Summer Week 1 – Science Lesson 2

Can I classify living things in the wider environment?

In our first lesson we looked at how we can group different animals based on their specific features.

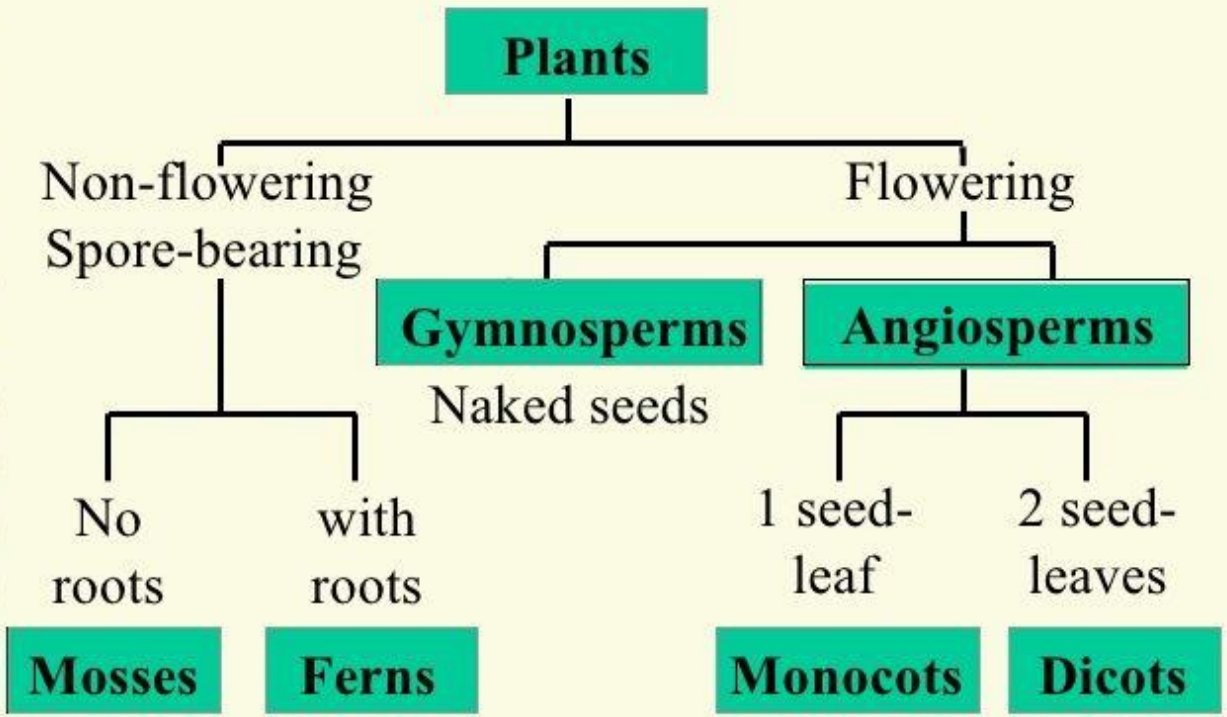
We learnt that main groups can be split into smaller subgroups.

Today we will be learning about the specific ways we can chart the groups – these are called classification charts. These charts let us see the break down of the main group into the smaller sections.

Classification charts are used to show the breakdown of the main group and sometimes show a few examples of species that fit within that group.

There are some examples in the next few slides.

Plant Classification



Vertebrates

Vertebrates have a backbone

Warm Blooded

Mammals

Mammals usually have hair and feed their young on milk. They give birth to live young.

Birds

Birds have bodies covered in feathers and their forelimbs are wings. They have scaly legs and beaks. Their young come from hard shelled eggs.

Cold Blooded

Fish

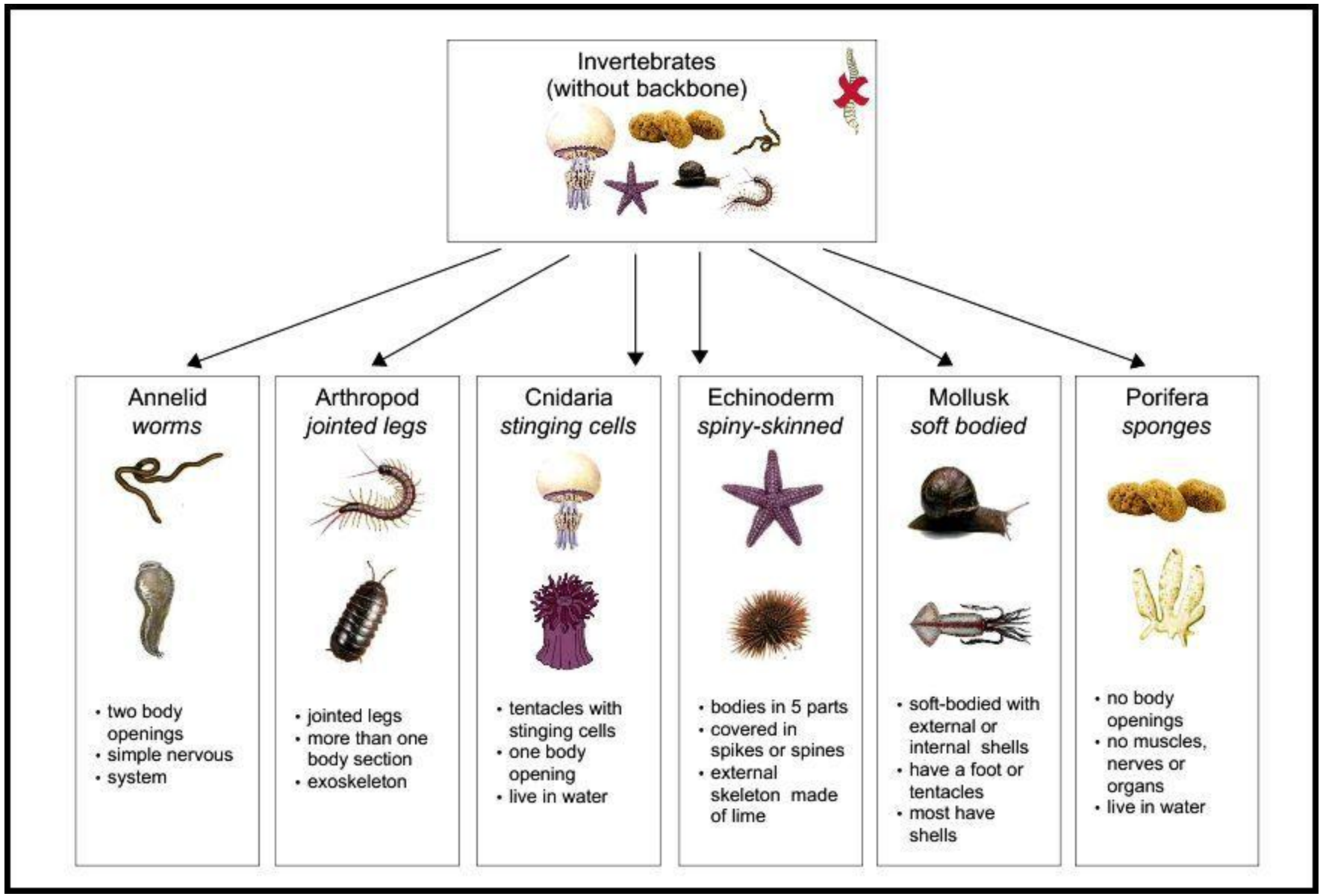
Fish live in water and breath through gills. They usually have fins and have elongated bodies covered in scales.

Reptiles

Reptiles have dry scaly skin and most lay eggs. They get their oxygen from lungs.

Amphibians

Amphibians like moist or wet environments. They breath through their lungs as well as their skin. Their young hatch from eggs.


Invertebrates
(without backbone)
Annelid
worms
• two body openings
• simple nervous
• system
Arthropod
jointed legs
• jointed legs
• more than one body section
• exoskeleton
Cnidaria
stinging cells
• tentacles with stinging cells
• one body opening
• live in water
Echinoderm
spiny-skinned
• bodies in 5 parts
• covered in spikes or spines
• external skeleton made of lime
Mollusk
soft bodied
• soft-bodied with external or internal shells
• have a foot or tentacles
• most have shells
Porifera
sponges
• no body openings
• no muscles, nerves or organs
• live in water

Invertebrates

Invertebrates don't have a backbone

Insects

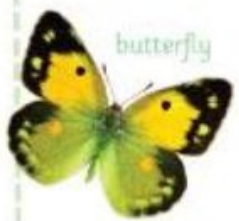
Insects have two antennae. Insects always have six legs and three body parts. Some insects have wings too.

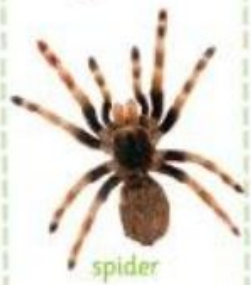

earwig

tick


scorpion

ant


butterfly


spider


bee

Arachnids

Arachnids, or spiders, have eight legs. They have two body parts but no wings.

Molluscs

Some molluscs have a shell, but all have a soft body and muscular foot. Molluscs have no legs.


snail


octopus


slug

Annelids

Annelids have long thin bodies divided into little rings. They usually live in the soil.


millipede


worm


centipede

Crustaceans

Crustaceans have a hard, external shell that protects their body.


lobster


crab


limpet

Echinoderms

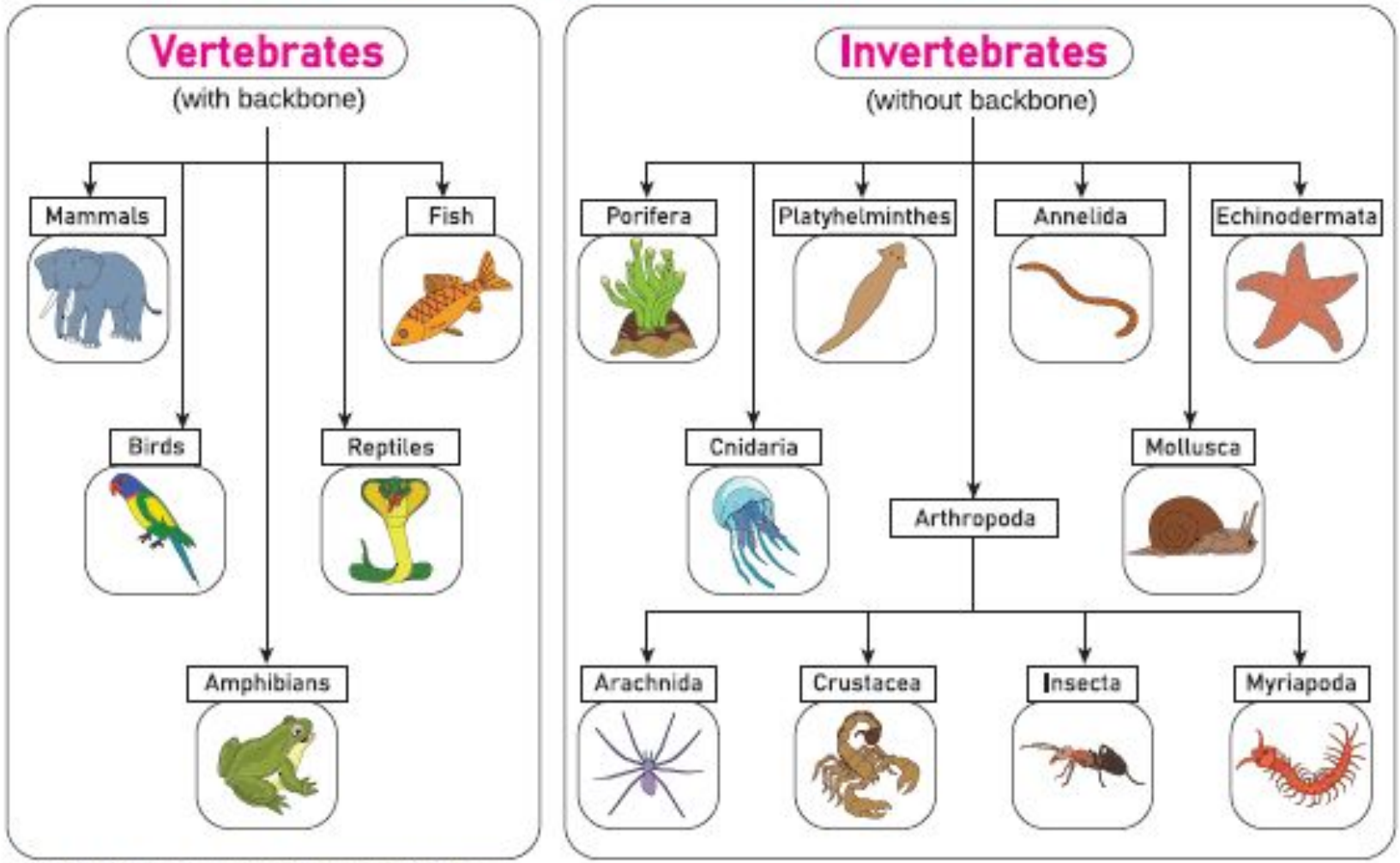
Starfish belong to a group of animals called echinoderms which means 'spiny skinned'.


starfish


sea cucumber

Protozoa

Protozoa are tiny one-celled animals that can only be seen with a microscope.


Vertebrates
(with backbone)
Mammals
Fish
Birds
Reptiles
Amphibians
Invertebrates
(without backbone)
Porifera
Platyhelminthes
Annelida
Echinodermata
Cnidaria
Arthropoda
Mollusca
Arachnida
Crustacea
Insecta
Myriapoda

We can take classification charts one step further and create ***classification keys*.**

A key is a **set of questions** about the characteristics of living things.
You can use a key to identify a living thing or decide which group it belongs to by answering the questions.

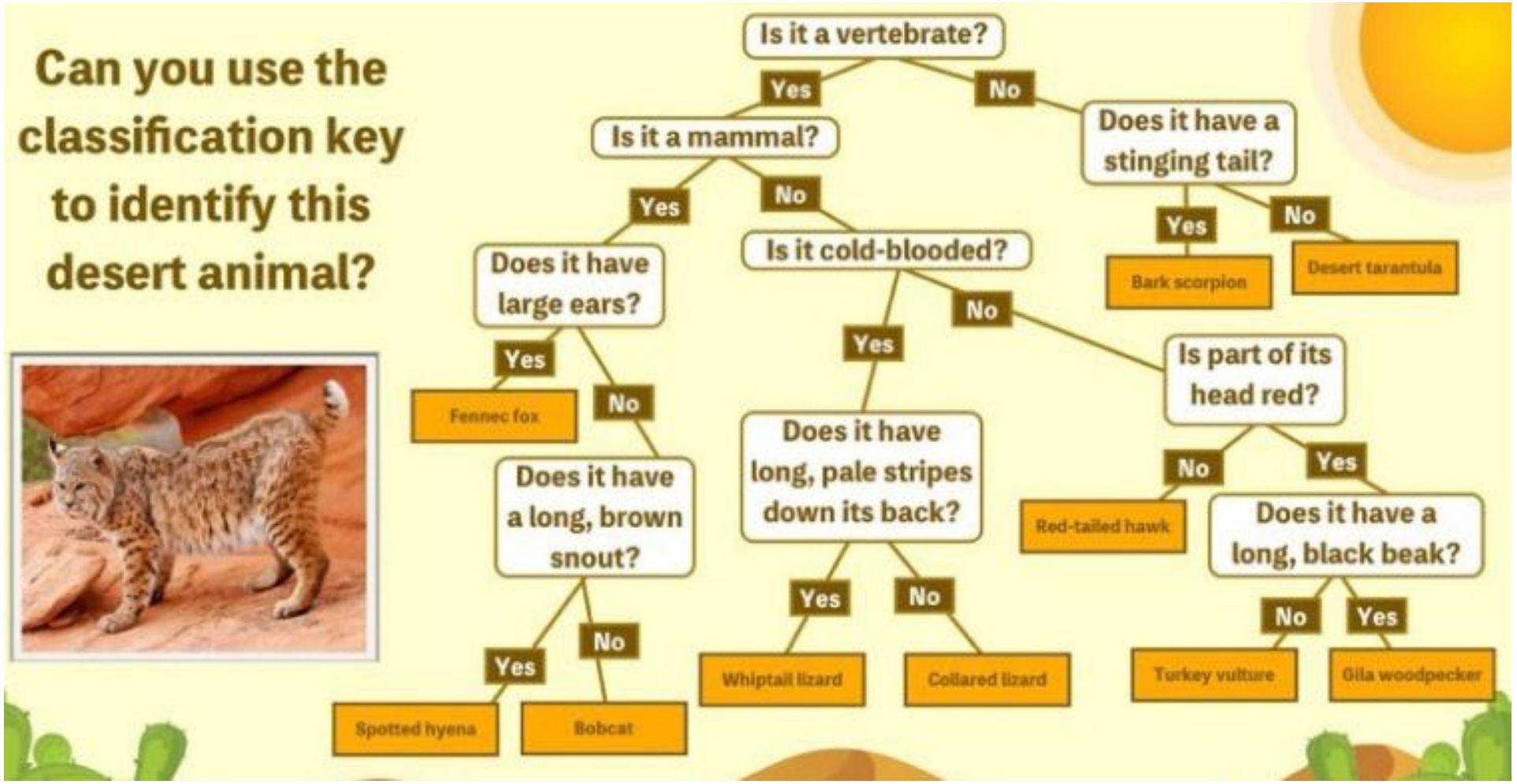
Classification keys are a crucial way for scientists to identify unknown species.

We know that we can use a classification key to help us identify an unknown living thing.

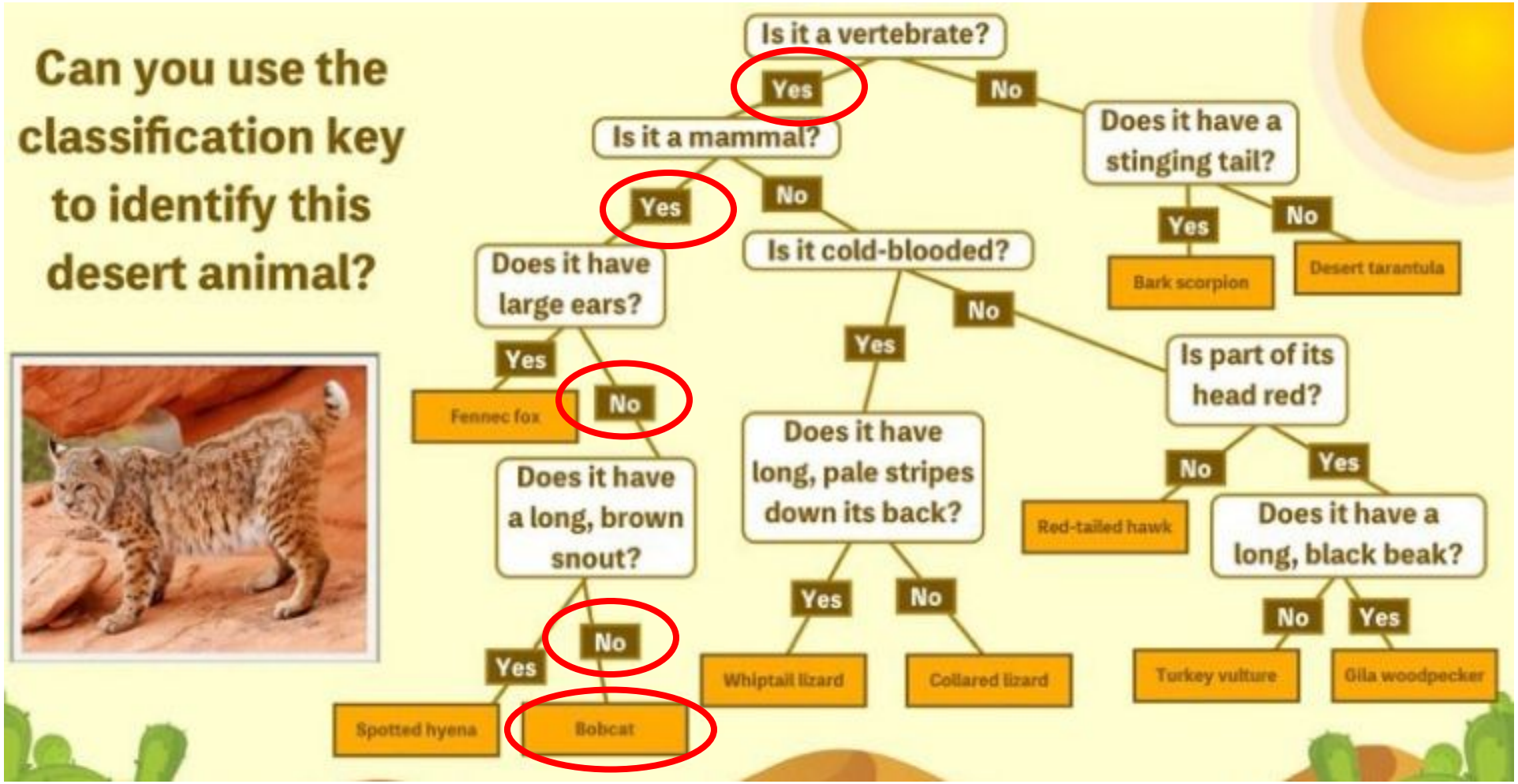
By following the flow chart of questions and looking at whether our organism answers yes or no to that specific question we can find out the name of the organism.

As you answer the questions the animals are sorted into smaller and smaller groups until there is only one possible answer.

Follow the questions in the flowchart to identify the animal.

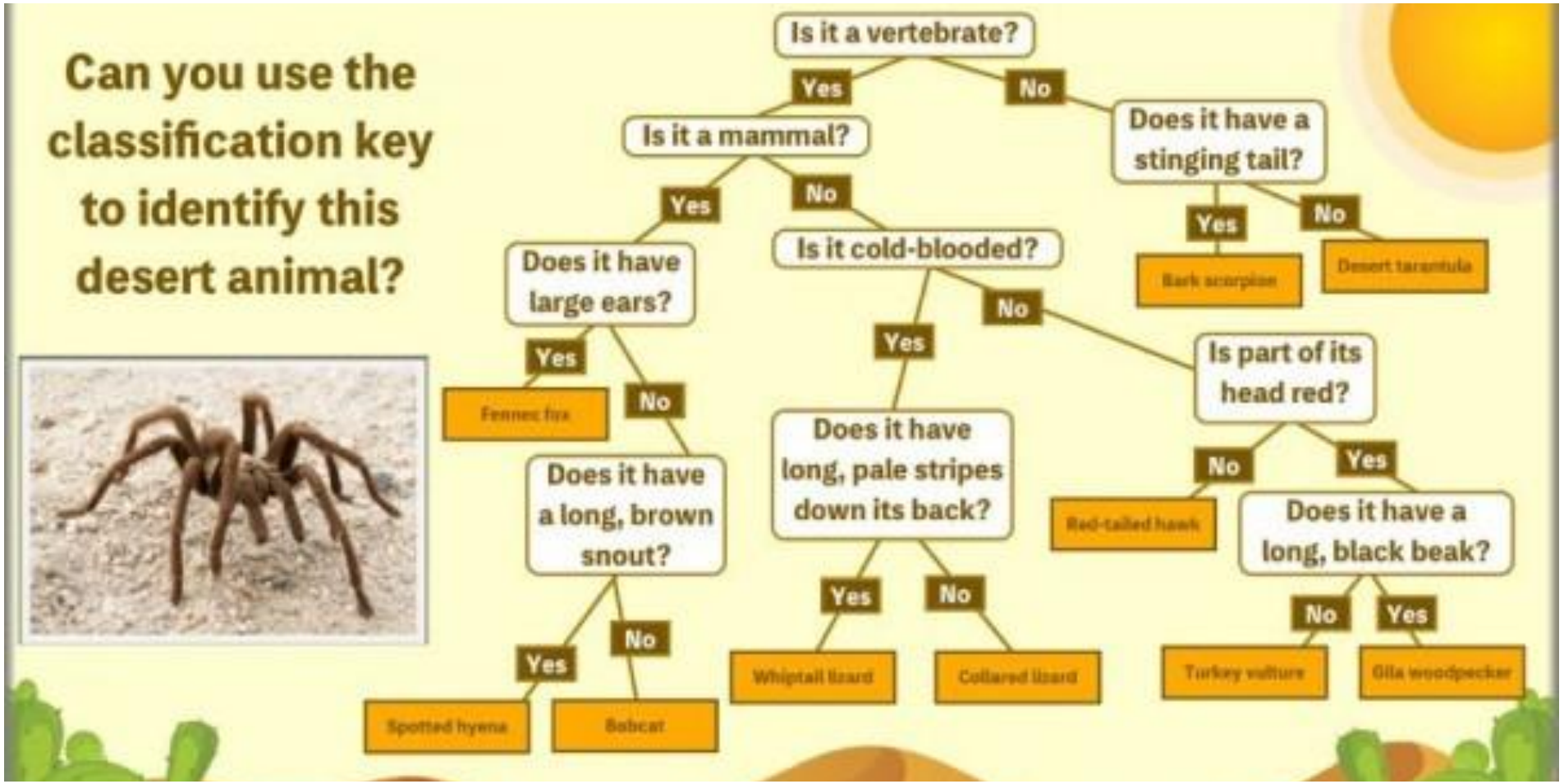


Answer on next slide

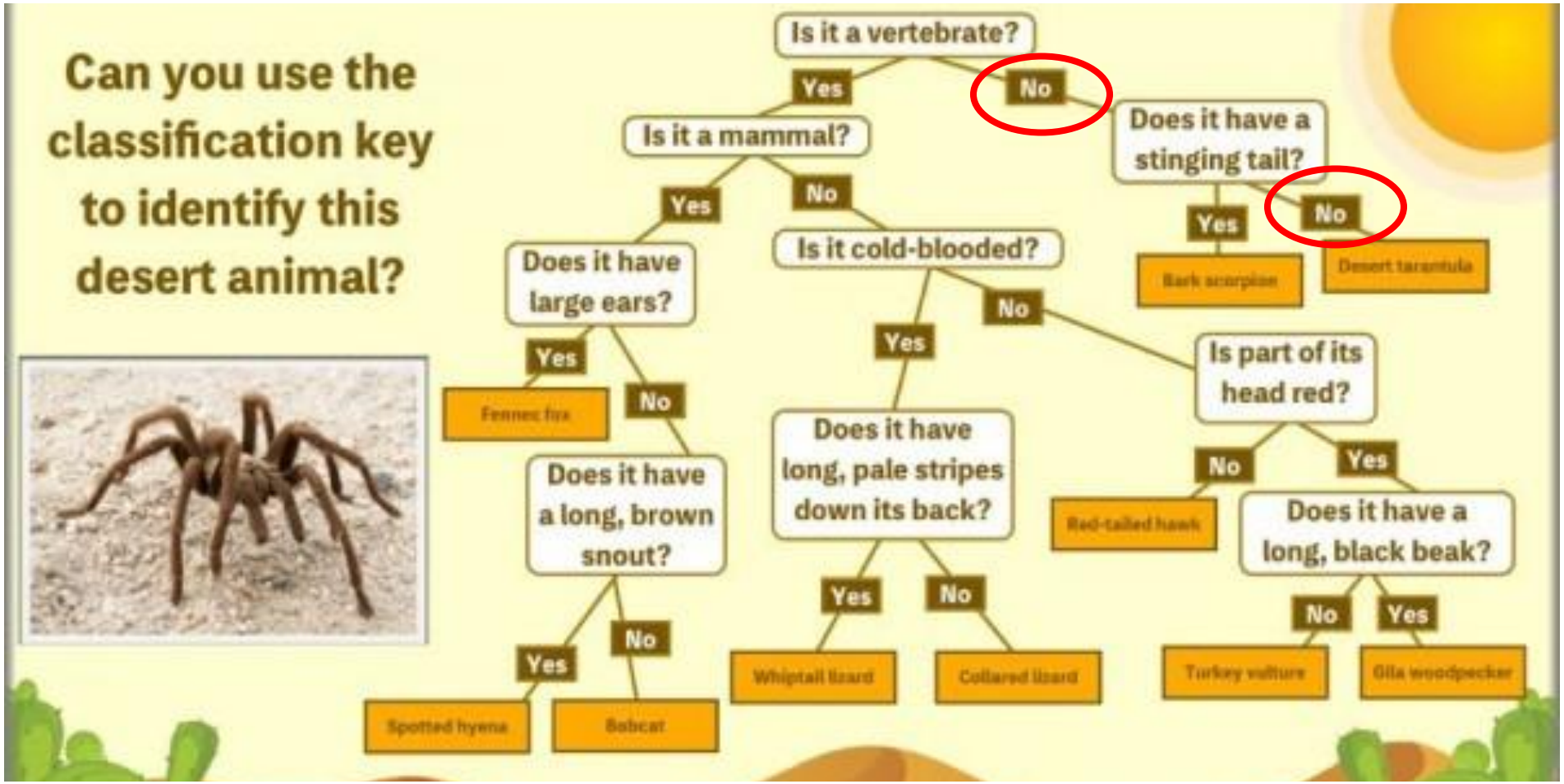


Following the questions we can work out the animal is a bobcat.

Follow the questions in the flowchart to identify the animal.



Answer on next slide



Following the questions we can work out the animal is a desert tarantula.

Today’s task helps us to understand classification keys as we use one to identify unknown animals from the features we can see.

There are photographs which show the animals and the support sheet from lesson 1 can help with which groups of animals are warm blooded.