Stage 2 tour -31st January – **SUSTAINABLE FOOD**

Usual stations:

* Aviaries
* Garden
* Chickens/ducks
* Mixed cows and goats
* Milking
* Foxes/pigs
* Patting
* Nursery
* Walk in
* Alpacas-ponies
* Wombats/joeys
* Koala

Outcomes:

Stage 2 of the Living World strand focuses on the classification, life cycles and survival of living things. Students consider the agricultural processes used to grow plants and raise animals

* compares features and characteristics of living and non-living things ST2-4LW-S
* describes how agricultural processes are used to grow plants and raise animals for food, clothing and shelter ST2-5LW-T

Focus Questions:

**Classification of living things**

**Inquiry question:** How can we group living things?

Students:

* collect data and identify patterns to group living things according to their external features, and distinguish them from non-living things (ACSSU044)

**Life cycles of living things**

**Inquiry question:** What are the similarities and differences between the life cycles of living things?

Students:

* identify that living things have life cycles (ACSSU072)
* conduct an investigation into the life cycle of plants and/or animals(ACSSU072)

**Survival of living things**

**Inquiry question:** How are environments and living things interdependent?

Students:

* describe how living things depend on each other and the environment to survive, for example: (ACSSU073)
	+ bees and flowers
	+ birds eat and disperse seeds

**Producing food and fibre from living things**

**Focus question:** How do we create food and fibre products from animals and plants?

Students:

* investigate and compare advancing technologies used in food and fibre production in Australian agriculture and those used in traditional agriculture, for example: (ACTDEK012)
	+ automated farming using microcontrollers and sensors compared to animal-drawn equipment
	+ autonomous vehicles to harvest crops compared to manual harvesting processes
* investigate food technologies and techniques used to produce healthy food, for example:
	+ peeling and segmenting/slicing fruits and vegetables
	+ follow a recipe step by step
	+ measure and mix ingredients
* design, plan and produce a product, system or environment to support the growth of a plant and/or animal:
	+ a greenhouse
	+ a chicken coop
	+ a watering system

How syllabus meets tour:

**Compares features and characteristics** of living and non-living things ST2-4LW-S

* 7 characteristics of living things

**Talk about these points or some of these points – either in garden or at patting**

Move – we move, even plants move to face the sun

Reproduce – we reproduce, even plants reproduce via seeds

Respond to stimuli – animals move away from danger, plants repair themselves when damaged

Take on nutrients – we eat, plants make their own food using sunlight, air and water

Excrete waste – plants and animals excrete gas and water

Respire – we breathe! Plants breathe also

Grow – we grow from babies to adults and plants grow from seeds to flowers or trees

* animal classification – reptiles, mammals, fish, birds, insects

what makes animals fit into these categories e.g birds need wings, fish need water, to breathe through gills and be cold blooded (think dolphin comparison – no gills, give birth to live young and are warm blooded)

* ask the students as you stop at stations what it would be classified as

**Life cycles of living things**

**Inquiry question:** What are the similarities and differences between the life cycles of living things?

Students:

* identify that living things have life cycles (ACSSU072)
* **ask them what the lifecycle of a plant is whilst in the garden**
* think plants – seed, seedling, sprout, flower, and think frog – egg, larvae, tadpole, frog
* conduct an investigation into the life cycle of plants and/or animals(ACSSU072)
* **ask them what the life cycle is for an animal (kangaroo or koala e.g born, pouch, out of pouch), chicken (egg, chick, chicken, egg) etc**
* **in garden talk about how they make a plant grow? What do they need to do – plant the seed in soil, water it and make sure it has access to sunlight**

 **Survival of living things**

**Inquiry question:** How are environments and living things interdependent?

Students:

* describe how living things depend on each other and the environment to survive, for example: (ACSSU073)
	+ bees and flowers
	+ birds eat and disperse seeds as they poop and travel
	+ **touch on drought in garden – plants and grass need rain to grow, think farms and crops. No rain, things cant grow therefore crops for humans don’t grow and grass and plants don’t grow for animals to eat – such as livestock on farms – sheep and cattle, then in turn means short supply of dairy and meat for us**
	+ **plants and grass contain nutrients. When animals such as cows and sheep eat these plants and grasses, they take in the nutrients, some are absorbed for their bodies others pass through their system and are dispersed around the paddocks as they poo where the nutrients returns to the ground to stimulate plant and grass growth and the cycle begins again**

**Producing food and fibre from living things**

**Focus question:** How do we create food and fibre products from animals and plants?

Students:

* design, plan and produce a product, system or environment to support the growth of a plant and/or animal:
* **what can we build to support the growth and production of food and products – chicken coops to be able to collect eggs easier and protect chickens from predators, greenhouses to care for plants in a more controlled environment and allows for irrigation and watering at a more concentrated level so not depending on rain, protects plants from animals and being damaged**
* investigate and compare advancing technologies used in food and fibre production in Australian agriculture and those used in traditional agriculture, for example: (ACTDEK012)
* autonomous vehicles to harvest crops compared to manual harvesting processes
* **shearing show**