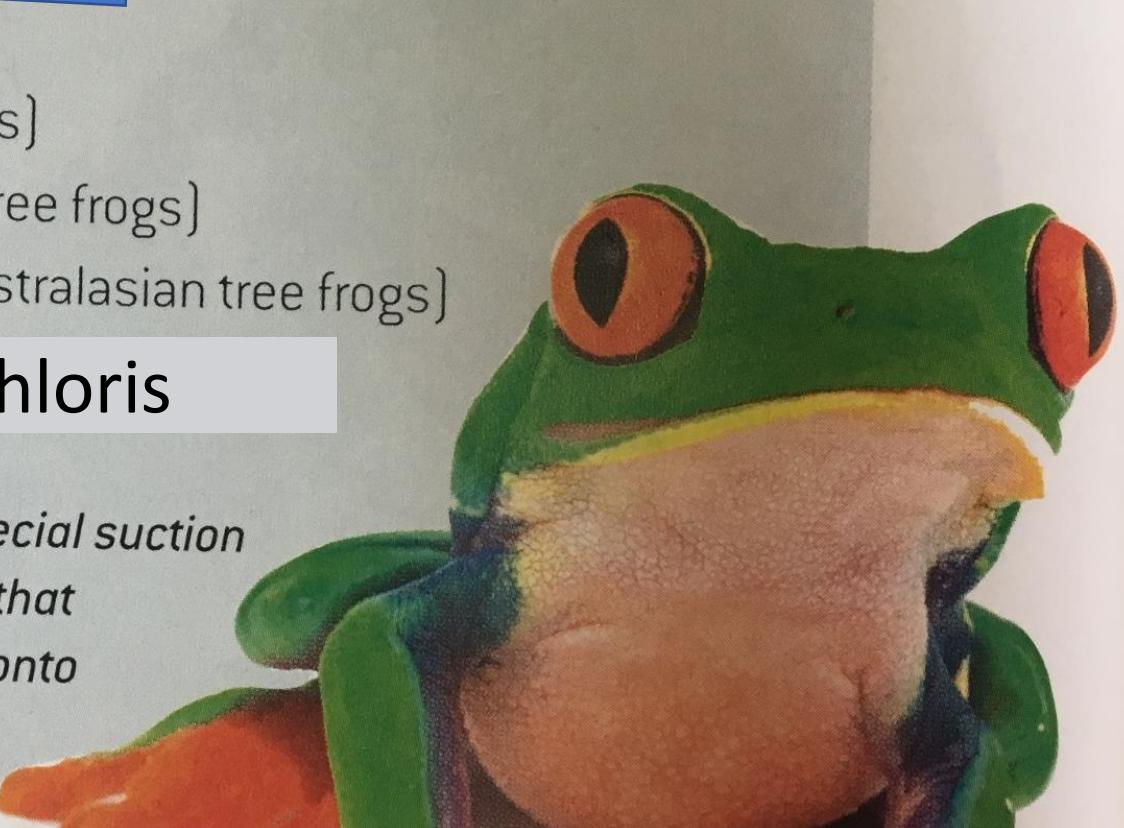
Order: Anura (frogs)

Family: Hylidae (tree frogs)

Genus: *Litoria* (Australasian tree frogs)

Species: *chloris*

Tree frogs have special suction pads on their toes that allow them to grip onto trees more easily.





Scientific Naming

A scientific name has two parts: *Genus* and *species* and tells us the relationship between organisms.

CFU 1

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Common bottlenose dolphin

Class: Mammalia

Order: Cetacea (large sea mammals)

Family: Delphinidae (ocean-living dolphins)

Genus: *Tursiops* (bottlenose dolphins)

Species:

bottlenos

truncatus

Common bottlenose dolphins live in groups called pods. A pod usually contains up to 25 dolphins, but the group size can vary from a pair of dolphins to over 100 and occasionally as many as 1000.





Scientific Naming

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Orange Clownfish

Class: Pisces

Order: Perciformes (bony, ray-finned fish)

Family: Pomacentridae (damselfish and clownfish)

Genus: *Amphiprion* (clownfish)

Species: *ocellaris* (orange clownfish)



Scientific Naming

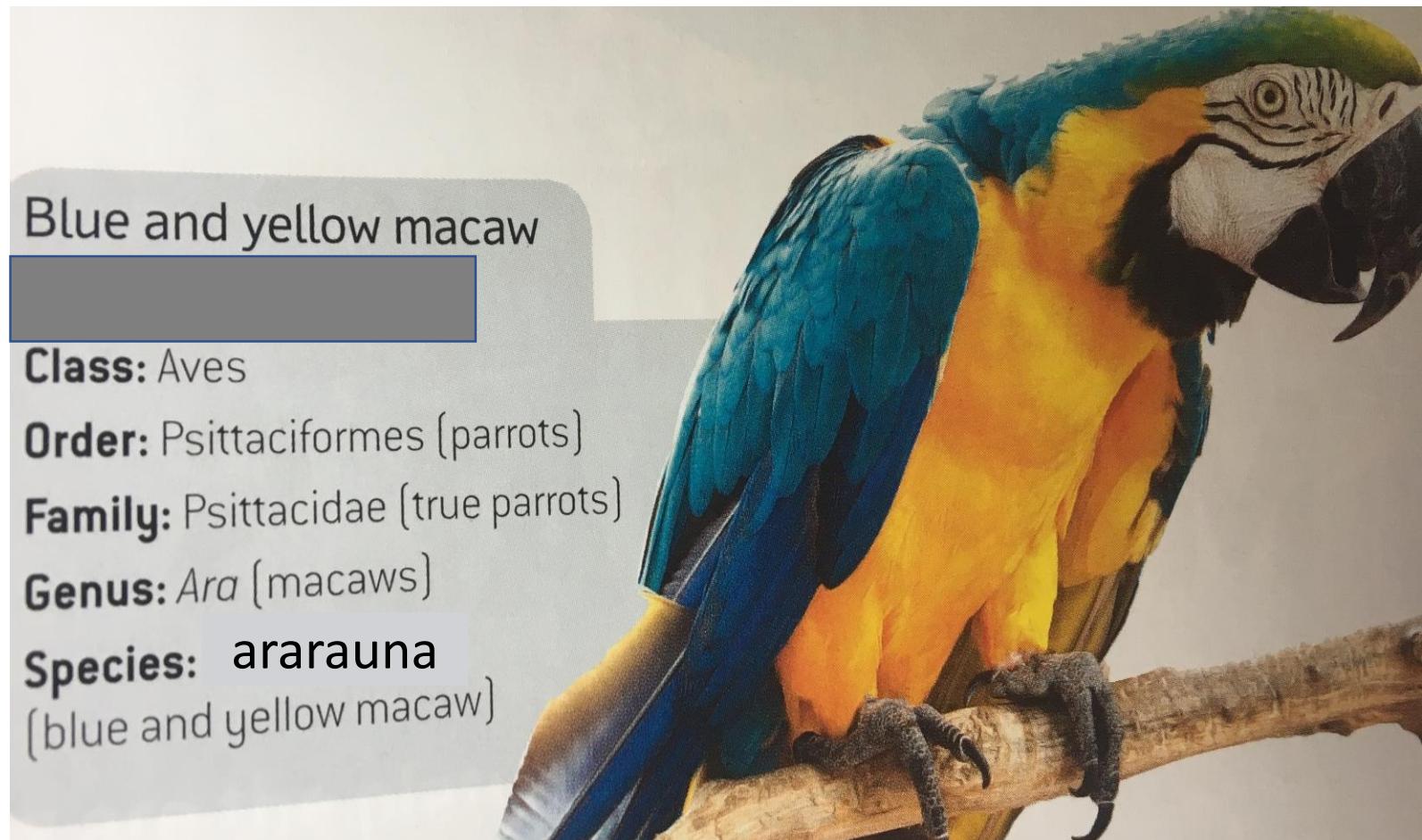
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Frill-necked lizard



Class: Reptilia

Order: Squamata (scaled reptiles)

Family: Agamidae (dragon lizards)

Genus: *Chlamydosaurus* (frill-necked lizards)

Species: Kingii (frill-necked lizard)

Frill-necked lizards fan out their frills to frighten attackers.



Scientific Naming

A scientific name has two parts: *Genus* and *species* and tells us the relationship between organisms.

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Venus flytrap

Kingdom: Plantae (plants)

Phylum: Anthophyta (flowering)

Class: Eudicotyledons (pollen)

Order: Caryophyllales (fleshy)

Family: Droseraceae (sticky sap)

Genus: *Dionaea* (snap trap)

Species: *muscipula*





Scientific Naming

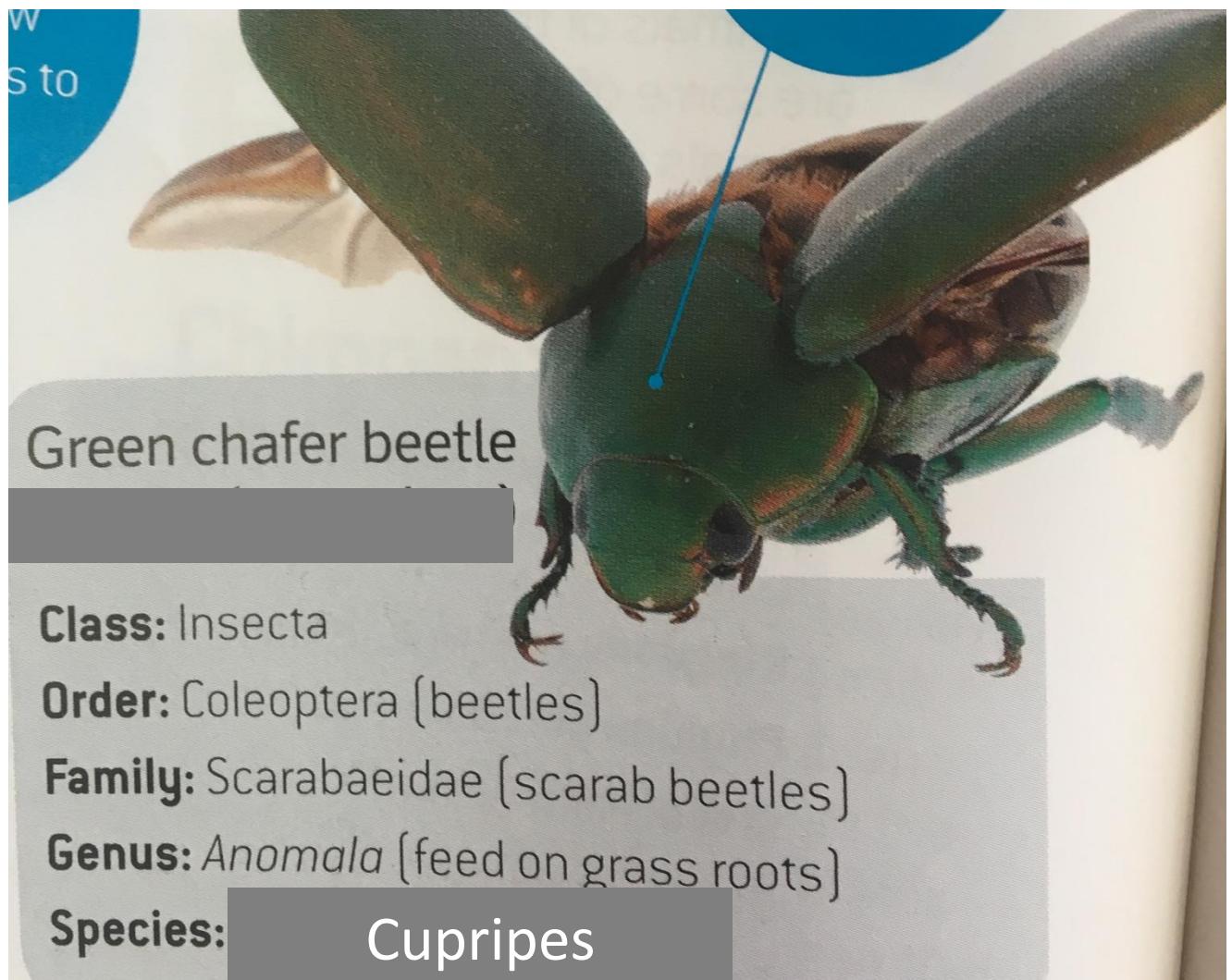
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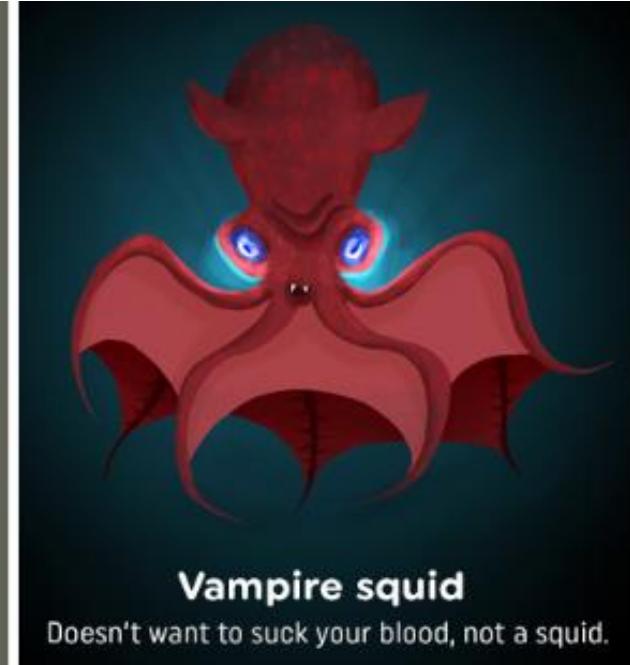
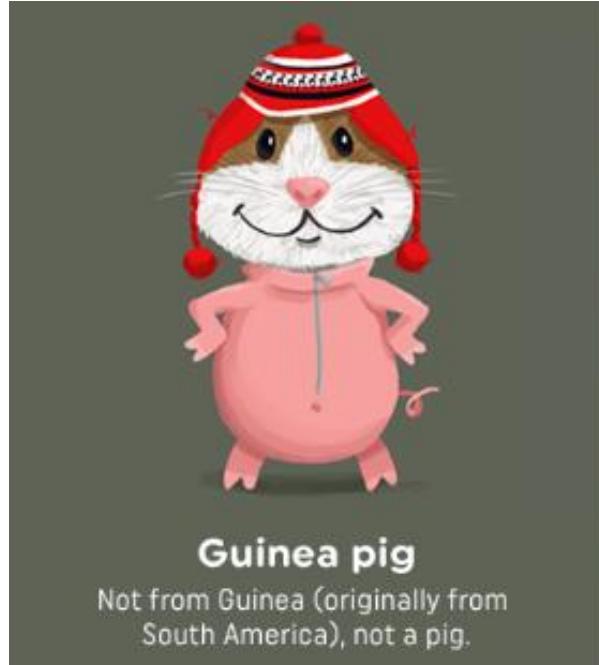


Why do we need to know about scientific naming?

Organisms are scientifically named so that it is easier to communicate.

If there is one common system, people all around the world will know exactly what animal or plant you refer to. It helps us to accurately describe organisms.

Knowing about scientific naming comes in handy in a wide range of activities and jobs, from biologists and zoologists, to gardeners and tour guides - pretty much anyone working with or interested in living things!



CFU

Can you think of a situation or place you have heard or seen a scientific name used?





Which of these species are more closely related?
How can you tell?

CFU

Be ready to explain your answer.



Macropus irma



Macropus robustus

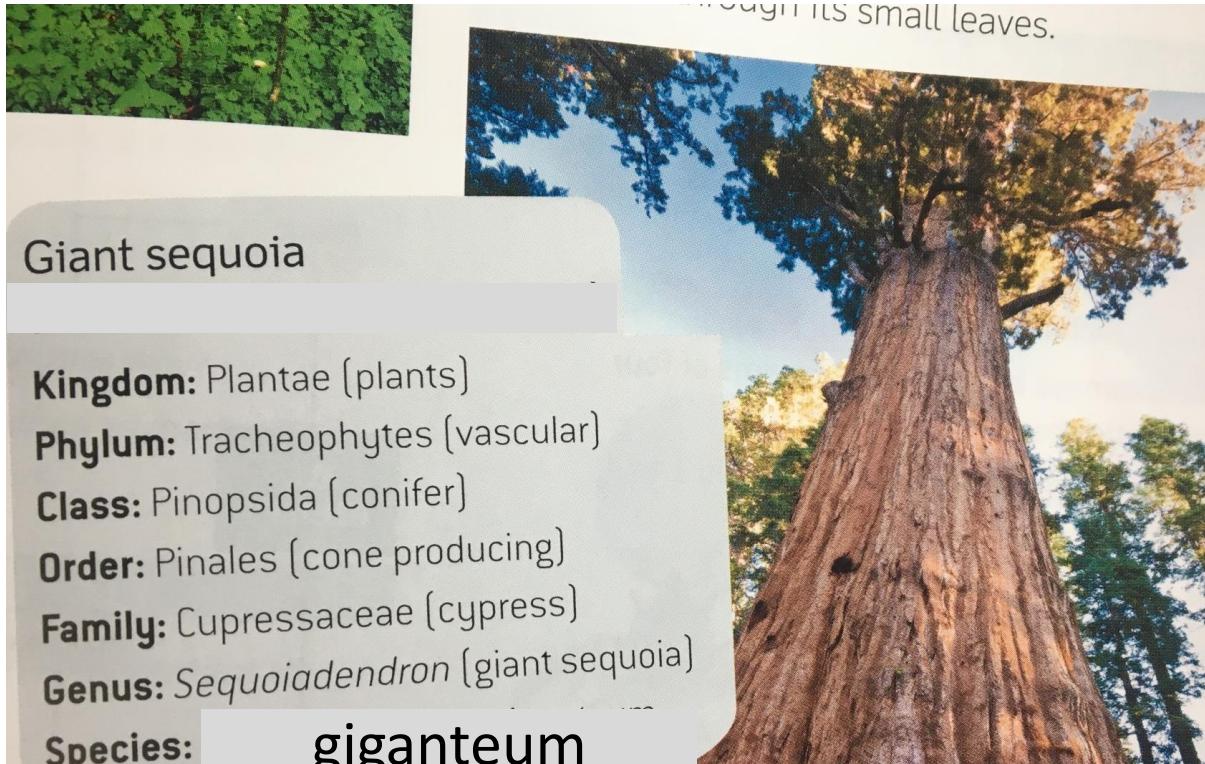


Vombatus ursinus



Write the scientific names for these organisms:

1.



Giant sequoia

Kingdom: Plantae (plants)
Phylum: Tracheophytes (vascular)
Class: Pinopsida (conifer)
Order: Pinales (cone producing)
Family: Cupressaceae (cypress)
Genus: *Sequoiadendron* (giant sequoia)
Species: **giganteum**

...suggets small leaves.

2.

Frill-necked lizard



Class: Reptilia

Order: Squamata (scaled reptiles)

Family: Agamidae (dragon lizards)

Genus: *Chlamydosaurus* (frill-necked lizards)

Species: **Kingii** (frill-necked lizard)

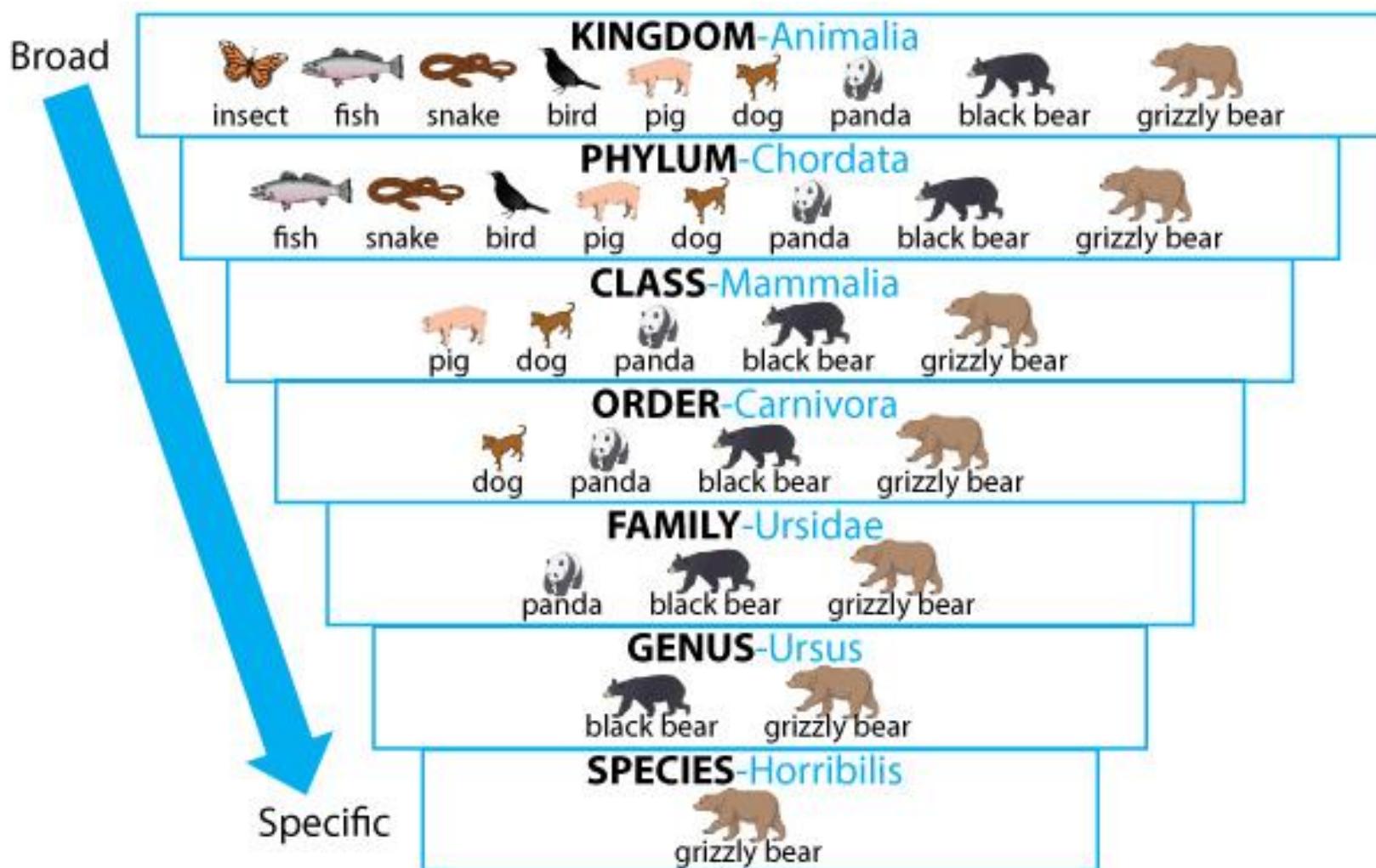
Frill-necked lizards fan out their frills to frighten attackers.

CFU

Be ready to explain your answer.



Students will use scientific names to identify species.





Your turn: *Scientific Names Hunt*

Research 5 different examples of animals and plants.

Find their common and scientific names and record your findings in the table below.

Common name	Scientific name
e.g. common starfish	<u>Asterias rubens</u>

The Steps:

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