



ECDA – NParks Innovation Guidance Project: “Our City in a Garden”

Lesson 1: Introduction to City in a Garden

Learning areas	Learning Goals	
Language and Literacy	Learning Goal 1:	Speak to convey meaning and communicate with others
Self and Social Awareness	Learning Goal 1:	Develop an awareness of personal identity
	Learning Goal 2:	Take responsibility for their actions
Discovery of the World	Learning Goal 1:	Show an interest in the world they live in
	Learning Goal 2:	Develop a positive attitude towards the world around them

Lesson objectives:

Children will:

1. Recall and talk about their experiences and events.
2. Show care and respect for living things and the environment.
3. Develop an awareness of the impact of human actions on themselves, others and the world they live in.

Learning disposition:

1. Reflectiveness
 - Strategy: Encourage the children to express and share their feelings, thoughts and opinions about Singapore’s biodiversity and how they can maintain our relationship with plants and animals.

What to prepare:

- NParks’ ‘Pecky the Pangolin Explores Singapore’ DVD
- Photos of Singapore’s greenery
- Photos of a clean and dirty environment
- Whiteboard, markers and laptops

What to do:

Tuning In:

1. Gather the children and show pictures of dirty and clean environment to children.
2. Discuss with children what they see on the pictures and compare the differences.

Questions for discussion:

- What can you see in this picture?
- What animals or plants can you see here?
- Why is the environment like this?
- If you were an animal, which environment would you like to live in? Why?

Lesson Development:

1. The teacher will gather the children and inform them that they will be watching a short video (NParks' Video 1: Peeky the Pangolin Explores Singapore, a City in a Garden).
2. Prior to the video, ask children some of these questions:
 - What can you usually find in a garden/park/nature reserve?
 - What do you like about these places? Why?
 - Have you been to a park or garden? What did you do there?
3. After the video, children will discuss what they have seen in the video.

Questions for the discussion:

- Which do you think is better for the animals - the Kallang River before or after?
- Why is Sungei Buloh important to migratory birds?
- Where can we find the biggest patch of rainforest in Singapore?
- What can we do at our park connectors to stay fit and healthy?
- How old is the Singapore Botanic Gardens?
- How can we help to take care of our City in a Garden?

Closure:

Teachers will post a large chart on the board, divide it into three columns, and label them K (What We Know), W (What We Wonder), and L (What We Learned). Teacher will ask the children to brainstorm on the columns K and W about City in a Garden. Teacher will then display the KWL Chart on the board.

Parental Involvement:

Invite parents to take their children to the park during the weekends. The children will draw what they had seen or done at the park and share it with their peers in the following week.

Lesson 2: Animals Around Us

Learning areas	Learning Goals	
Language and Literacy	Learning Goal 1:	Speak to convey meaning and communicate with others
Self and Social Awareness	Learning Goal 1:	Develop an awareness of personal identity
	Learning Goal 2:	Take responsibility for their actions
	Learning Goal 3:	Communicate, interact and build relationships with others
Discovery of the World	Learning Goal 1:	Show an interest in the world they live in
	Learning Goal 2:	Develop a positive attitude towards the world around them

Lesson objectives:

Children will:

1. Identify the different types of wildlife animals found in Singapore
2. Show care and respect for the living things and the environment.
3. Develop an awareness of the impact of human actions on themselves, others and the world they live in.

Learning disposition:

1. Engagement:
 - Strategy: Encourage the children by acknowledging their efforts such as “Well done, you found your pair!” or “You did a great job in describing the animal!” (LD4).

What to prepare:

- NParks’ ‘Pecky the Pangolin Explores Singapore, a City in a Garden’ DVD
- NParks’ Snap Card Game
- Feely bag
- Song Chart: So Many Animals
- Drawing materials

What to do:

Tuning In:

3. Gather the children in a semi-circle.
4. Introduce the song – “So Many Animals” to the children.
5. Sing along to the song using actions.

Lesson Development:

1. Teachers will then gather the children and inform them that they will be watching a short video (NParks’ Video 3: Peeky the Pangolin Explores Singapore’s Wildlife).
2. Prior to the video, ask the children some of these questions:
 - What animals do you like?
 - What is the difference between wildlife animals and pets?
 - What wildlife animals have you seen in Singapore?
3. After the video, the children will discuss what they saw in the video.

Questions for discussion:

- Why does a little Egret have tall, skinny legs?
 - How did the beautiful Olive-backed Sunbird get its name?
 - What does the Malayan Colugo like to eat?
 - Why shouldn’t we feed monkeys such as the Long-tailed Macaque?
 - What can we do to protect our wildlife friends?
4. Inform the children that we will be playing a matching game.
 5. Teachers will explain the game rules to the children. Teacher will place some snap cards in the feely bag and get each child to draw a card. The children will then look at the picture on their card and search for another student who holds the same snap card.
 6. The pair will sit together on the floor while waiting for the rest to find their pair.
 7. Children will be invited as a pair to talk about the animal in the snap card.

Closure:

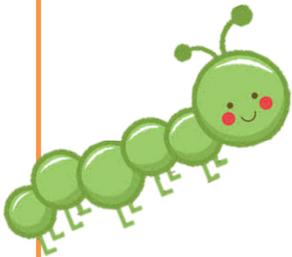
Children will draw their favourite animal from the snap cards and say a sentence, “I like the _____ because it is _____.” Teachers will then collate the drawings and compile it into a class publication.

Song Chart:

So Many Animals



Birds fly high and bees fly low.



Caterpillars creep and
crawl like so.

Cats 'meow' and cows go 'moo'

Puppies bark and pigeons coo.

So many animals to see and hear,

I use my eyes and I use my ears.



Lesson 3: Storytime!

Learning areas	Learning Goals	
Language and Literacy	Learning Goal 1:	Listen for information and enjoyment
	Learning Goal 2:	Speak to convey meaning and communicate with others
Self and Social Awareness	Learning Goal 1:	Develop an awareness of personal identity
Discovery of the world	Learning Goal 1:	Show an interest in the world they live in
	Learning Goal 2:	Develop a positive attitude towards the world around them

Lesson objectives:

Children will:

1. Enjoy and listen to the story – ‘An adventure in our City in a Garden’.
2. Participate in a discussion related to the story.

Learning disposition:

1. Reflectiveness:

What to prepare:

- NParks’ Snap Card Game
- ‘An adventure in a City in a Garden’ book by Hui Ling Chua, published by NParks
- Puppet
- Sorting Chart
- 3 bottles (each contain soil, water, air)

What to do:

Tuning In:

1. Gather the children to sit on the floor.
2. Use a soft voice and let the puppet introduce itself to the children e.g. “Hi, do you know me? I am Owen. What is your name?”
3. Using the puppet, encourage the children to talk about their experiences at gardens/parks/nature reserves.

Questions for discussion:

- Have you ever been to a garden/park/nature reserve?
- Is there a park connector near your home?
- Did you like the park? Why?
- What animals or plants can you see at the park?

Lesson Development:

1. Teachers will introduce the book – “An adventure in a City in a Garden”, the author and illustrator to the children.
2. Encourage the children to talk about the illustrations on the cover page and ask the children to predict what the story is about.
3. Read the book to the children and ask questions to stimulate their thinking.

Questions for discussion:

- What animals did Kaysee and Sunny see during their adventure?
- What did Kaysee do when the caterpillar fell on Sunny’s head?
- Why do you think Kaysee did what he did?
- What should we do if we encounter animals in the park?
- How can we help to maintain our relationship with animals in Singapore?

Closure:

Teacher will encourage the children to recall and name the animals that are found in the storybook. The children will attempt to classify them into land, water and air animals using the sorting chart.

Water

Air

Land

Lesson 4: Animal Actions

Learning areas	Learning Goals	
Language and Literacy	Learning Goal 1:	Speak to convey meaning and communicate with others
Self and Social Awareness	Learning Goal 1:	Develop an awareness of personal identity
Aesthetic and Creative Expression	Learning Goal 1:	Enjoy art, music and movement activities
	Learning Goal 2:	Create art, music and movement using experimentation and imagination
	Learning Goal 3:	Share ideas and feelings about art, music and movement

Lesson objectives:

Children will:

1. Create movements using their creativity in response to music played.
2. Talk about what they like about their experience in making new movements.

Learning disposition:

1. Inventiveness:
 - Strategy: Stimulate their imagination by demonstrating the movement of an animal.

What to prepare:

- NParks' Picture Word Cards
- Mystery box
- Song Chart: Animal Action!

What to do:

Tuning In:

1. Gather the children to sit on the floor.
2. Teachers will show the animal picture word card to the children and ask them some questions:

Questions for discussion:

- Do you know this animal?
- How do you think this animal moves and what noises does it make?

Lesson Development:

1. Introduce the song – “Animal Action!” to the children and encourage them to sing along.
2. Teachers will show the mystery box to the children and inform them that they will take turns to draw a picture word card.
3. Encourage the children to think of the animal movements.
 - How do you think this animal moves and what noises does it make?
 - Can you show me?
4. Get the children to perform the movements of animals while singing the song.

Closure:

After the activity, gather the children to sit in a circle and ask them to share about the movements they have created.

Song Chart:

Animal Action!



Animal action is so much fun!

Animal action, woo hoo yeah!

Animal action is so much fun!

Animal action, move like a



_____.

Lesson 5: Counting Animals

Learning areas	Learning Goals	
Numeracy	Learning Goal 1:	Recognise and use simple relationships and patterns
	Learning Goal 2:	Use numbers in daily experiences
Aesthetic and Creative Expression	Learning Goal 1:	Enjoy art and music and movement activities
	Learning Goal 2:	Express ideas and feelings through art and music and movement

Lesson objectives:

Children will:

1. Identify some of Singapore’s native animals
2. Recognise numbers in numeral forms
3. Count with one to one correspondence from 1 to 10

Learning disposition:

1. Perseverance:
 - Strategy: Encourage one another when they face challenges. Teachers can praise the children or use encouragement words such as “I know you can do it!”

What to prepare:

- NParks’ Animal and Numbers Poster
- Song Chart: Ten Little Pangolins
- Sorting Template
- Animal Cut-outs

What to do:

Tuning In:

1. Gather the children to sit on the floor.
2. Sing the song, “10 little _____”.
3. Teacher can get children to recall some native animals of Singapore and replace the blanks with the name of these native animals.
4. Provide the children with the animal poster.

Lesson Development:

1. Show the children the number poster and count the numbers of animals with them.
2. Inform the children that some of the animals in the animals chart have gone into hiding in their classroom and they will have to look for them around the classroom.
3. After the search, the children will gather together on the floor.
4. Get the children to sort the animals according to the same picture into the sorting template provided.
5. Invite the children to count the number of animals and look for the number card pasted on the board.
6. Place the number card together with the corresponding picture of the same number of animals.

Closure:

The children will be divided into three groups. They will collaborate with each other to create a classroom number book using the pictures of the native animals. The children will look at the number found on the page and paste the correct animal picture on it. Display the number book in the class for the children to browse during their free time.

Song Chart:

Ten little Pangolins



One little, two little,
three little Pangolins.

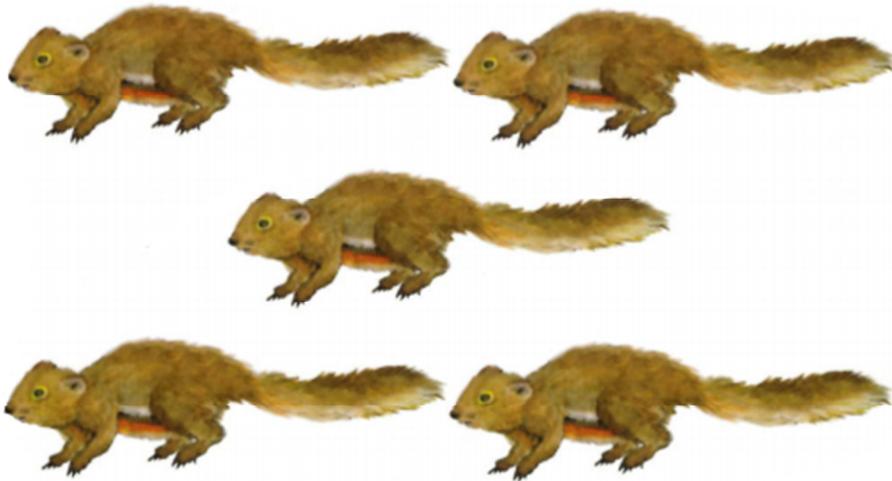
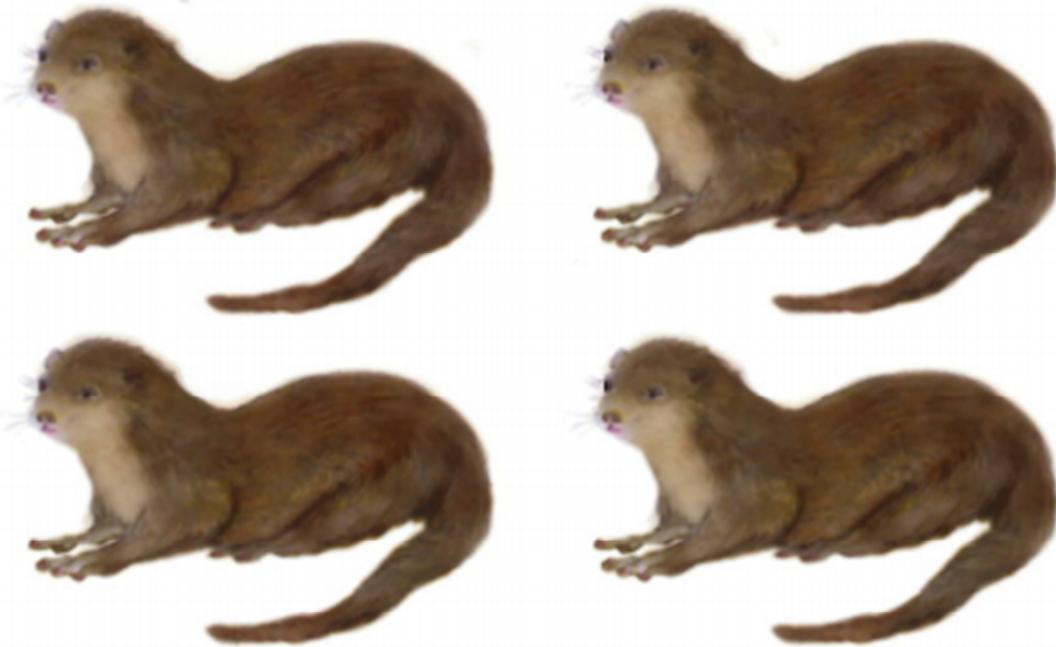
Four little, five little,
six little Pangolins.

Seven little, eight little,
nine little Pangolins.

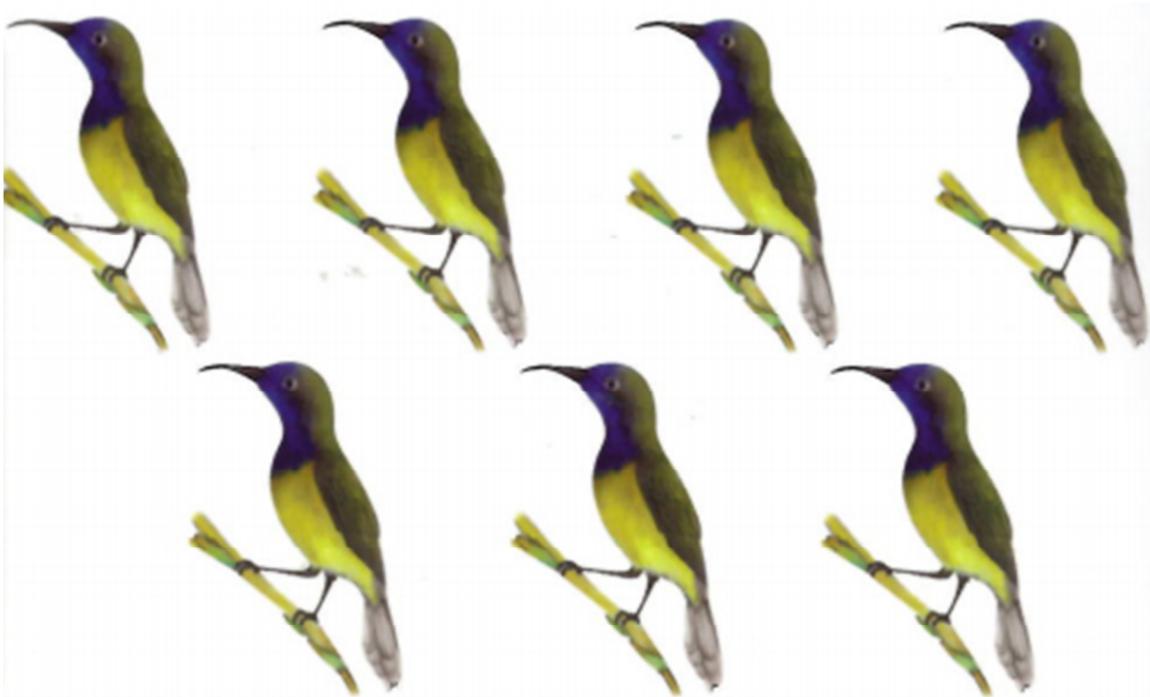
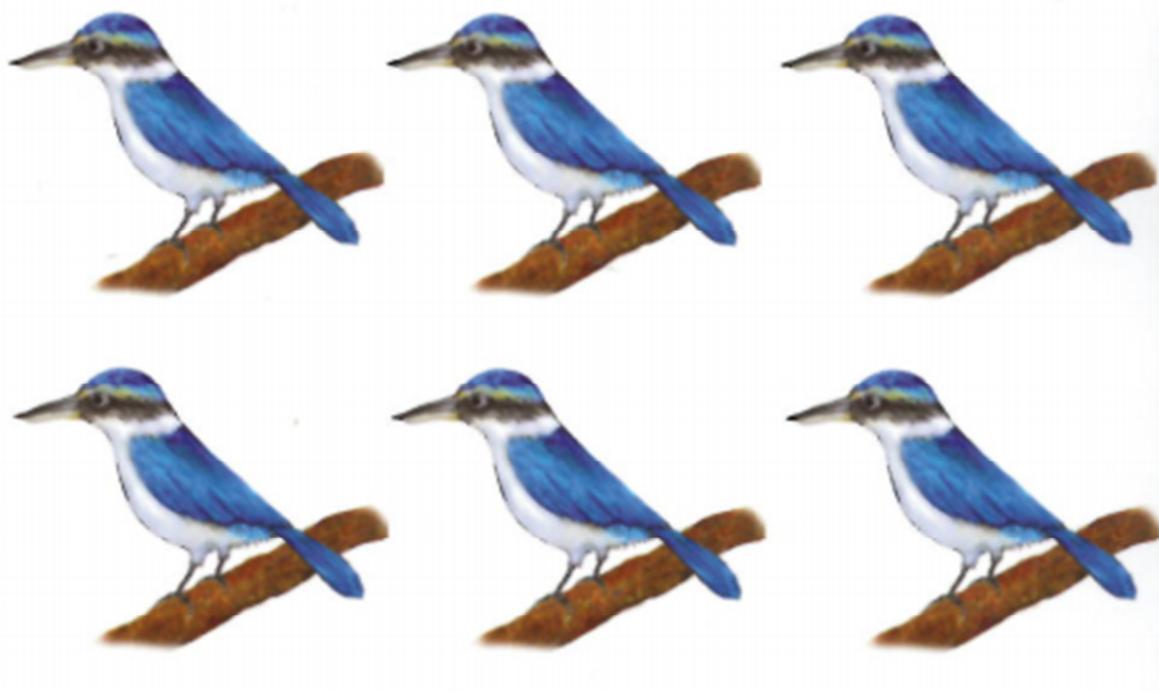
Ten little Pangolins.

Animal cut outs:



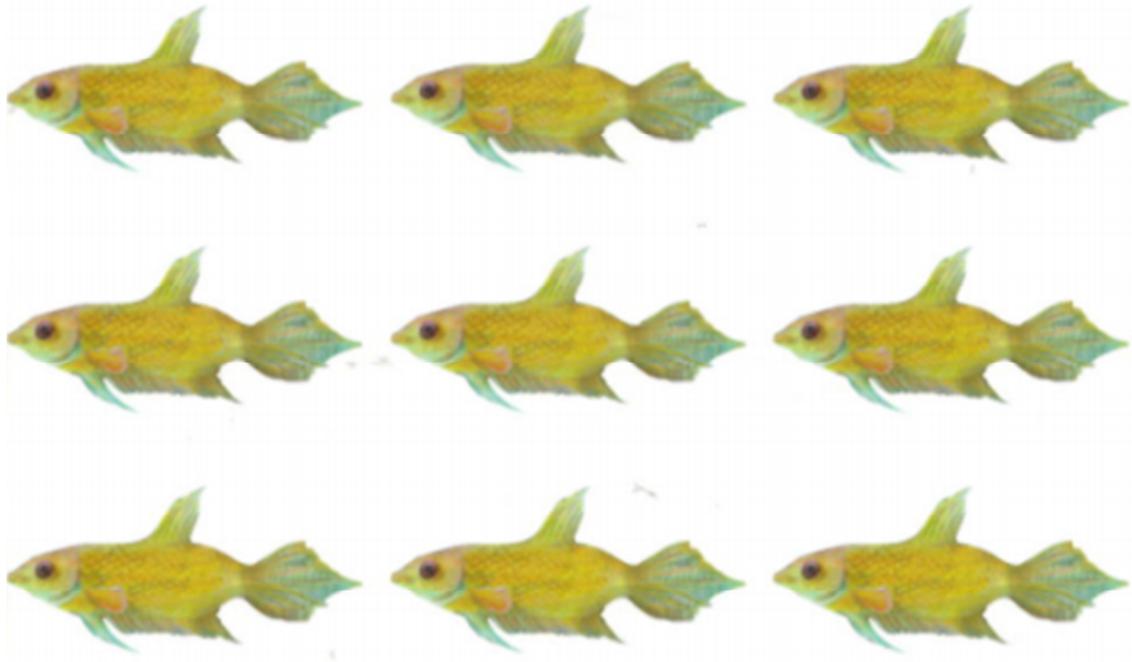


Nursery – City in a Garden

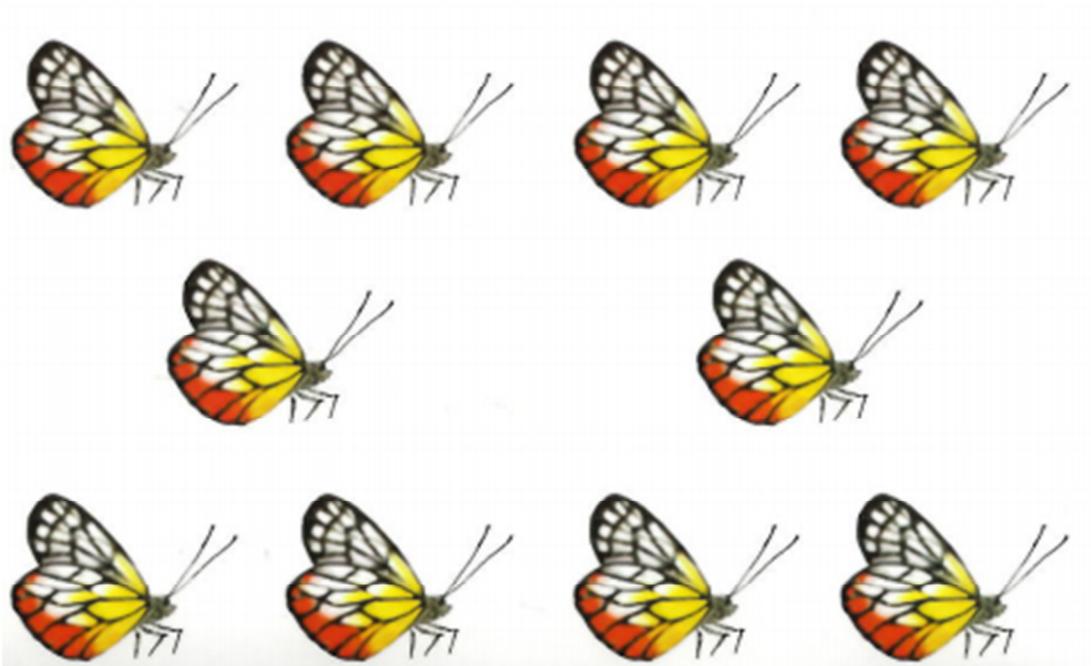


This lesson plan was developed by early childhood educators from My First Skool (Block 528, Hougang Avenue 6) using the NParks' Pre-school Educational Resource Package on Singapore, a City in a Garden, and its Biodiversity.

Nursery – City in a Garden



Nursery – City in a Garden



Template for sorting:



Number cards:

1

One

2

Two

3

Three

4

Four

5

Five

6

Six

7

Seven

8

Eight

9

Nine

10

Ten

Lesson 6: Animal Relay

Learning areas	Learning Goals	
Motor Skills Development	Learning Goal 1:	Enjoy through participation in a variety of physical activities
	Learning Goal 2:	Demonstrate control, coordination and balance in gross motor tasks
Language and Literacy	Learning Goal 1:	Speak to convey meaning and communicate with others
Social and Emotional Development	Learning Goal 1:	Develop an awareness of personal identity
	Learning Goal 2:	Communicate, interact and build relationships with others

Lesson objectives:

Children will:

1. Use locomotor skills (e.g. walking, running, jumping) to move from place to place with balance and control
2. Create movements using their creativity to imitate the movements of the animals

Learning disposition:

1. Perseverance:
 - Strategy: Encourage one another when they face challenges. Teachers can praise the children or use encouragement words such as “I know you can do it!”

What to prepare:

- NParks’ Picture Word Cards
- Sport equipment

What to do:

Tuning In:

1. Gather the children to sit on the floor.
2. Inform the children that they will be going for an outdoor lesson.
3. Recap some animal movements from the previous lesson.

4. Questions to facilitate:

- What animals did we imitate the last lesson?
- Can you jump like an Asian Toad?
- Can you balance yourself like a Purple Heron?

Lesson Development:

1. Teachers will demonstrate and lead the children in warming up exercises prior to the lesson.
2. Show children the animal pictures word cards and get them to suggest movements of the animals.
3. Place each picture word card at the front segment of the relay.
4. Inform the children that they will have to complete the animal relay by performing the animal actions.
5. Teacher will demonstrate to the children the gross motor skills which will incorporate animal movements.
6. Animal Relay Rules:
 - Children will be divided into two groups.
 - The first member from each team will start running to the first segment.
 - Children will look at the picture word card and perform the actions of the animal on the card.
 - They will then continue to the next card in the next hoop, until they reach the last hoop.
 - The first player will then run back and tap on the second player and the game continues.

Closure:

Gather the children to do cool-down exercises. Encourage the children to talk about their favourite segment of the relay.

Lesson 7: Fly Fly Butterfly!

Learning areas	Learning Goals	
Language and Literacy	Learning Goal 1:	Speak to convey meaning and communicate with others
Self and Social Awareness	Learning Goal 1:	Develop an awareness of personal identity
	Learning Goal 2:	Take responsibility for their actions
Discovery of the World	Learning Goal 1:	Show an interest in the world they live in
	Learning Goal 2:	Develop a positive attitude towards the world around them

Lesson objectives:

Children will:

1. Identify the four stages of a butterfly’s life cycle.
2. Learn to take care of caterpillars

Learning disposition:

1. Sense of Wonder and Curiosity
 - Strategy: Teachers can encourage this disposition by asking the children open-ended questions such as “Why/How is this so?”

What to prepare:

- ‘An adventure in a City in a Garden’ book by Hui Ling Chua, published by NParks
- Song chart: Fly, Fly, Fly The Butterfly
- Guest speaker
- Live specimens of butterflies and caterpillars provided by guest speaker
- Papers (for drawing and painting)

What to do:

Tuning In:

1. Gather the children to sit on the floor.
2. Teachers will get children to recall the butterflies that are found in the picture book.
3. Show the children the picture book and identify the butterflies.

Questions for discussion:

- Do you remember what butterflies can be found in the picture book?
 - Can you describe the butterflies?
 - Can you show me how a butterfly flies?
4. Teacher will introduce the song – “Fly, Fly, Fly The Butterfly”
 5. Children will move like a butterfly as they sing the song.

Lesson Development:

1. Teacher will inform the children that a guest speaker has been invited to introduce the different types of butterflies she reared.
2. She will explain to children how butterflies are important to Singapore’s biodiversity.
3. The guest speaker will educate children on the life cycle of a butterfly.
4. Encourage the children to ask questions.
5. The guest speaker will then show children how to take care of caterpillars if they want to rear the caterpillars at home/school.

Closure:

Teacher will show children some live specimens of butterflies. The children will describe the prints on the butterfly wings. The children will then create their butterfly prints using half-folded paper and paint.

Song Chart:

Fly, Fly, Fly The Butterfly



Fly, fly, fly the butterfly.

In the meadow it's flying high.

In the garden it's flying low.

Fly, fly, fly the butterfly.



Lesson 8: Field Trip to the Butterfly Lodge

Learning areas	Learning Goals	
Language and Literacy	Learning Goal 1:	Speak to convey meaning and communicate with others
Self and Social Awareness	Learning Goal 1:	Develop an awareness of personal identity
	Learning Goal 2:	Take responsibility for their actions
Discovery of the World	Learning Goal 1:	Show an interest in the world they live in
	Learning Goal 2:	Develop a positive attitude towards the world around them

Lesson objectives:

Children will:

1. Identify some butterflies found in Singapore
2. Make simple recordings of observations
3. Recall and talk about their experiences at the butterfly lodge

Learning disposition:

1. Sense of Wonder and Curiosity
 - Strategy: Teacher can encourage this disposition by asking children open-ended questions such as “Why/How is this so?”

What to prepare:

- Cameras
- Recording sheets
- Writing materials
- Butcher paper

What to do:

Tuning In:

1. Gather the children to sit on the floor.
2. Teachers will explain the safety rules and inform the children that they will be going to the butterfly lodge to observe the caterpillars and butterflies.

Lesson Development:

1. Teachers will divide the children into four groups.
2. Teachers will distribute the recording sheet, writing materials and a camera to each group.
3. The children will walk around the butterfly lodge to observe the caterpillars and butterflies. Children may use a camera to capture their observations as well.
4. During the trip, teacher may facilitate children's learning by asking the following questions to stimulate their thinking:
 - Can you identify some of the butterflies you see?
 - What patterns can you see on their wings?
 - Can you find the caterpillars?
 - What are the caterpillars doing?
5. Teachers may purchase a caterpillar from the butterfly lodge to provide opportunities for children to observe the growth of caterpillars.

Closure:

Teachers will do an LEA (Language Experience Approach) when the children are back in the classroom. The children will take turns to talk about their experiences at the Butterfly Lodge.

Lesson 9: Let's Observe The Caterpillars!

Learning areas	Learning Goals	
Language and Literacy	Learning Goal 1:	Speak to convey meaning and communicate with others
Self and Social Awareness	Learning Goal 1:	Develop an awareness of personal identity
	Learning Goal 2:	Take responsibility for their actions
Discovery of the World	Learning Goal 1:	Show an interest in the world they live in
	Learning Goal 2:	Develop a positive attitude towards the world around them

Lesson objectives:

Children will:

1. Make simple recordings of observations
2. Talk about the physical characteristics of a caterpillar.

Learning disposition:

1. Sense of Wonder and Curiosity:
Strategy: Encourage the children to explore and ask questions about the caterpillar.

What to prepare:

- Recording sheets
- writing materials
- Butcher paper
- Flannel board with characters
- A caterpillar

What to do:

Tuning In:

1. Gather the children to sit on the floor.
2. Teacher will tell the story 'The Very Hungry Caterpillar' using the flannel board.
3. Look back through the book and ask the children to think about how the caterpillar changes throughout the story.

Questions for discussion:

1. Who laid the egg on the leaf?
2. Can you tell me the stages that take place between the egg hatching and the butterfly?
3. Why do you think the caterpillar has to wrap itself in a cocoon?

Lesson Development:

1. Inform the children that you have brought an animal into the classroom.
2. Cover the caterpillar and get the children to guess while giving them hints such as “This animal has 6 legs.”, “It likes to eat leaves.” or “It crawls.”
3. Show children the caterpillar and ask if they have guessed it correctly.
4. Introduce the caterpillar to the children and talk about its physical characteristics e.g. body, legs etc.
5. Provide children with investigatory tools such as magnifying glasses to observe the caterpillar.
6. Record their responses on the board.
7. Inform the children that they will be recording the growth of the caterpillar. (This lesson can take up to 2 weeks to complete.)
8. At the end of the observation, compile their recordings into “Our Caterpillar Report”.

Closure:

The children will take turns to observe the caterpillars with magnifying glasses and record their observations on the paper. The children will use a sentence to describe the caterpillar.

Lesson 10: A Trip to Sungei Buloh Wetland Reserve

Learning areas	Learning Goals	
Language and Literacy	Learning Goal 1:	Speak to convey meaning and communicate with others
Self and Social Awareness	Learning Goal 1:	Develop an awareness of personal identity
	Learning Goal 2:	Take responsibility for their actions
Discovery of the World	Learning Goal 1:	Show an interest in the world they live in
	Learning Goal 2:	Develop a positive attitude towards the world around them

Lesson objectives:

Children will:

1. Make simple recordings of observations
2. Identify some of Singapore’s native animals

Learning disposition:

1. Sense of Wonder and Curiosity
 - Strategy: Teacher can encourage this disposition by asking children open-ended questions such as “Why/How is this so?”

What to prepare:

- Cameras
- Recording sheets and writing materials
- Butcher paper
- Song Chart: We’re Going to the Park!

What to do:

Tuning In:

1. Gather the children to sit on the floor.
2. Sing the song “We’re Going to the Park!”
3. Teacher will explain the safety rules and inform the children that they will be visiting the Sungei Buloh Wetland Reserve.

Lesson Development:

Children will visit the Sungei Buloh Wetland Reserve. They will be provided cameras and paper to document interesting animals and plants they see in the nature reserve.

Closure:

Teacher will do an LEA (Language Experience Approach) when the children are back in the classroom. Children will take turns to talk about their experiences at the Sungei Buloh Wetland Reserve.

Song Chart:

We're Going To The Park!

Teacher's taking us to the park tomorrow,
park tomorrow, park tomorrow
Teacher's taking us to the park tomorrow
We may stay all day



Chorus:

We're going to the park, park, park.
Otters can bark, bark, bark.

Love our plants! Don't pluck, pluck, pluck.
We're going to the park, park, park.



See the purple heron stretching by the water,
Looking for dinner, near pond skater
Dragonflies and birds they fly about each day
Mosquitoes stay away (Chorus)

Look! The Asian Toad has bumps all over it,
Forest fighting fish, with fins go swish swish
Hear the tailorbird go cheep cheep cheep cheep,
It's on the Tembusu tree! (Chorus)



Lesson 11: Plants Around Us!

Learning areas	Learning Goals	
Language and Literacy	Learning Goal 1:	Speak to convey meaning and communicate with others
Self and Social Awareness	Learning Goal 1:	Develop an awareness of personal identity
	Learning Goal 2:	Take responsibility for their actions
	Learning Goal 3:	Communicate, interact and build relationships with others
Discovery of the World	Learning Goal 1:	Show an interest in the world they live in
	Learning Goal 2:	Develop a positive attitude towards the world around them

Lesson objectives:

Children will

1. Identify different types of plants found in Singapore.
2. Show care and respect for the living things and the environment.
3. Develop an awareness of the impact of human actions on themselves, others and the world they live in.

Learning disposition:

1. Engagement:
 - Strategy: Encourage the children by acknowledging their efforts such as “Well done, you found your pair!” or “You did a great job describing the animal!” (LD4).

What to prepare:

- NParks’ ‘Pecky the Pangolin Explores Singapore, a City in a Garden’ DVD
- NParks’ Picture Word Cards (Teacher’s note: To use photos/ prints of the picture word cards to create puzzle pieces)
- Pictures of Singapore’s Gardens/Parks
- Feely bag
- Song chart
- Drawing materials

What to do:

Tuning In:

1. Gather the children in a semi-circle.
2. Show the children a picture of a garden/ park.
3. Encourage the children to talk about the picture.

Questions for discussion:

- What can you see in the garden/park?
- What kind of plants can you find in the garden/park?
- Why are trees important in the garden/park?

Lesson Development:

1. Teachers will gather the children on the floor and inform them that they will be watching a short video (NParks' Video 2: Peeky the Pangolin Explores Singapore's Trees.)
2. Prior to the video, ask children some of these questions:
 - Can you name the different parts of a tree?
 - What kind of trees do you like?
 - Where can you find lots of trees in Singapore?
 - How are trees important to animals?
 - Why are trees important for humans?
3. After the video, the children will discuss what they saw in the video.

Questions for discussion:

- Why did Peeky the Pangolin say a tree is like an umbrella?
- What do the fruits of Meranti tree look like?
- Why is the Gelam tree important to the Atlas Moth?
- How can we look after our trees in Singapore?

Closure:

Teachers will divide the children into groups of two. Each group will be given a set of puzzles. The children will work cooperatively to fix the puzzle together.