



Classifying Living Things! Year 7 Science at Home

You can help! Your child is learning how scientists sort and name all the different living things on Earth. You can help them practise at home by sorting plants and animals you find around you!

Why are we learning this? Sorting living things — a very human thing to do

Humans have always needed to sort and name living things — knowing which plants are safe to eat, which animals are dangerous, and which insects are pollinators. First Nations peoples have sophisticated systems for classifying living things that go back tens of thousands of years, often organised differently from Western science but equally detailed and useful. Your child is learning the modern scientific system — the Linnaean hierarchy — which groups all living things from broad categories (Kingdom) right down to species level. Understanding this helps them make sense of the huge diversity of life around them.

My child will learn to:

✓ Understand why we classify

Explain that classification helps scientists identify, name and communicate about living things.

✓ Know the Linnaean hierarchy

Name the levels from Kingdom down to Species (King Philip Came Over For Good Soup!).

✓ Use a dichotomous key

Use yes/no questions to identify an unknown living thing step by step.

✓ Connect to First Nations knowledge

Understand that First Nations peoples have their own classification systems based on deep ecological knowledge.

Big ideas to know:

The Linnaean hierarchy

Scientists group living things in levels: Kingdom → Phylum → Class → Order → Family → Genus → Species. Lions and tigers are in the same Family (Felidae) and Genus (Panthera) but are different species — they are very close relatives!

Why two names?

Every species has a two-part Latin name: Genus + species. Humans are *Homo sapiens*. Using Latin means scientists everywhere in the world understand each other, regardless of their language.

Dichotomous keys

A dichotomous key is a series of yes/no questions that leads you to the identity of an organism. "Does it have a backbone? Yes → Does it have feathers? Yes → It is a bird." Your child uses these in class to identify real plants and animals.



HOW SCIENTISTS CLASSIFY LIVING THINGS

The Linnaean Hierarchy (broadest → most specific)

 KINGDOM		Animalia (Animals)	 The biggest group	Animalia (Animals)	
 PHYLUM		Chordata (Has backbone)	 Animals with backbones	Chordata (Has backbone)	
 CLASS		Mammalia (Mammals)	 Animals that feed their young milk		Mammalia (Mammals)
 ORDER		Carnivora (Meat-eaters)	 Animals that mostly eat meat		Carnivora (Meat-eaters)
 FAMILY		Felidae (Cat family)	 The cat family		Felidae (Cat family)
 GENUS		Panthera (Big cats)	 The big cat group		Panthera (Big cats)
 SPECIES		P. tigris (Tiger)	 A specific type		P. leo (Lion)

Tiger  ←----- Same family — close relatives! -----→  Lion



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The 5 Kingdoms of Life

Kingdom	What they are	Examples
Animals (Animalia)	Multicellular, eat food, can usually move	Humans, kangaroos, crocodiles, insects
Plants (Plantae)	Multicellular, make food via photosynthesis, cannot move	Grasses, trees, water lilies, ferns
Fungi	Absorb nutrients from dead material, not plants	Mushrooms, mould, yeast
Protists	Mostly single-celled, often in water	Algae, amoeba, paramecium
Bacteria	Single-celled, no nucleus, found everywhere	E. coli, Streptococcus, cyanobacteria

Think Like a Scientist — Backyard Classifier

Go outside and find 5 different living things — plants, insects, birds, anything. For each one, use yes/no questions to sort them: Does it have a backbone? Does it have feathers? Does it have leaves? Create your own simple dichotomous key.

Ask: "What do these two living things have in common? What makes them different? If you had to sort them into two groups, what question would you ask?" This is exactly what scientists do!

Questions to sort with:

1. Does it move on its own? (Animal vs plant/fungi)
2. Does it have a backbone? (Vertebrate vs invertebrate)
3. Does it have wings? (Bird/insect vs other)
4. Does it have leaves? (Plant sorting)
5. Does it produce flowers? (Flowering vs non-flowering plant)

Questions to ask your child

1. What kingdom does that living thing belong to? How do you know?
2. Can you name one thing a lion and a tiger have in common? One difference?
3. Why is it useful for scientists in Australia and Japan to use the same Latin names?
4. What would happen if two scientists used different names for the same animal?

5. How do First Nations peoples in your area classify the plants and animals on Country?
6. Why might a First Nations classification system group things differently from the Linnaean system?
7. If you discovered a new species of animal, what questions would you ask to classify it?

A dichotomous key is like a game of 20 Questions — help your child practise by starting with "Animal, Vegetable or Mineral?" and narrowing it down with yes/no questions. You do not need to know the answers — the process is the skill!

Key words to know:

Classification	The process of sorting living things into groups based on shared characteristics
Linnaean hierarchy	The 7-level system for classifying life: Kingdom, Phylum, Class, Order, Family, Genus, Species
Species	The most specific level — organisms that can reproduce with each other (e.g. Homo sapiens = humans)
Dichotomous key	A tool for identifying organisms using a series of yes/no questions
Genus	A group containing closely related species — lions and tigers are both in genus Panthera
Taxonomy	The science of naming and classifying living things
Biodiversity	The variety of living things — classification helps us measure and protect biodiversity

Key words to look up

Classification · Species · Dichotomous key · Genus · Taxonomy · Biodiversity · Kingdom

What school will check

By the end of Year 7, your child needs to explain how biological diversity is ordered and organised using classification systems including the Linnaean hierarchy and dichotomous keys.

Try it at home!

Pick any animal — say, a crocodile. Together, search 'crocodile scientific classification' online. Can your child find its Kingdom, Phylum, Class, Order, Family, Genus and Species? What other animals are in the same Family?