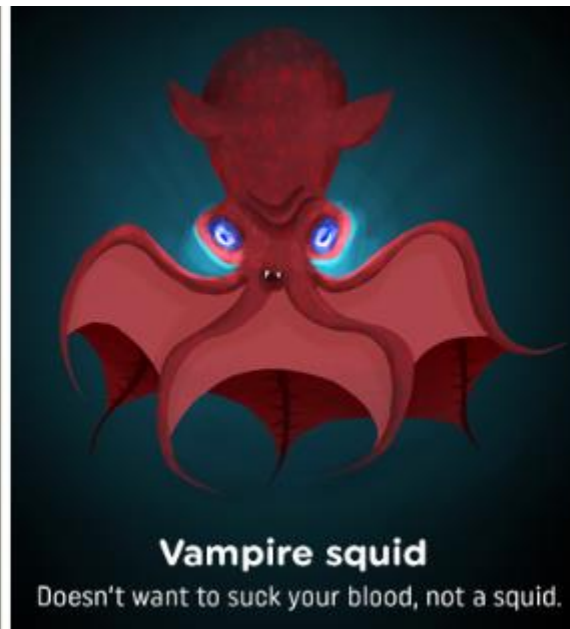
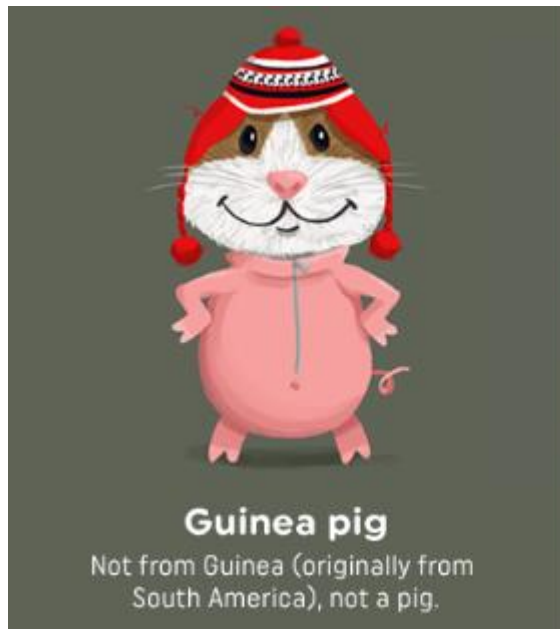


Scientific Naming



WA Curriculum: Classification helps organise the diverse group of organisms
([ACSSU111](#))

Elaboration: Using scientific conventions for naming species

Learning Objectives

1. Use scientific names to identify species

Activate Prior Knowledge

Write down your full name (first name and surname).

Vocabulary

Identify means to pick out

CFU 1

What are we going to learn?

Concept Development

A scientific name is a name that describes the appearance of 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

Concept Development

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

Skill Development

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

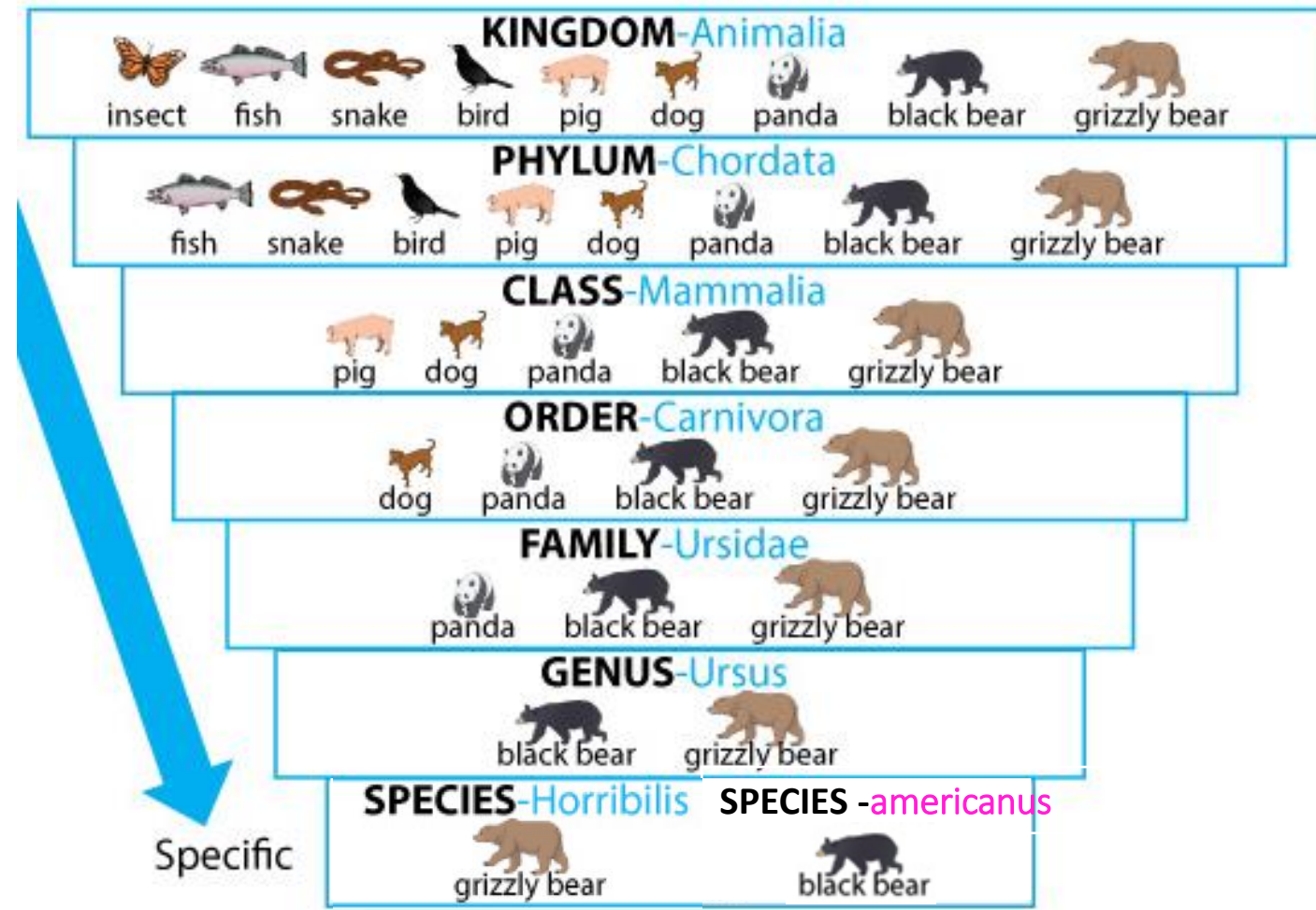
STEPS:

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

Black bear

Genus: *Ursus*

Species: *americanus*



CFU 1

Which is the correct scientific name for a black bear?

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

Skill Development/Guided Practice

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

STEPS:

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

CFU 1

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.

KINGDOM
(Animalia)



PHYLUM
(Chordata)



CLASS
(Mammalia)



ORDER
(Primates)



FAMILY
(Hominidae)



GENUS
(*Homo*)



SPECIES
(*sapiens*)

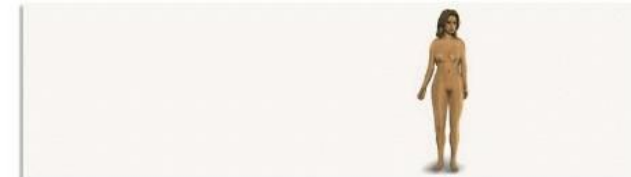


Figure 1-4 Biological Science, 2/e © 2005 Pearson Prentice Hall, Inc.

Skill Development/Guided Practice

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

STEPS:

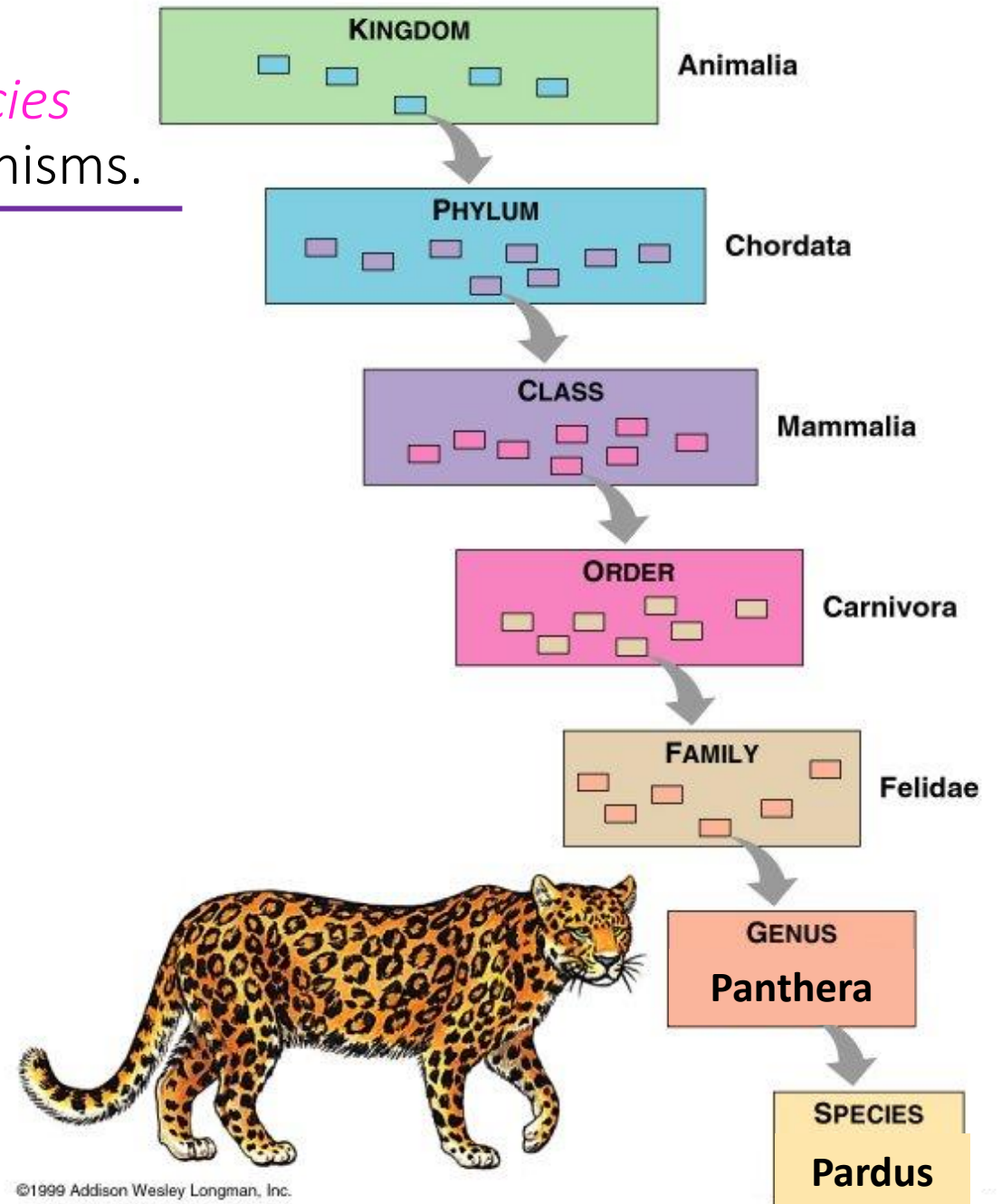
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4. Underline both words

CFU 1

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

Fun fact

Panthera means leopard
Pardus means spotted



Skill Development/Guided Practice

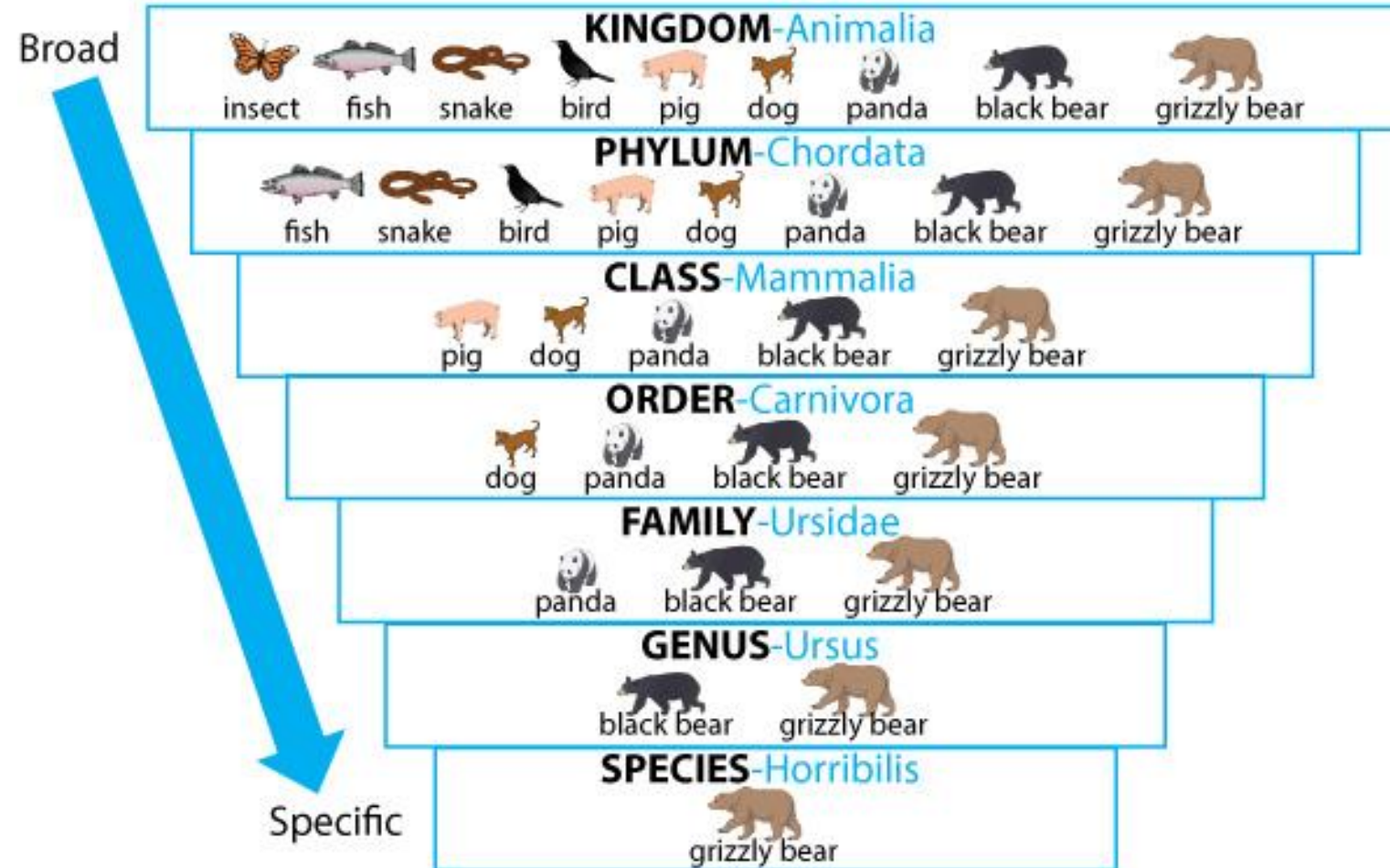
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STEPS:

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3. Write the specie name second with a lower case letter
4. Underline both words

CFU 1

Are grizzly bears also related to black bears?
How can you tell?



Skill Development/Guided Practice

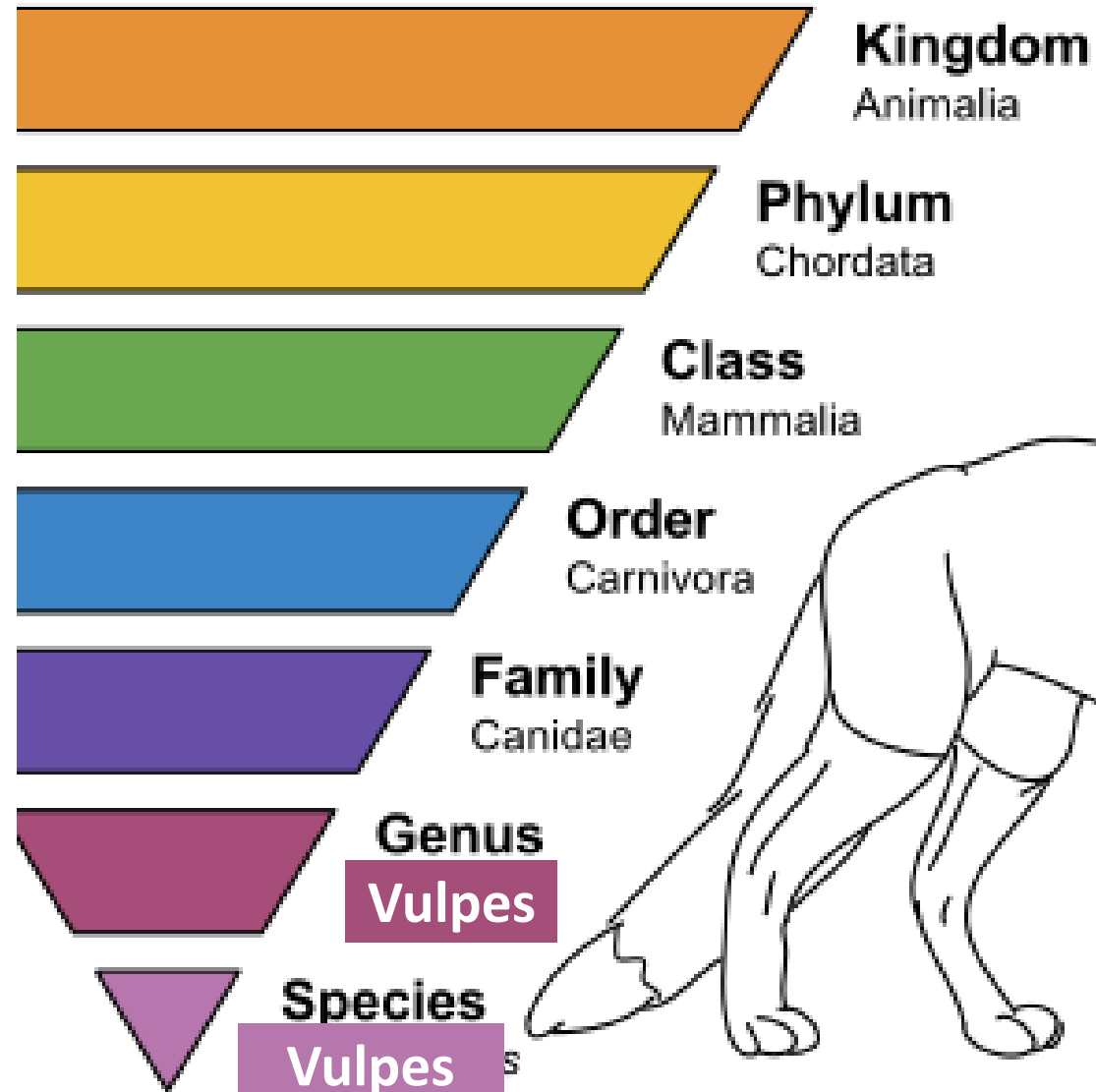
A scientific name has two parts: *Genus* and *species*
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STEPS:

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

CFU 1

What is the scientific name for a fox?



Skill Development/Guided Practice

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

STEPS:

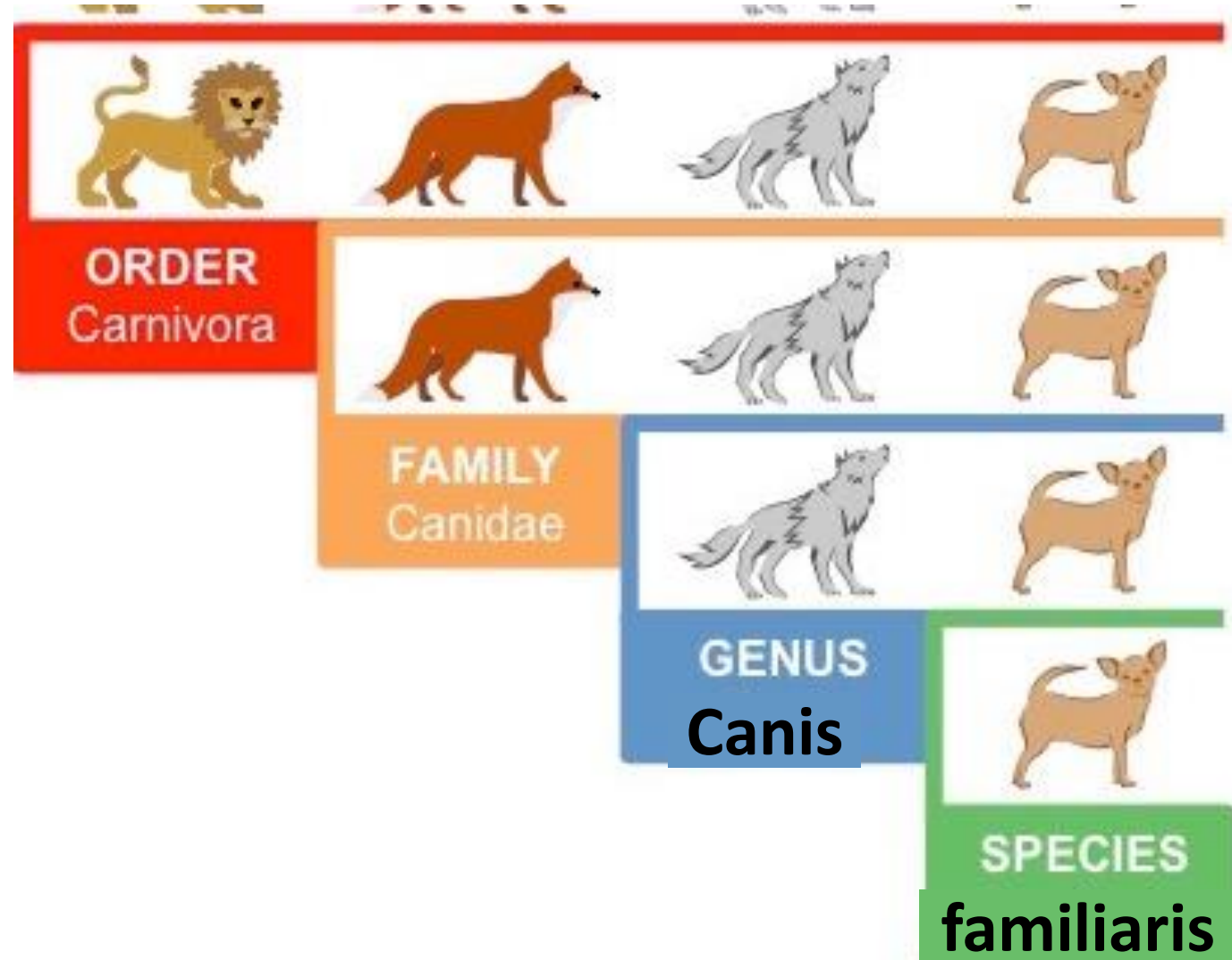
1. Identify the genus and species
2. Write the Genus name first with a capital letter
3. Write the specie name second with a lower case letter
4. Underline both words

CFU 1

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

Fun fact

Familiaris is a Latin word for 'household'.



Skill Development/Guided Practice

A scientific name has two parts: *Genus* and *species*
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4. Underline both words



Tiger (*Panthera tigris*)

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.*

Skill Development/Guided Practice

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

STEPS:

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2. Write the Genus name first with a capital letter
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4. Underline both words

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

Skill Development/Guided Practice

A scientific name has two parts: *Genus* and *species*
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Red-eyed tree frog

Class: Amphibia

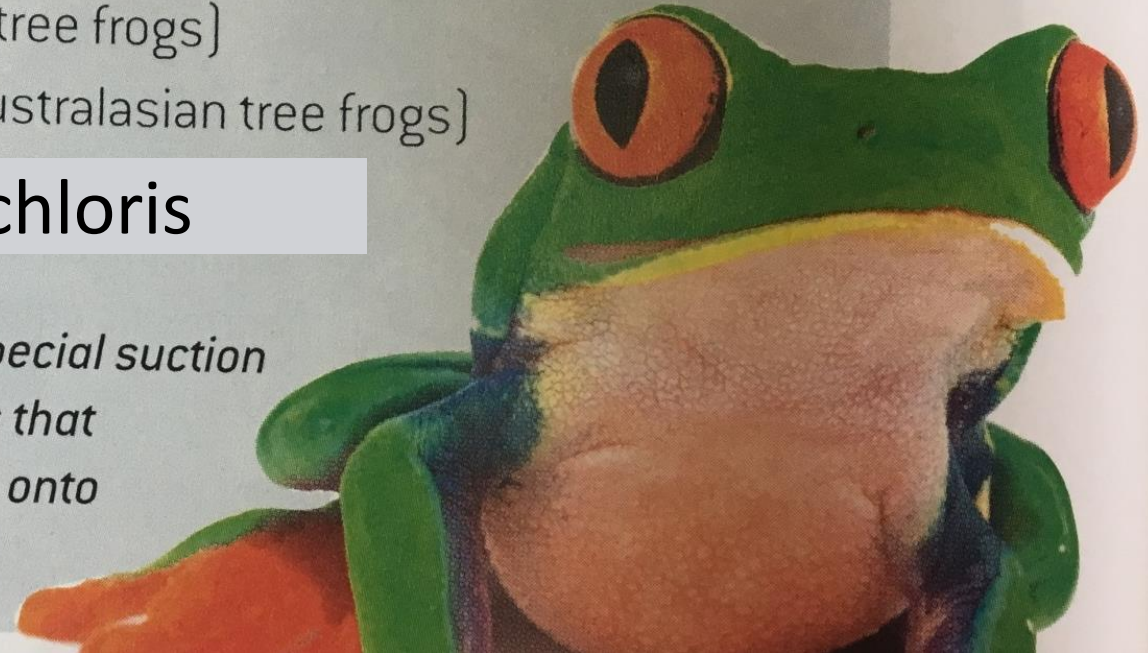
Order: Anura (frogs)

Family: Hylidae (tree frogs)

Genus: *Litoria* (Australasian tree frogs)

Species: *chloris*
tree frog)

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



temperature is not constant)

Skill Development/Guided Practice

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

STEPS:

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4. Underline both words

Common bottlenose dolphin

Class: Mammalia

Order: Cetacea (large sea mammals)

Family: Delphinidae (ocean-living dolphins)

Genus: *Tursiops* (bottlenose dolphins)

Species: *truncatus*
bottlenose

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.



Skill Development/Guided Practice

A scientific name has two parts: *Genus* and *species*
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Orange Clownfish

Class: Pisces

Order: Perciformes (bony, ray-finned fish)

Family: Pomacentridae (damselfish and clownfish)

Genus: ocellaris

Species: *Amphiprion ocellaris* (orange clownfish)

Skill Development/Guided Practice

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

STEPS:

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Blue and yellow macaw

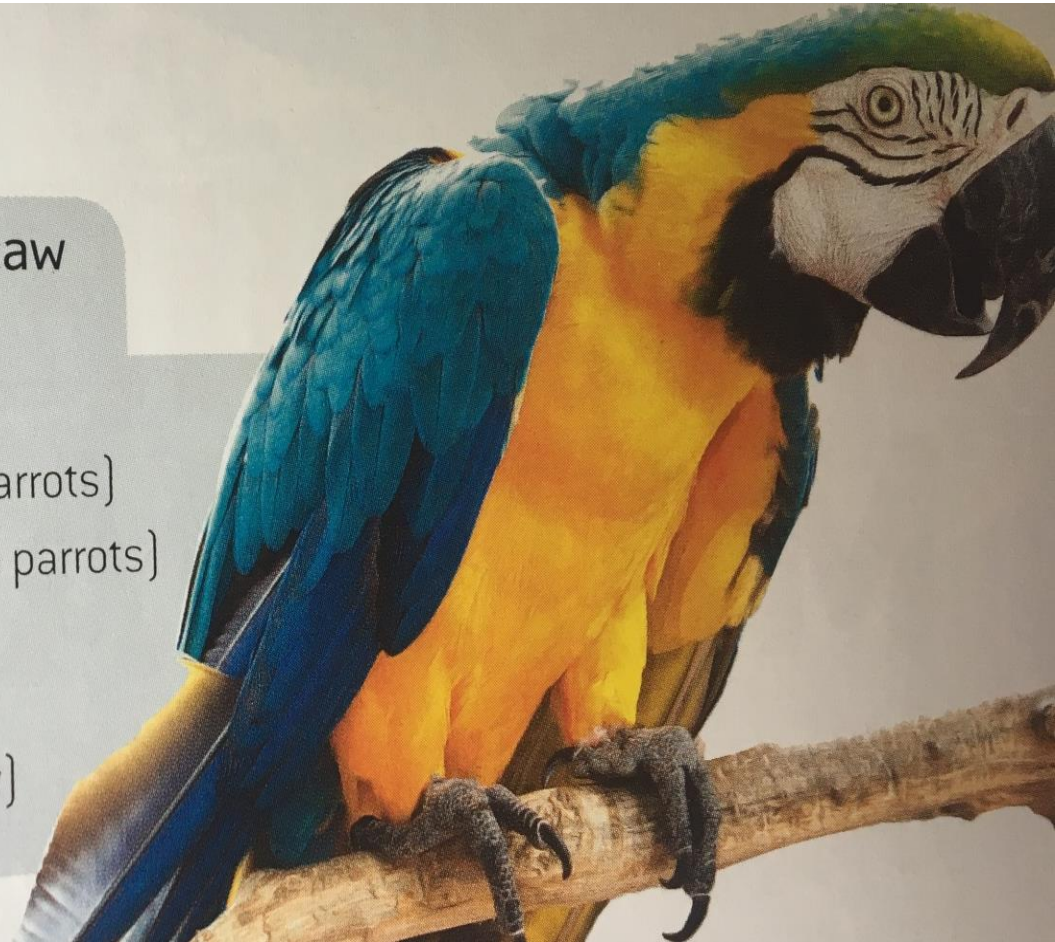
Class: Aves

Order: Psittaciformes (parrots)

Family: Psittacidae (true parrots)

Genus: *Ara* (macaws)

Species: *Ara ararauna*
(blue and yellow macaw)



Skill Development/Guided Practice

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

STEPS:

1. Identify the genus and species
2. Write the Genus name first with a capital letter
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4. Underline both words

Frill-necked lizard

Class: Reptilia

Order: Squamata (scaled reptiles)

Family: Agamidae (dragon lizards)

Genus: *Chlamydosaurus* (frill-necked lizards)

Species: *Kingii* (frill-necked lizard)

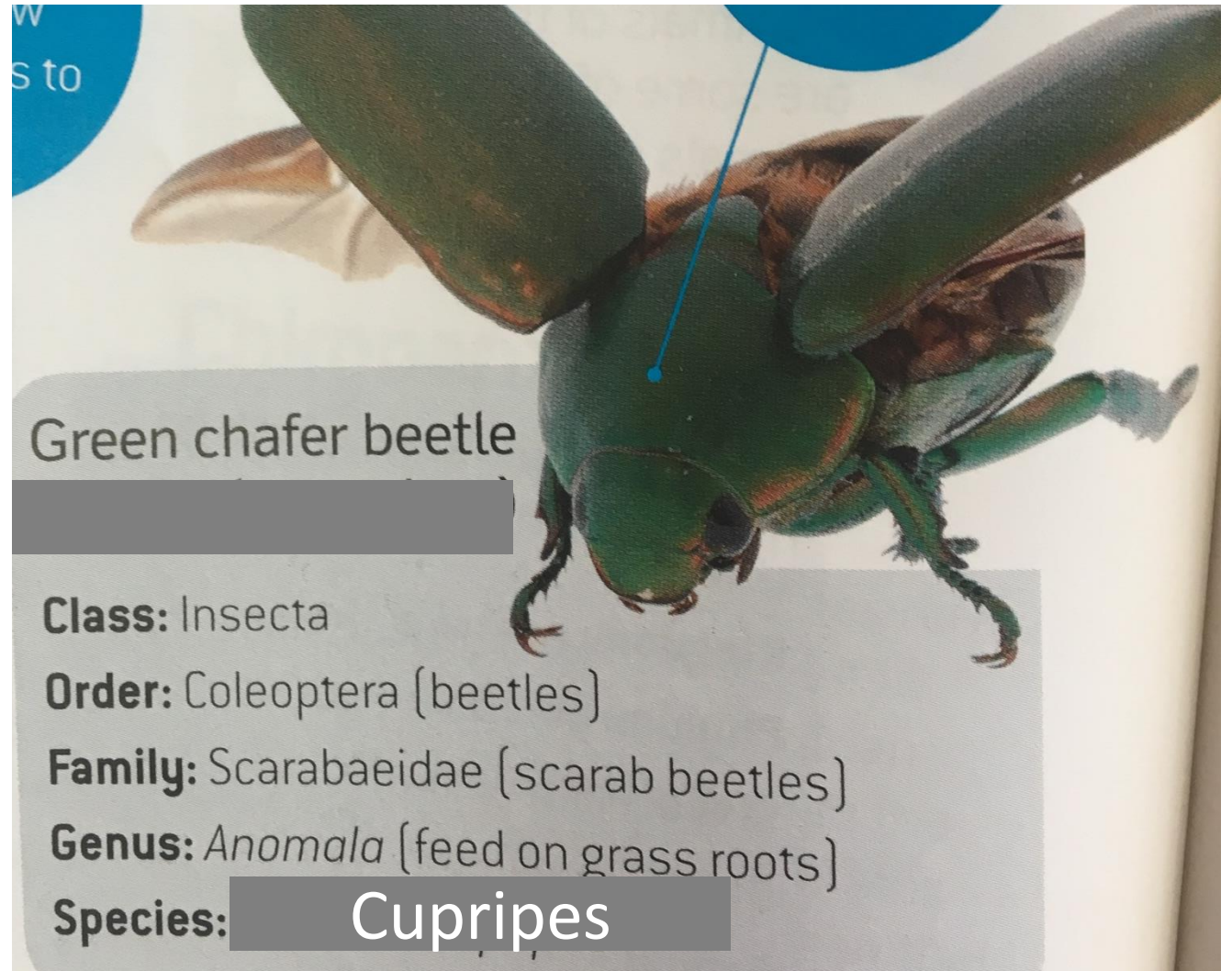
Frill-necked lizards fan out their frills to frighten attackers.

Skill Development/Guided Practice

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

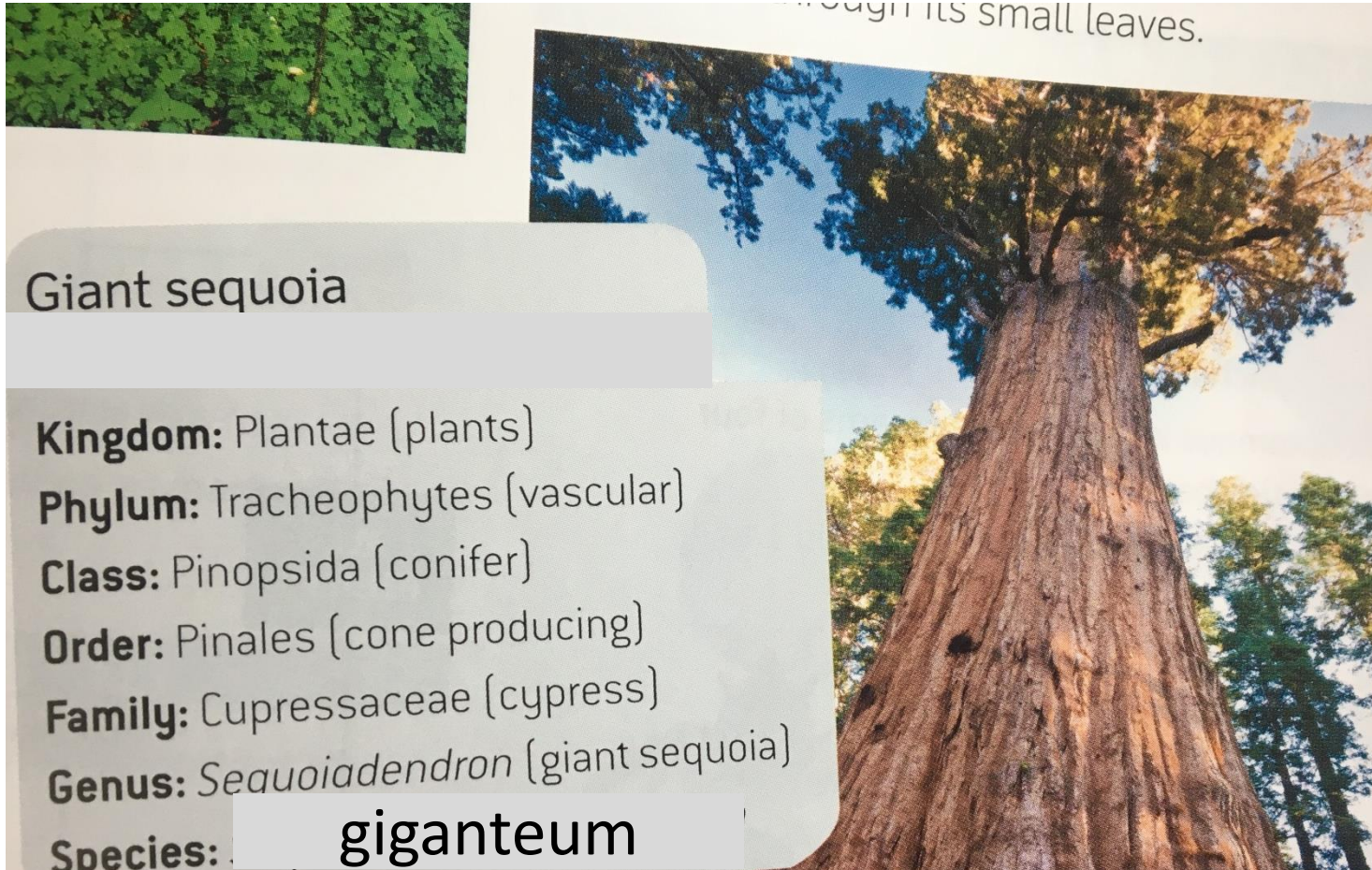
STEPS:

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4. Underline both words



Skill Closure

Write the scientific name for this organism.



through its small leaves.

Giant sequoia

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

Remember:

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

Skill Closure

Write the scientific name for this organism.

Venus flytrap

Kingdom: Plantae (plants)

Phylum: Anthophyta (flowering)

Class: Eudicotyledons (pollen)

Order: Caryophyllales (fleshy)

Family: Droseraceae (sticky sap)

Genus: *Dionaea* (snap trap)

Species: *muscipula*



STEPS:

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

Skill Closure

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



Macropus irma



Macropus robustus



Vombatus ursinus

Relevance

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.



Guinea pig

Not from Guinea (originally from South America), not a pig.



Vampire squid

Doesn't want to suck your blood, not a squid.



Ladybird

Not married to a Lord, not a bird.

Independent Practice

Around the room are different examples of animals and plants.

Find the common and scientific names of 10 different organisms.

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

Remember:

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