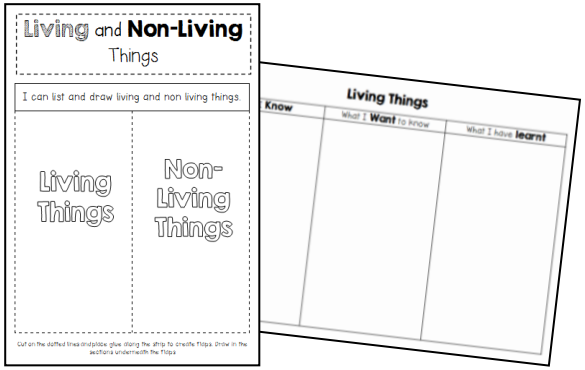
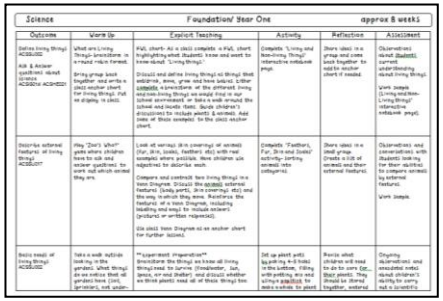
Living Things

Integrated & Interactive Science Unit

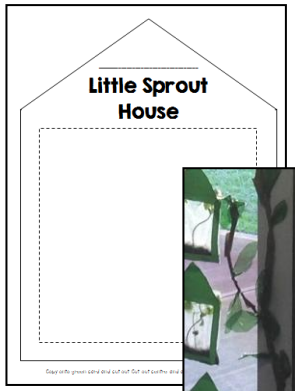
Graphic Organisers & Worksheets





Plans

Foundation to Year One



Craft Ideas

Aligned with the Australian Curriculum

Introduction and Background

- This unit was created as part of an integrated classroom theme. Children were immersed in the theme from the beginning of the term throughout all their Language, Maths, Science, Technology and Design and art lessons. This package includes a small sample of what was covered over the term.

- Each week we read a different 'focus text' as we focused on different aspects of living things (Australian Animals/ Zoo Animals/ Minibeasts/ Plants/ Gardens etc).

- We organised an excursion for all Foundation-Year 1 students to the Zoo where we participated in an educational experience about animal habitats and conservation before exploring the Zoo in small groups. We also organised a local wildlife rehabilitation centre to visit. They brought out a number of animals that could be found in our region for the children to engage with.

- Our home-corner/ Role play area was set up as a scientists lab filled with lab coats, safety glasses, microscopes, a collection of leaves, bark, nuts, seeds, fur etc, blank venn diagrams and labelling pages, coloured pencils, magazines, books, soft toys (animals) etc.

- We had a blank pin up board where children were encouraged to bring in pictures of living things from magazines etc and glue them onto the wall.

- We provided bug catchers, nets and magnifying glasses for children to use during outdoor time. They were allowed to safely collect things they found and look at them in the home corner but all insects had to be released at the end of the day.

- The classroom was decorated with giant blow up insects which we labelled together using flashcards, giant leaves and vines that the children created independently during activity time.

- While this was an integrated unit, one hour per week was spent working on the Science concepts. During this hour, we had the Schools Science Lab booked. This was also the time we were able to go on our walks around the School and complete our experiments.

English

- Focus on one book each week, using a mix of fiction and non-fiction texts.
- Look at narrative & informational report text structures & language features.
- Focus Reading Strategies; recalling facts and details, comparing and contrasting, author's purpose and sequencing.
- Write stories and reports about the animals we study.
- Write a recount of our zoo excursion.
- Hold 'Authors Chair' to share writing.
- 'What Bugs You?' writing activity.
- Asking questions- to ask our visitors.
- Guess Who Zoo descriptive writing.
- Vocabulary Booklets- Living things words.

Technology & Enterprise

- Build something for zoo/ school garden using recycled materials. E.g. a bird feeder (use the design, make, evaluate model).
- Use Paint or iPad design program to draw a picture of an animal in its habitat.
- Make a diorama of a zoo animal enclosure with a partner for a self-chosen animal.
- Incorporate ICT into everyday classroom routines- eg Brainstorms.
- Year 1- learn to log into computers and complete a simple Google search E.g. Animal Homes.

Unit Length: Approx 9 Weeks
Foundation/ Year 1
Theme: Living Things

Mathematics

- Sort animal counters by various features.
- Make patterns using various counters etc. Link to number patterns (Yr 1).
- Measure objects length, area & weight using indirect & direct measurement. Year 1 begin to use a ruler to compare objects.
- Measure and compare different animal footprints etc.
- Create insects/ animals using different 2D shapes (eg pattern blocks)
- Compare 2D shapes and 3D objects by the number of sides, faces, corners etc.
- Use data displays (pictograph) to answer simple questions. E.g. How many animals?

Focus Books

- Possum Magic- newspaper possums and descriptive writing.
- Silly Galah- write an animal report using a framework (Looks, eats, lives, does & special fact).
- There was an old Lady Who Swallowed a Meerkat- Draw a meerkat glue onto a habitat.
- The Very Ordinary Caterpillar- Compare to the Very Hungry Caterpillar. Make caterpillars out of paper chains and butterflies out of origami paper. Look at life cycles.
- The Wide Mouthed Frog- Look at life cycles. Write a report about a frog (moderation task).
- Uno's Garden- Made up animals. Use switch zoo to create own animal and describe.
- The Enormous Carrot- Vegetable printing.
- The Tiny Seed- Parts of a plant and the things they need to live.

Other

- Excursion to Zoo and Australian Animals Incursion (Wildlife Rehabilitation Centre).

Science

- Edible Garden Cups- Soil layers, bugs & flowers.
- Individual 'My Observations' Books
- Sorting and classifying animals by physical characteristics and actions.
- Grow and look after seeds. Record growth and make observations.
- Compare and contrast animals.
- 'Living Things' wall. Children bring in pictures to sort and glue onto the wall.
- Observation Station Home Corner- Change animals frequently (insects, seeds, goldfish etc).
- Growth of plants/ animals- Life Cycles.
- Use natural materials to build an insect .

Resources

You To Provide	Included
• Anchor Charts- these are posters you create with your class to display around the room. I like to make mine on A2 card. • Zoo's Who game- Can be purchased from game stores. You can make your own version by having flashcards with animals on them and playing like celebrity heads. • A collection of animal coverings (eg feathers, a piece of fur etc). Many items can be found at Spotlight. • Experiment 1: Ziplock bags, potting mix, lima beans, water, scissors, sticky tape and staples. • Experiment 2: Little pots (I use the tough cup cake wrappers made from card), potting mix, flower seeds and water. • Craft supplies- sticky tape, glue, scissors, pencils, textas, crayons, coloured card, empty boxes etc. • Collection of leaves, nuts, seeds, grasses, bark etc from outside (the children will collect this as part of the unit). • Pictures of insects cut into 5 pieces for children to put back together as a grouping activity. • Patty Pans, wool and sunflower seeds • Books: The Tiny Seed (Eric Carle), Did You Know? (Deanna Jump)	• Blank KWL chart (enlarge to A3). • Living & Non Living Things interactive notebook page. • Compare and Contrast animals- Blank Venn Diagram. • Label It! Worksheet. • Feathers, Fur, Skin or Scales notebook page. • Experiment 1: Little Sprout House page (copy onto green card). • Worms Y chart (enlarge to A3 for each group). • Parts of a flower labels.

Science	Foundation/ Year One	approx 9 weeks

Outcome	Warm Up	Explicit Teaching	Activity	Reflection	Assessment
Define living things ACSSU002 Ask & Answer questions about science ACSIS014/ ACSHE021	What are Living Things- brainstorm in a round robin format. Bring group back together and write a class anchor chart for living things. Put on display in class.	KWL chart- As a class complete a KWL chart highlighting what students know and want to know about 'Living things.' Discuss and define living things as things that eat/drink, move, grow and have babies. Either complete a brainstorm of the different living and non-living things we would find in our school environment or take a walk around the school and locate items. Guide children's discussions to include plants & animals. Add some of these examples to the class anchor chart.	Complete 'Living and Non-living Things' interactive notebook page.	Share ideas in a group and come back together to add to anchor chart if needed.	Observations about students current understanding about living things. Work sample (Living and Non-Living things' interactive notebook page).
Describe external features of living things ACSSU017	Play 'Zoo's Who?' game where children have to ask and answer questions to work out which animal they are.	Look at various skin coverings of animals (fur, skin, scales, feathers etc) with real examples where possible. Have children use adjectives to describe each. Compare and contrast two living things in a Venn Diagram. Discuss the animals external features (body parts, skin coverings etc) and the way in which they move. Reinforce the features of a Venn Diagram, including labelling and ways to include answers (pictures or written responses). Use class Venn Diagram as an anchor chart for further lessons.	Complete 'Feathers, Fur, Skin and Scales' activity- sorting animals into categories.	Share ideas in a small group. Create a list of animals and their external features.	Observations and conversations with students looking for their abilities to compare animals by external features. Work sample.
Basic needs of living things ACSSU002	Take a walk outside looking in the gardens. What things do we notice that all gardens have (soil, sprinklers, not under-	** Experiment Preparation** Brainstorm the things we know all living things need to survive (food/water, sun, space, air and shelter) and discuss whether we think plants need all of these things too.	Set up plant pots by poking 4-5 holes in the bottom, filling with potting mix and using a popstick to make a whole to plant	Revise what children will need to do to care for their plants. They should be stored together, watered	Ongoing observations and anecdotal notes about children's ability to carry out a scientific

Ask questions about scientific enquiries ACSIS014/ ACSHE021 Assist in the planning of a scientific enquiry ACSIS011	cover etc). Guide students to suggest reasons why we have these things in the garden.	Set up the Lima Bean ziplock bag as a class. Place a little potting mix on the bottom and put a lima bean inside. Spray with water and seal. Cut out the 'Sprout House', staple on front of bag and sticky tape bags to window to get some light. Plant Pots: Have children predict what changes they will see as their seeds begin to grow. Record these predictions on a class list. Make some observations about what the seed currently looks like.	and cover the seed. ** Teacher to handle potting mix as it can be toxic**	daily and given time out in the sun.	experiment using a given framework and students ability to record information.
Describe external features of living things ACSSU017	Recap previous weeks looking at describing a living thing by the way it looks and ask children to show you how different animals move by playing Simon Says. 'Simon says, act like a fish' etc.	Discuss how living things move in different ways because they look different and are made up of different parts. Cats and Dogs move differently to people because they have 4 legs instead of two. As a class create a Y chart to describe what a gummy worm looks like, feels like, smells like. Model the use of adjectives to accurately describe their items. Explain to the children they are going to move to small groups and do a Y chart of their own about a real life earth worm. Ask them: 'How do you think an earth worm moves when it doesn't have legs?'	Break students into groups and have them complete a Y chart to describe their earth worm.	Bring class back together to compare results from their worm observations. Record children's observations on a class Y chart.	Use a checklist to note which children are accurately able to describe a living thing by the way it looks and the way it moves.
Describe external features of living things ACSSU017	Insect Puzzle. Split the class into 4-5 groups and give each group an insect puzzle to put together. Rotate through puzzles if necessary.	Read 'Did You Know' by Deanna Jump (TpT) and compile a list of the features of insects (3 body parts, 6 legs etc). Look at and label pictures of different insects to check. Demonstrate 'building' an insect out of the given materials and model completing the design picture and having a friend check.	Allow children time to build a 'bug' out of their materials and complete the design worksheet.	Pull the class back together and have children share their bugs with each other. Take photos or place bugs on display.	Take note of whether children's designs include the features of insects (3 body parts, 6 legs, wings etc)

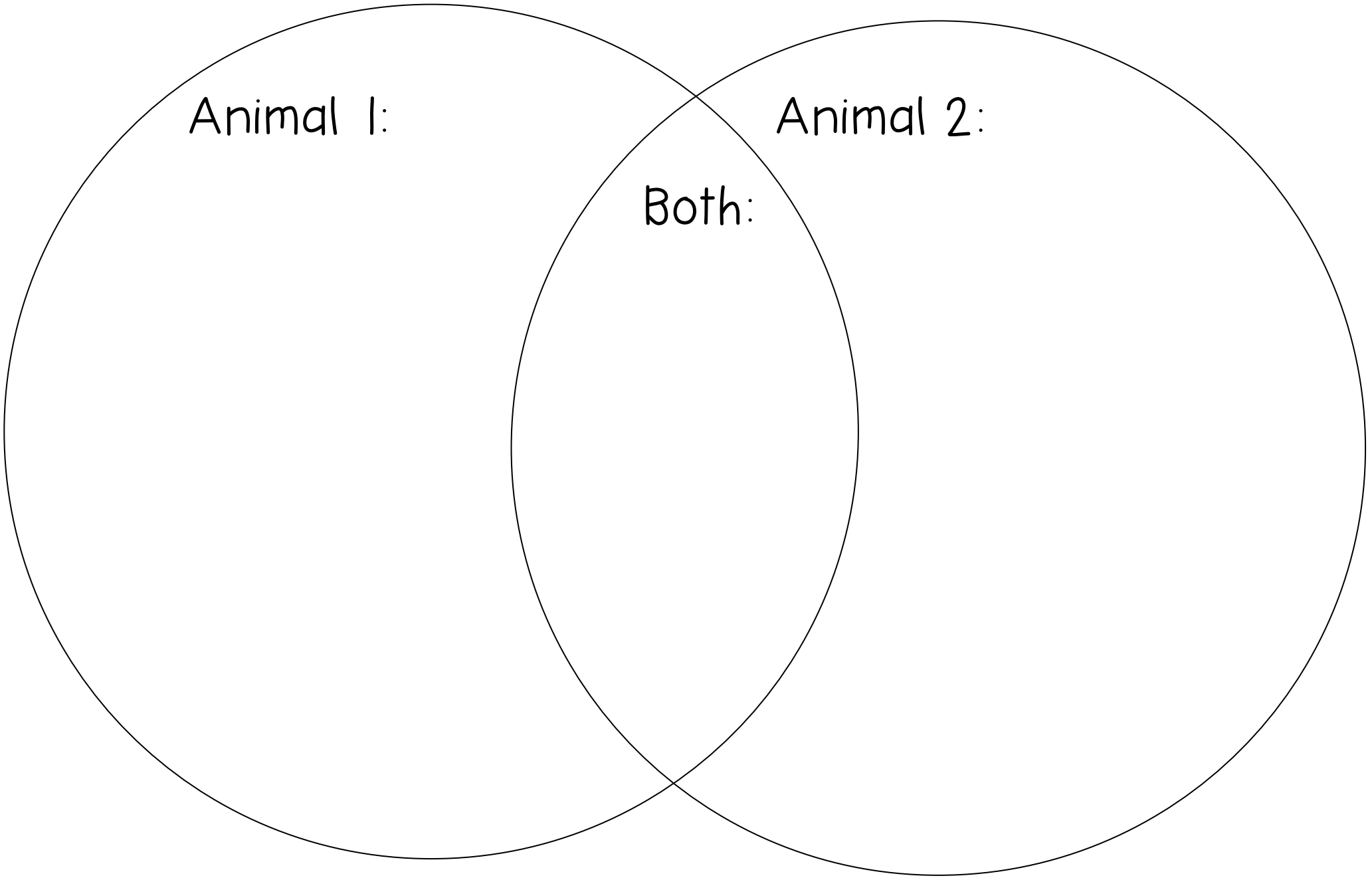
Explore habitats of living things ACSSU211	Watch 'I Got A Habitat' video. https://www.youtube.com/watch?v=H_CSILIuVZS	Brainstorm all the different animal homes we know of (link back to Zoo excursion and what we saw in the enclosures). Break down into a few categories (beach, bush, backyard/ land or water etc). Sort pictures or name cards (Smartboard?) into categories. Discuss the features of different habitats that make them perfect for the people/ animals that live there.	Go to the computer lab and have children draw an animal habitat using the paint program. Print for display in classroom.	Compile a class list of what lives in different habitats. Create a class anchor chart(?)	Observations and conversations with students looking for their abilities to sort animals by their habitats. Work sample.
Technology Process/ Materials Explore habitats of living things ACSSU211 Care of the environment and living things ACSHE022	Revise information from last week. Re-watch habitat video if necessary. * This is designed as a T&E lesson and should be integrated*	** Link with Technology & Enterprise** Discuss what would happen if habitats changed. What would happen if all the trees were cut down in a forest? What would the animals do? Explore ways to make a new home for animals using recycled materials. Go through the different materials and suggest which ones would be most suitable for outdoors. If possible, have some parent helpers come in and assist the children. This would mean being able to complete a woodwork activity.	Allow children to work in pairs or small groups to design and make an animal home (bird house) using recycled materials.	Share models with the class and reflect on what was good, what didn't work and what you would change next time.	Observations and conversations with students looking for their abilities to match animals with appropriate habitats. Work sample. Look at design process.
Basic needs of living things ACSSU002 Describe external features of living things ACSSU017	Read The Tiny Seed by Eric Carle. Looking at the life cycle of a plant.	Revisit the plant experiment, looking at how much our different plant samples have grown. Discuss what things we needed to do to make sure our plants grew (water, sun, soil etc). Look closely at the ziplock bag samples, using magnifying glasses, looking at the different parts of a plant. As a class, draw up a diagram showing the life cycle of a plant and what would happen to our samples soon.	Children to create a diagram showing the different parts of a plant. See example. 	Hang work up for display. Have children share their choices with a partner.	Observations and conversations with students. Look at labelling and understanding of the needs of living things. Work sample.

Define living things ACSSU002 Ask & Answer questions about science ACSIS014/ ACSHE021 Basic needs of living things ACSSU002	Repeat activity from first lesson- What are Living Things- brainstorm in a round robin format.	Re look at KWL chart started at the beginning of the unit. Read together to discuss what we knew at the start of the unit. Have children break into pairs (or small groups) and share what they have learnt. Bring class back together to complete the last column of the chart. Look at all samples from experiments (Send home today) and collect any last data.	Allow children to create a poster explaining one thing they have learnt over the unit. Display in classroom.	Share ideas and posters with the class. Linking back to KWL chart and adding if necessary.	Observations and conversations with students. Work sample.

Living Things

What I **Know**	What I **Want** to know	What I have **learnt**

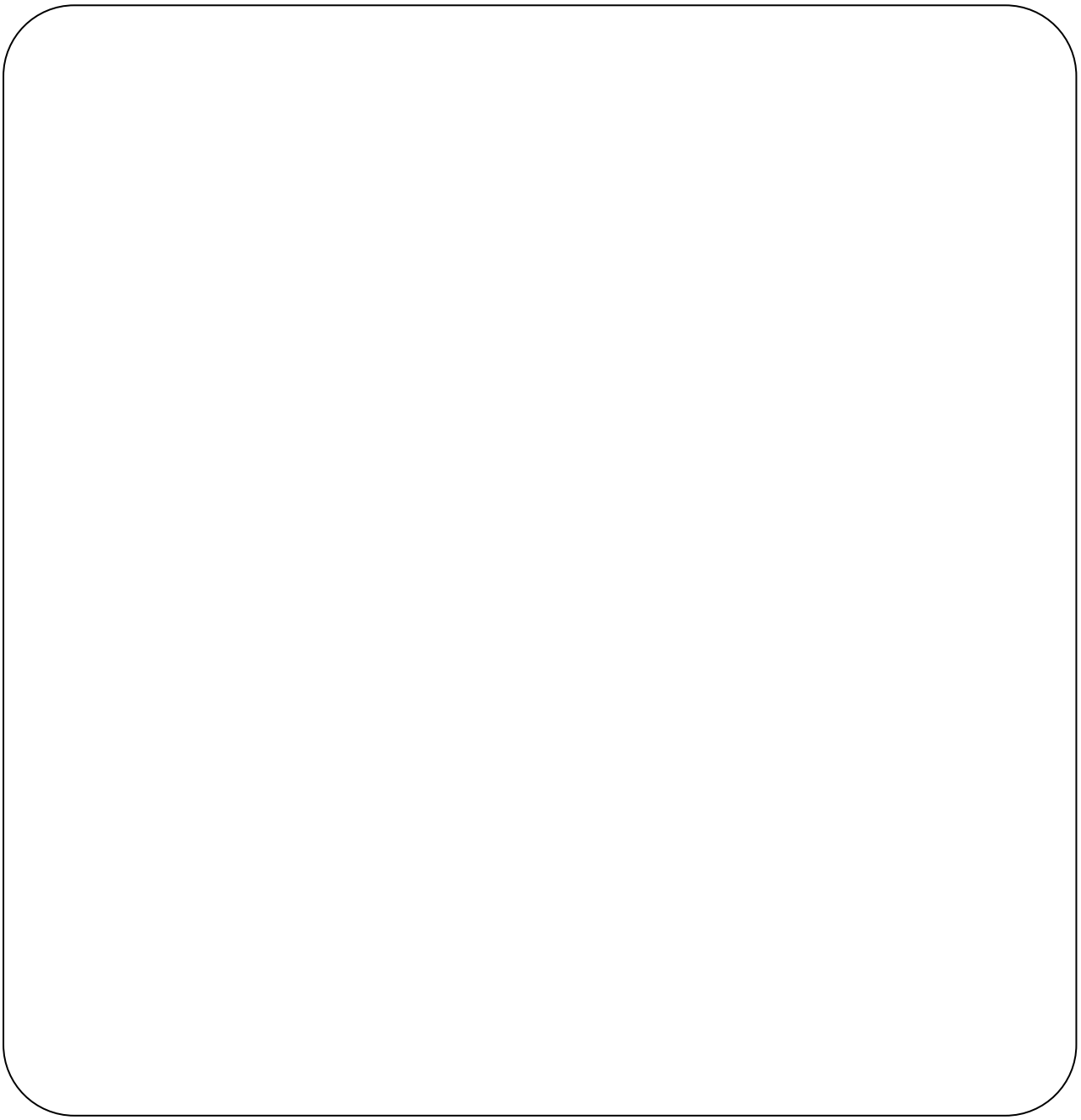
Compare & Contrast



Label It!

Draw a detailed picture of an animal and label all the different parts

Animal: _____



Living and Non-Living Things

I can list and draw living and non-living things.

Living Things	Non-Living Things

Cut on the dotted lines and place glue along the strip to create flaps. Draw in the sections underneath the flaps

Feathers, Fur, Skin or Scales

Draw a picture of something that has feathers, fur, skin or scales. Share your pictures with the class.

I have **Feathers**	I have **Fur**
I have **Skin**	I have **Scales**

_____

Little Sprout House

Copy onto green card and cut out. Cut out centre and attach house to ziplock bag.

Looks Like

Worms

Feels Like

Smells Like

roots	stem	leaves
petals	seeds	sun
soil	air	water

roots	stem	leaves
petals	seeds	sun
soil	air	water

roots	stem	leaves
petals	seeds	sun
soil	air	water