



Life Cycles! Year 3 Science at Home

You can help! Your child is learning about how living things grow and change. You can help them notice life cycles all around you!

Why are we learning this? Life cycles on Country

Up here in the north, life cycles are visible all around us. In the wet season, frogs emerge and breed, caterpillars transform into butterflies, and trees flower and fruit. First Nations peoples have always observed these cycles — knowing when the barramundi spawn, when certain plants flower, and when animals give birth has guided hunting, gathering and caring for Country for thousands of years. When your child studies life cycles, they are learning science that connects directly to the living world of their community.

My child will learn to:

✓ Know what a life cycle is

Understand that all living things are born, grow, reproduce and die.

✓ Compare different life cycles

See how a butterfly life cycle (metamorphic) is very different from a human life cycle.

✓ Classify living and non-living things

Sort objects into living, once living and non-living categories.

✓ Observe changes across stages

Notice how the features of a living thing change as it grows.

Big ideas to know:

Life cycles

All living things go through a series of stages from birth to death. This is called a life cycle. The cycle continues when they reproduce.

Metamorphic life cycles

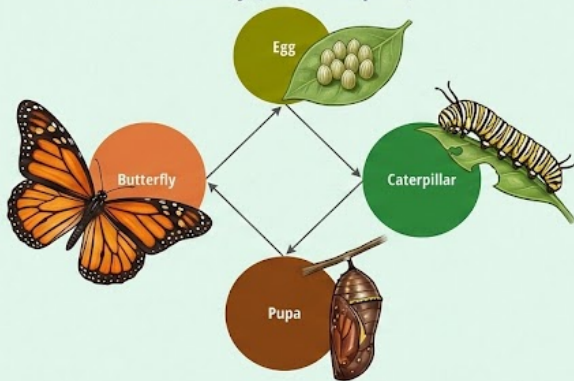
Some animals go through a dramatic change called metamorphosis — like a caterpillar becoming a butterfly or a tadpole becoming a frog. The stages look very different!

Non-metamorphic life cycles

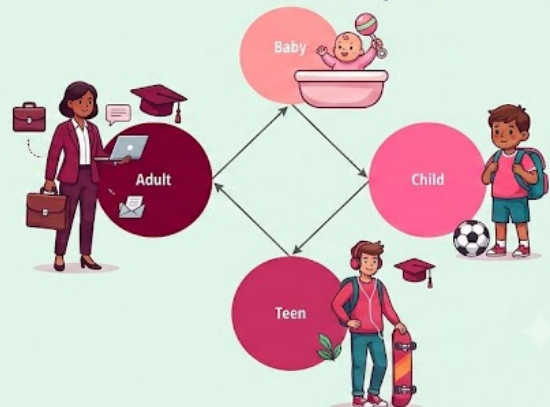
Humans, kangaroos and most mammals grow gradually. A baby looks like a small version of the adult — there is no dramatic transformation.

Life Cycles

Butterfly (metamorphic)



Human (non-metamorphic)





Comparing life cycles

Living thing	Life cycle stages	Type
Butterfly	Egg - Caterpillar - Pupa (chrysalis) - Butterfly	Metamorphic — big change!
Frog	Egg - Tadpole - Froglet - Frog	Metamorphic — big change!
Human	Baby - Child - Teenager - Adult - Old age	Non-metamorphic — grows gradually
Kangaroo	Joey (in pouch) - Young kangaroo - Adult	Non-metamorphic — grows gradually
Plant	Seed - Seedling - Plant - Flower - Seed	Plant life cycle — needs soil, sun, water

Think Like a Scientist — Life Cycle Observer

Choose a living thing around your home or yard — a plant, a caterpillar, or a spider web. Observe it for one week. How does it change? Draw what you see each day.

Ask: "What stage of its life cycle is it at? What will happen next? What does it need to move to the next stage?"

You will need: (Materials)

- Bean seeds
- Zip-lock bag and damp paper towel (for sprouting)
- Small pot or cup with soil
- Water
- Paper and pencil for daily drawings

Living things to observe:

1. A plant from seed (grow a bean in a zip-lock bag on the window)
2. A caterpillar or cocoon if you can find one outside
3. Eggs or tadpoles in a water container if available
4. A spider — does its web change day to day?
5. Photos of animal life stages to sequence and discuss

Questions to ask your child

1. What stage of its life cycle is that living thing at right now?
2. How is a tadpole different from a frog? What changed?
3. Is that object living, once living or non-living? How do you know?
4. What does a caterpillar need to turn into a butterfly?
5. Can you think of an animal that looks completely different as a baby vs an adult?
6. How long does a human life cycle take compared to a butterfly?
7. What life cycles happen during the wet season up here? What about the dry?

A bean seed sprouting in a clear zip-lock bag taped to the window is an amazing and free way to watch a life cycle happen in real time!

Key words to know:

Life cycle	The series of stages a living thing goes through from birth to death and reproduction
Metamorphosis	A dramatic change in body form during a life cycle — like caterpillar to butterfly
Living	Something that grows, breathes, moves, eats and can reproduce
Non-living	Something that was never alive — like a rock or water
Once living	Something that was alive but is no longer — like a dead leaf or wooden plank
Reproduce	To have young or make seeds so the species continues
Stage	One step in a life cycle sequence

Key words to look up

Life cycle · Metamorphosis · Living · Non-living · Once living · Reproduce · Stage

What school will check

Your child needs to compare characteristics of living and non-living things and describe the differences between metamorphic and non-metamorphic life cycles.

Try it at home!

Grow a bean seed in a zip-lock bag with a damp paper towel. Watch it every day. Draw the changes. Can your child name each stage of the plant life cycle as it grows?