



Changing Minds

Conserving the Javan palm civit

(Paradoxurus musanga javanicus)

Welcome!

Dear Educator,

Welcome to the Little Fireface Project's *Changing Minds: Conserving the Javan palm civet (Paradoxurus musanga javanicus)* education programme.

The *Changing Minds* programme includes six civet stories and supplementary activities for children aged 8-12. The children will learn about the Javan palm civet in terms of its ecology, behaviours, importance to the forest and farmers, and conservation challenges.

For more information or further resources, visit Nocturama.org or email info@littlefireface.org

We hope you enjoy this pack!

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Programme goals and objectives

Goal:

The goal of this programme is for children to learn about the Javan palm civet in an engaging and interactive environment and develop an interest and commitment to protecting the species.

Objectives:

The objective of the six civet stories and supplementary activities is to improve children's knowledge, positive attitudes, and pro-environmental skills towards civets.

- **Knowledge:** To build on children's current knowledge of civets including their ecology, behaviours, ecological importance, and conservation challenges they face. As well as gain an understanding of how human behaviours can positively and negatively impact civets.
- **Attitudes:** To build on children's positive attitudes and emotions towards civets.
- **Skills:** To build on children's problem solving and decision-making skills. To improve their communication and teamwork skills.

Background information: Indonesia's civets

The Javan palm civet is a member of the family **Viverridae**. The Viverridae family is made up of **23** small-medium sized mammals, that can be found across south-east Asia, Africa, and even in Europe.

There are **10** species from the family Viverridae in Indonesia, **9** of these are civets; the other is the binturong.



Hose's palm civet (*Diplogale hosei*):
Vulnerable



Masked palm civet (*Paguma larvata*):
Least Concern



Banded palm civet (*Hemigalus derbyanus*): **Near Threatened**



Asian/Javan palm civet (*Paradoxurus musanga javanicus*): **Not Assessed**



Sulawesi palm civet (*Macrogalidia musschenbroekii*): **Vulnerable**

Indonesia's civets



Malayan civet (*Viverra zibellina*):
Least Concern



Otter civet (*Cynogale bennettii*):
Endangered



Small-toothed palm civet (*Arctogalidia trivirgata*): **Least Concern**



Small Indian civet (*Viverricula indica*):
Least Concern



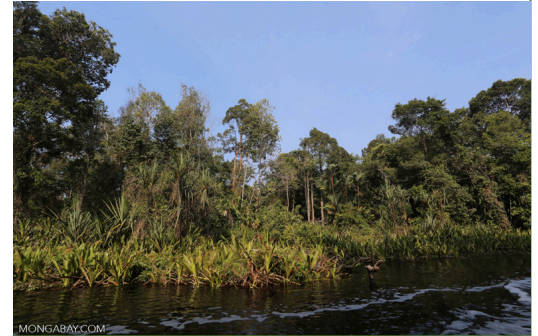
Binturong (*Arctictis binturong*): **Vulnerable**

Indonesia's civets

The binturong and 9 civet species can be found in a wide range of **habitats**. Many of these habitats have been disturbed by humans, but the species have found ways to live alongside humans.



Freshwater swamp forest



Peat swamp forest



Towns and villages



Evergreen forests



Logged forests



Grasslands



Palm oil plantations



Tropical rainforests

HABITATS!

Indonesia's civets

Ecology

Most of the species are **omnivorous**, eating a wide variety of plants and animals including fruits, (mangos, coffee, bananas, sugar cane), rats, mice, insects, and molluscs. The otter civet is mainly **carnivorous**, feeding on other animals including fish, molluscs, and crabs. Whilst the small-toothed palm civet is mainly **frugivorous**, feeding on fruits, particularly figs.

Some species including the masked palm civet and small Indian civet, are **terrestrial**, meaning they spend most of their life on the ground. Other species such as the small-toothed palm civet and binturong are **arboreal**, meaning they live mostly in the trees.

Because fruit makes up a large proportion of the binturong and many civets diets', they play a very important **ecological role** as **seed dispersers**. Seed dispersal is the spread of seeds away from the parent plant. Plants rely on different methods including the wind, water and animals to help spread their seeds. Animals can spread seeds by eating a plant's fruits and excreting the seeds.

Seed dispersal is important for a plant's survival. If plants grow too closely together, they must compete for space, light and water. Plant species that benefit from the binturong and civets include the **sugar palm** (*Arenga pinnata*), **figus** (*Ficus variegata*), and **robusta coffee** (*Coffea robusta*).

Indonesia's civets

Behaviour

Civets and the binturong are mainly **solitary** animals, spending most of their life alone except for when individuals briefly come together to mate, or females raise their offspring.

Not a lot is known about the mating and **gestation cycle** of civets or the binturong. It has been suggested that some species including the Asian palm civets and small-toothed civet breed throughout the year, whereas others including the masked palm civet have two breeding seasons per year. Gestation periods vary between **60-90 days** with females having on average **3-4 young per litter**.

Most species are **nocturnal**, sleeping during the day and active at night. But some species, including the Malayan civet are **catheMERal**, which means they can be active during the day or night.

All species have a **perineal gland** located near the base of their tail. This gland produces a scent which provides information on the health, status, and reproductive receptiveness of an individual. The scent is also used to mark **territories**. Studies have shown that the Asian palm civets can identify familiar and unfamiliar individuals and their sex (male or female) by the perineal gland scent.

Indonesia's civets

Conservation challenges

Wildlife trade: All the species have been found in Indonesian wildlife markets. Most individuals found in these markets have been **taken from the wild** at a young age. They are kept in small, overcrowded cages with limited food or water. Many die from malnutrition and stress.

The binturong, otter civet, and Sulawesi palm civet are **protected under Indonesian law** which makes it **illegal** to trade them. It is legal to trade the other species however, each species has a **set quota and it is illegal to go above this**. These rules are often broken due to a **lack of reinforcement and punishment**.

Pets: Many of the species including the Asian palm civets, binturong and small-toothed palm civet have become increasingly popular as pets, with owners forming civet-lover (**musang lover**) clubs. However, many of the animals are kept in poor conditions, forced to stay awake during the day and fed incorrect foods.

Coffee production: Civets are used to create the worlds most expensive coffee. A single cup can be sold for up to **Rp 880000**. It is made by feeding civets coffee cherries which they then partially digest and excrete. The most common species used in this industry are the Asian palm civets and the binturong. The species are often kept in small metal cages and forcibly fed coffee cherries. However both species need variety in their diet, and therefore often die of malnutrition or disease.

Hunted: All the species are threatened by hunting. Animals are hunted for their meat which is sold in Indonesian markets and around the world. Species including the Asian palm civets and small Indian civet are also considered as pests because they will eat small livestock. This often results in **retaliatory killings** by farmers.



Asian palm civets in a wildlife market



Asian palm civet sold as a pet



Civet coffee for sale

The Javan palm civet

Up until **2010** it was believed that there was a **single group** of Asian palm civets called *Paradoxurus hermaphroditus*, however this has been reassessed and now Asian palm civet populations have been split into **two groups**.

1. **Asian palm civet (*Paradoxurus musanga*)** – found in **Sumatra, Java and Bali**. The **Javan palm civet (*Paradoxurus musanga javanicus*)** is in this group because it is a **sub-species** of the Asian palm civet.
2. **Asian palm/common palm civet (*Paradoxurus hermaphroditus*)** – found across the **rest of Asia**.

This project will focus on the Javan palm civet. The Javan palm civet is **nocturnal, solitary** and mainly **arboreal** although will often come down to the ground in search of food.

The species has not yet been given an IUCN status. Whereas the *Paradoxurus hermaphroditus* has a **Least Concern** status. The Javan palm civet is **endemic** to Java which means it can only be found in Java. It is expected that due to its smaller geographic range, *Paradoxurus musanga* will be given a **Near Threatened** status. Currently it is not known what status the Javan palm civet will be given.



Asian palm civet (*Paradoxurus hermaphroditus*): **Least Concern**



Asian palm civet (*Paradoxurus musanga*): **Near Threatened?**

The Javan palm civet



Orange: Resident population of *Paradoxurus hermaphroditus*

Purple = Introduced population of *Paradoxurus hermaphroditus*

Red outline = Distribution of *Paradoxurus musanga*

Green outline = Distribution of Javan palm civet (*Paradoxurus musanga javanicus*)

Assessment methods

The programme contains two types of assessments.

- 1. Engagement scoring:** This will take place during the programme and will give you the opportunity to see how children are responding to each activity.

- 2. Essay stories:** This will take place before and after the programme to give you the opportunity to see whether the children's knowledge, attitudes, and skills have improved as a result of taking part in the programme.

Assessment methods: Engagement scoring

Two types of engagement assessments will be performed. They will measure two different components of the children's engagement. The first will involve you scoring the children's behaviours during each activity using the engagement scoring table. The second will involve the children filling in a survey after each activity which will ask them about how they felt during each of the activities.

1) Behavioural engagement: This will look at the children's level of focus and participation during each activity.

Instructions:

Every 10 minutes for each activity, you, or another observer will score each child from 1-5 on how engaged they are based on the engagement scoring table.

To make it easier have the children wear name tags so that you can match the score with the child.

The engagement scoring table

Engagement score	Behaviour
1	Student has left the classroom
2	Student is moving around the classroom and not focusing on the activity
3	Student is sitting still and not focusing on the activity
4	Student is focusing on the activity but not actively participating
5	Student is focusing on the activity and actively participating

Example of engagement scoring sheet

Activity 1.	Observation time (every 10 minutes)						
Name	12:00	12:10	12:20	12:30	12:40	12:50	13:00
Name: 1	1	1	2	2	2	1	1
Name: 2	2	2	2	3	3	3	3
Name: 3	2	3	3	3	4	3	3

Assessment methods: Engagement scoring

2) Emotional engagement: This will look at the children's positive and negative emotional responses to each activity.

Instructions:

After each activity, the children will be asked to fill in an engagement survey. This will include six statements which the children will score using a 5-point scale. The children should complete the survey independently.

5-point scale:

1 = strongly disagree

2 = disagree

3 = neither agree or disagree

4 = agree

5 = strongly agree

Survey:

I liked this activity

I felt happy during this activity

I felt stressed during this activity

I felt bored during this activity

This activity was easy

I want to do this activity again

Resources: Paper, pencils

Time: 5 minutes

Assessment methods: Essay stories

It is important to assess the children's knowledge and attitudes towards the Javan palm civet and how these may change after they have participated in this programme.

Instructions:

- This will be done by having the children write a story to the following question: “What do you know about the Javan palm civet?”
- To help the children, ask them to think about what a civet looks like, where it lives, what it eats, threats they face, and what do people think of them?
- They will complete this task before and after taking part in the programme.
- The children will work on their story independently.

Resources: paper and pencils

Time: 30 minutes

How to assess children's knowledge from their written stories

To assess the children's knowledge of civets from their stories you can use the **cognitive domain of Bloom's taxonomy**.

The cognitive domain of Bloom's Taxonomy looks at the development of children's knowledge and skills. It is made up of six different levels of learning. Each level includes a set of skills and behaviours that a child needs to achieve in order to demonstrate their knowledge/learning at that level.

The levels increase in their complexity and require children to demonstrate more advanced skills and behaviours.

• The six levels of the cognitive domain are:

6. **Create** (produce new ideas/stories)
5. **Evaluate** (justify or critique information)
4. **Analyse** (make connections between ideas)
3. **Apply** (use information in new scenarios)
2. **Understand** (explain ideas or concepts)
1. **Remember** (recognise and recall information)



Increase in complexity

How to assess children's knowledge from their written stories

For the children's stories you can look at which of Bloom's cognitive levels the children demonstrate leaning in based on what they have included in their stories.

CREATE

Create new stories using ideas/concepts relating to civet ecology, physiology and conservation.

EVALUATE

Included information on ways to protect civets.

ANALYSE

Connected information about civet ecology in new ways to create the story.

APPLY

Included words directly relevant to civet biology that were not directly from the civet stories/programme

UNDERSTAND

Included words that were not directly from the civet stories/programme.

REMEMBER

Included words directly found in the civet stories/programme.

How to assess children's attitudes and emotions from their stories

To assess children's attitudes and emotions towards civets from their stories you can use the **affective domain of Bloom's Taxonomy**.

The affective domain of Bloom's Taxonomy looks at children's feelings, beliefs, attitudes, and values towards something. The affective domain has five levels of learning. Each level includes a set of skills and behaviours that a child needs to achieve in order to demonstrate their attitudes/emotions/learning at that level.

The levels increase in their complexity and require children to demonstrate more advance skills and behaviours.

- The five levels of the affective domain are:

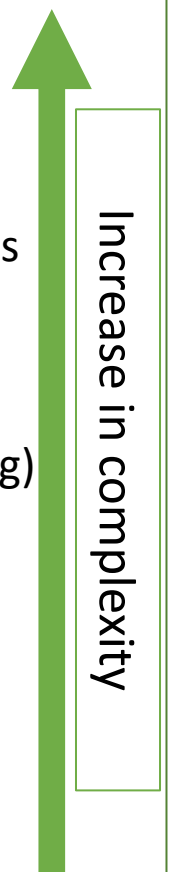
5. **Internalisation:** (demonstrate a behaviour which reflects an attitude/belief)

4. **Organization** (compare and prioritise multiple beliefs/attitudes towards something)

3. **Valuing** (show evidence of a belief/attitude towards something)

2. **Responding** (show an interest/willingness to respond to something/take part in something)

1. **Receiving** (be aware of things and willing to listen to them)



How to assess children's attitudes and emotions from their stories

For the children's stories you can look at which of Bloom's affective levels the children demonstrate leaning in based on what they have included in their stories.

INTERNALISATION

Written about the behaviours they do or intend to do based on their attitudes
"Civets are very shy, whenever I see one, I am very quiet so that I don't scare it"

ORGANISATION

Have considered different attitudes people have towards civets, and stated their view based on these **"Some people think civets are pests, but I like them, they help the forest, so I want to protect them"**

VALUING

Have written about their attitudes towards civets **"Civets are scary, they could attack you" or "I like civets"**

RESPONDING

Have participated or show an interest in learning about civets
"I want to learn more about civets"

RECEIVING

Are aware of civets
"Some people like to keep civets as pets"

Reading the stories

There are six different civet stories. Each story includes a colouring in sheet and an activity based on the message of that story.

Instructions

- It is up to you whether you read the stories aloud or have the children take it in turns to read.
- Each story has a civet character depicted in pictures. Introduce the children first to the characters.
- Make sure to read at a steady pace, be aware that children may ask you to repeat sentences.
- Encourage the children to predict what might happen next in the story.
- Ask questions to create discussions, such as: have you ever seen a civet before, or why might the civet fear humans?
- The reading and colouring in activity should take 30 minutes.

Story	Message of the story	Concepts included in the story
The civet who helped the coffee farmer	Civets are very important to coffee farmers, they help their crops grow through seed dispersal and help them produce civet coffee.	<ul style="list-style-type: none"> - Ecological importance: seed dispersal - Human-wildlife interactions - Ecology
The civet who lost his mother	Civets can communicate with one another through scent marking.	<ul style="list-style-type: none"> - Behaviour - Physiology
The civets from different homes	Civets have many adaptations which allow them to live in lots of different habitats.	<ul style="list-style-type: none"> - Adaptation - Human-wildlife interactions
The civet who made a friend	There are lots of misconceptions surrounding civets and how they behave around people. In fact they are very shy animals.	<ul style="list-style-type: none"> - Behaviour - Human-wildlife interactions - Conservation challenges
The civet who was saved	Civets do not do well in captivity. They belong in the wild.	<ul style="list-style-type: none"> - Ecology - Behaviour - Human-wildlife interactions - Conservation challenges
The civet who had a dinner party	All civets are part of the family Viverridae. They are all omnivorous and carry out seed dispersal.	<ul style="list-style-type: none"> - Ecology - Taxonomy - Ecological importance: seed dispersal

Story 1: Colouring in sheet



Story 1: Seed growing

Goal: To learn about the importance of seed dispersers like civets.

Objectives: To understand how seed dispersal helps plants grow.

To develop their identification, classification, interpretation, and comparison skills by comparing the two groups of seeds and suggesting reasons for the differences.

To acknowledge the ecological importance of civets and express a commitment to protecting them.

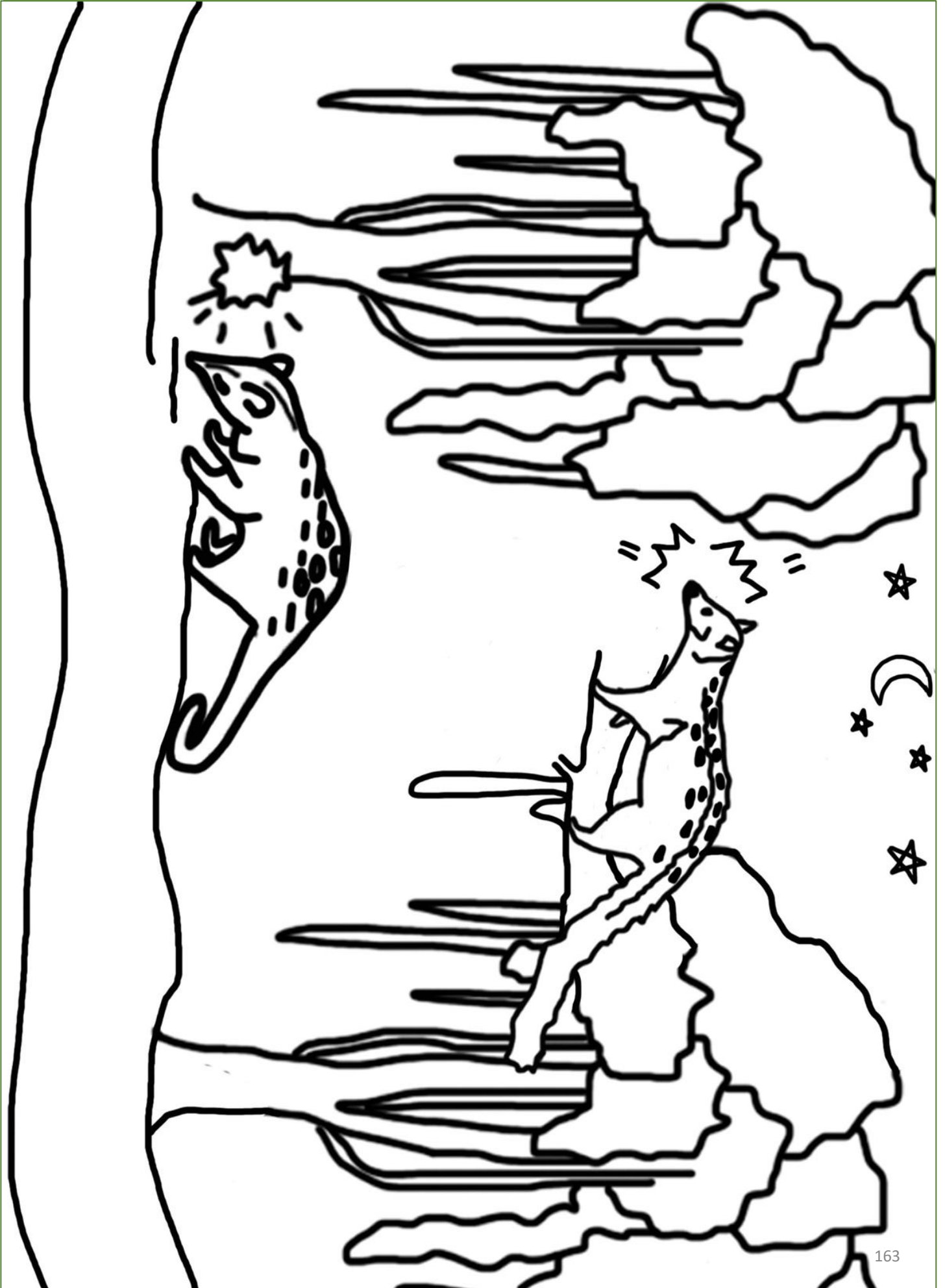
Instructions:

- The children will each be given two seeds to plant.
- Fill two seed trays with compost. In one tray the children will spread the seeds out. In the other tray the children will plant all the seeds clustered together.
- Sprinkle water over both trays then cover them and leave them in a warm place.
- After a week ask the children to compare the two trays (the tray with the spread-out seeds will likely have germinated (seedlings appear) first and have more/taller seedlings).
- Once the seedlings have germinated have the children replant the seedlings into pots. Ask the children to bring in old plastic bottles or yoghurt pots from home which you can reuse as pots for the seeds.
- Keep the seedlings in the shade until they become little plants. They can then be placed somewhere sunny.
- Explain to the children that without animals like civets who spread seeds, new plants struggle to grow. Civets help forests grow!

Resources: seeds (organic coffee seeds or persimmon seeds), x2 trays, compost, plastic bottles.

Time: 1 hour

Story 2: Colouring in sheet



Story 2: The smell trail

Goal : To learn about scent marking and communication.

Objective: To use their sense of smell to acknowledge and relate to how civets use their sense of smell to identify familiar and unfamiliar civets.

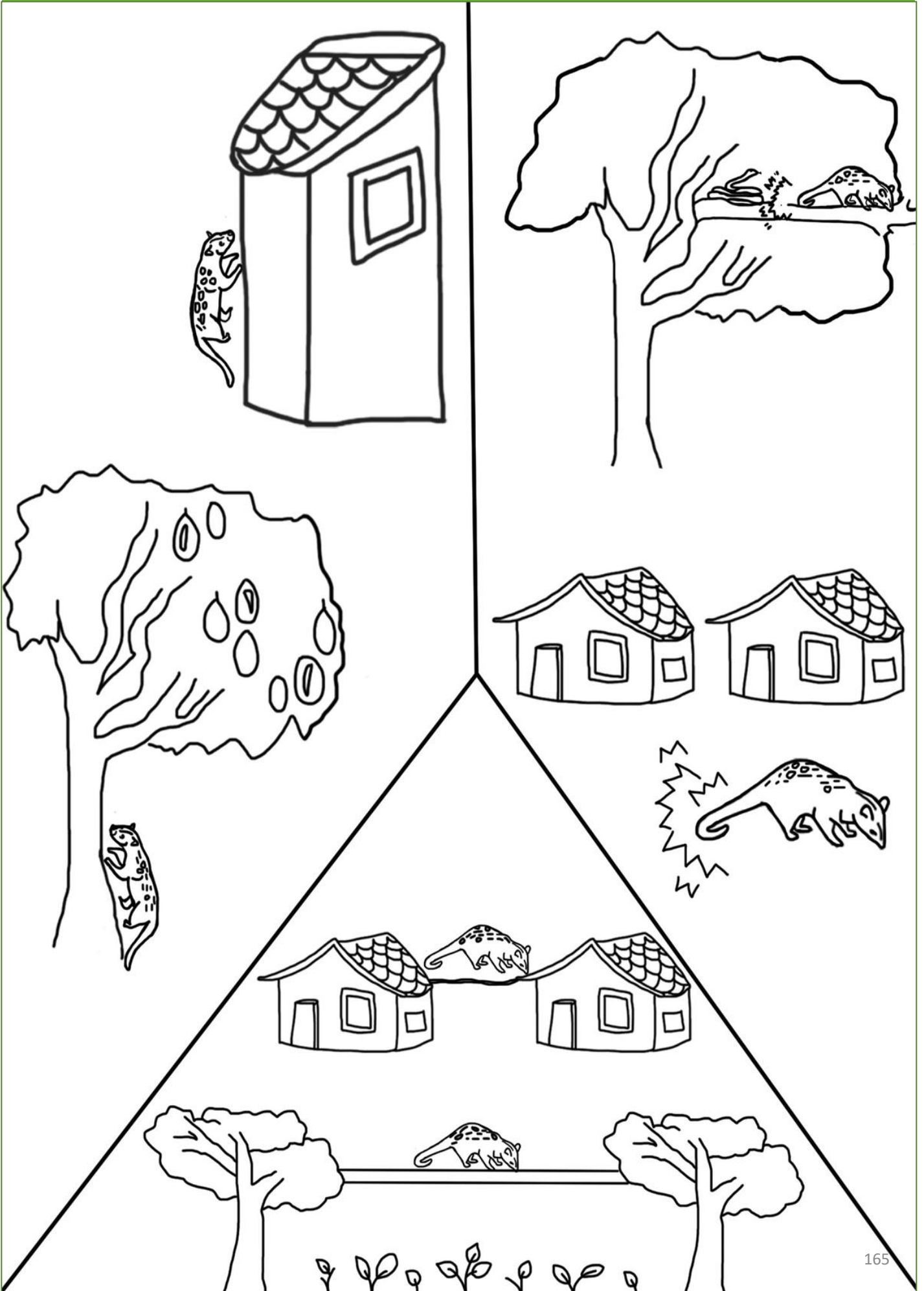
Instructions:

- The week before the children will need to be told to bring in a spare t-shirt from home.
- The teacher will need to map out a route on the ground using rope or tape that has several junctions.
- The children will work in teams, each child will take it in turns to be blindfolded while the other students give instructions on where to walk.
- Each time a child reaches a junction they will be asked to smell two t-shirts, one of which will be their one from home (represents the familiar scent) and the other from another child (represents the un-familiar scent).
- Each t-shirt will represent a different direction the children can take at the junction.
- The child will be asked to tell the team which scent is familiar. Which ever scent they choose will determine which path they take
- Repeat this at each junction until they reach the end of the trail.
- Count how many times the child correctly guessed the familiar scent—did they always follow the right path of the familiar smell?
- Ask the children to discuss in their groups the ways people communicate and compare these to the civets' form of communication.

Resources: Rope or duct tape, blindfold or something children can wear to cover their eyes. A t-shirt from home.

Time scale: 1 hour

Story 3: Colouring in sheet



Story 3: Guess the Adaptation

Goal: To learn about the types of adaptations civets have in order to survive.

Objectives: To understand that just like humans, civets have certain skills that help them overcome challenges and survive. To contribute towards identifying and comparing the differences between body, process, and behavior adaptations.

Instructions:

- Put the children into groups.
- Cut out the “Scenario” and “Adaptation” cards from the adaptation worksheet and hand out a set to each group. Body adaptations are yellow, process adaptations are pink and behavior adaptations are blue.
- Ask the children in their groups to match the scenario to the adaptation that would best help them in that scenario.
- After each group has finished create a group discussion where the children explain what they matched and why, then reveal the correct answers.
- Give some examples of how humans have adapted to similar scenarios, for example: because civets are omnivores, they have different types of teeth for different types of foods (sharp teeth to bite and cut up meat and flat teeth to grind up plants). Humans are omnivores too and have sharp teeth and flat teeth (ask the children to look at their own teeth).

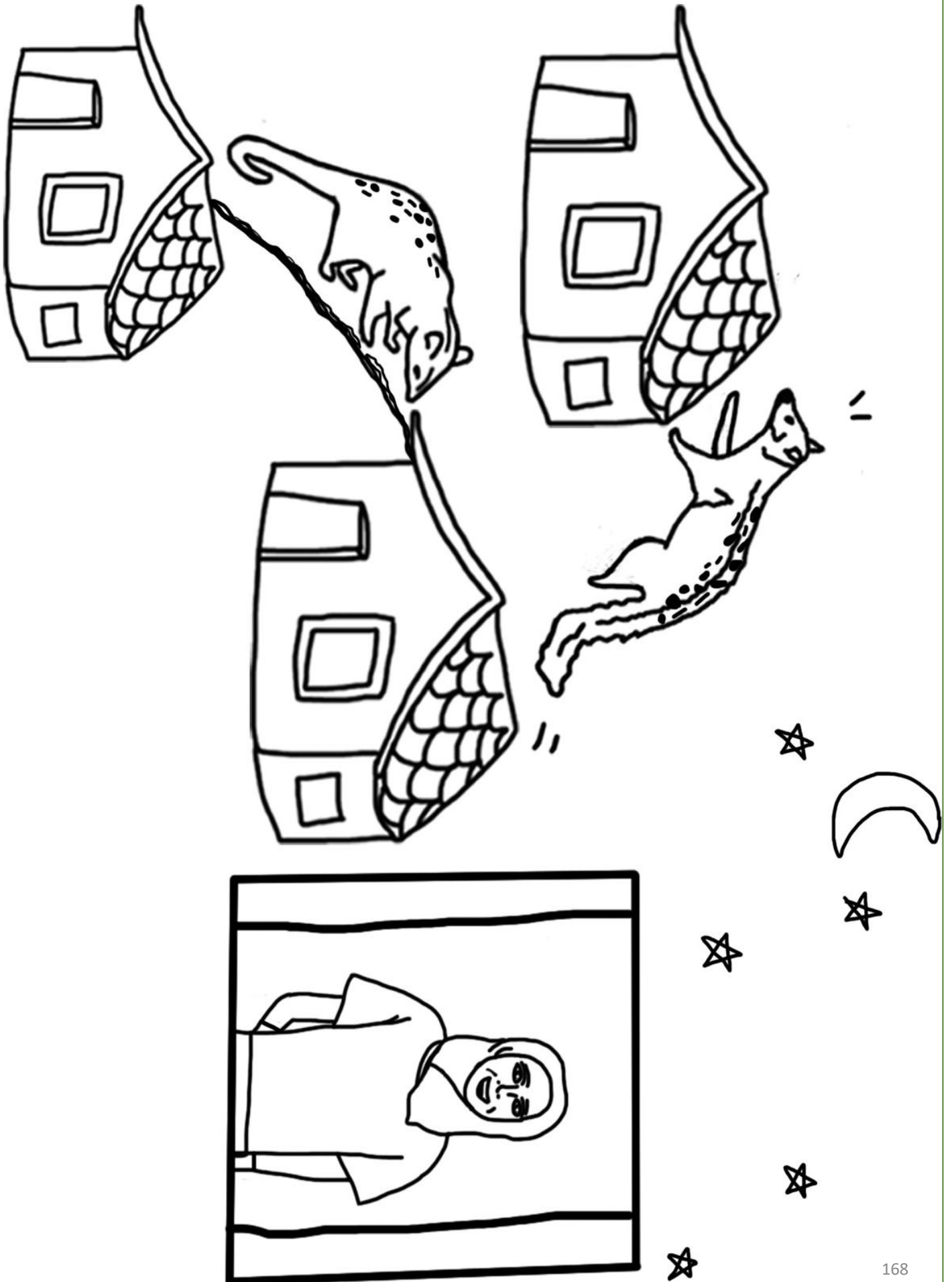
Resources: Adaptation sheet, scissors

Time: 20 mins

Adaptation sheet

Scenario	Adaptation
A predator tries to attack you	Spray a bad smelling scent
You like to search for food at night when it's dark	Have big eyes which help you see in the dark
You eat lots of different types of food	Have different types of teeth for different foods
You run across thin wobbly wires and pipes	Have a long tail which helps you balance
Your favourite food is found at the top of a tree or building	Curved claws which help you climb
A farmer's crop blocks your path	Use the water pipes as a bridge
You need your mum to come and find you	Mark the trees around you with your familiar scent
You don't want to share your food with other civets	Spend most of your time alone
You want to avoid predators that are active during the day	Be active at night
You're trying to catch a very fast mouse	Have strong legs to help you pounce

Story 4: Colouring in sheet



Story 4: The do not disturb game

Goal: To learn about human-civet interactions.

Objective: To understand that civets are shy animals that should not be disturbed by people.

To examine and demonstrate how humans should behave around civets and other wild animals.

To express a commitment towards respecting civets by keeping a distance during future encounters.

Instructions:

- Hand out civet mask templates, colouring pencils, string and scissors to each child.
- The children can colour in the masks how ever they want. See whether they decide to use accurate colours or not.
- Cut out the masks and poke two holes through the eyes and two holes on each side of the mask. Loop the string through the side holes and tie around the child's head.
- Once they have finished making the masks, place them in groups to play the “Do not disturb game”.
- The aim of the game is to sneak past the sleeping civet without being heard or caught.
- Each child will have a chance to be the sleeping civet (if they want to, they can wear their mask).
- The child playing the civet will lie on the floor with their eyes closed and the other children will take in in turns to try and sneak past the sleeping civet. The sleeping civet will point to wherever they hear noise and if they correctly point at the child sneaking past, they win.
- Explain to the children that if they ever come across a civet or any wild animal in real life they should be as quiet and calm as possible because wild animals are very shy, and we should try not to disturb or scare them.

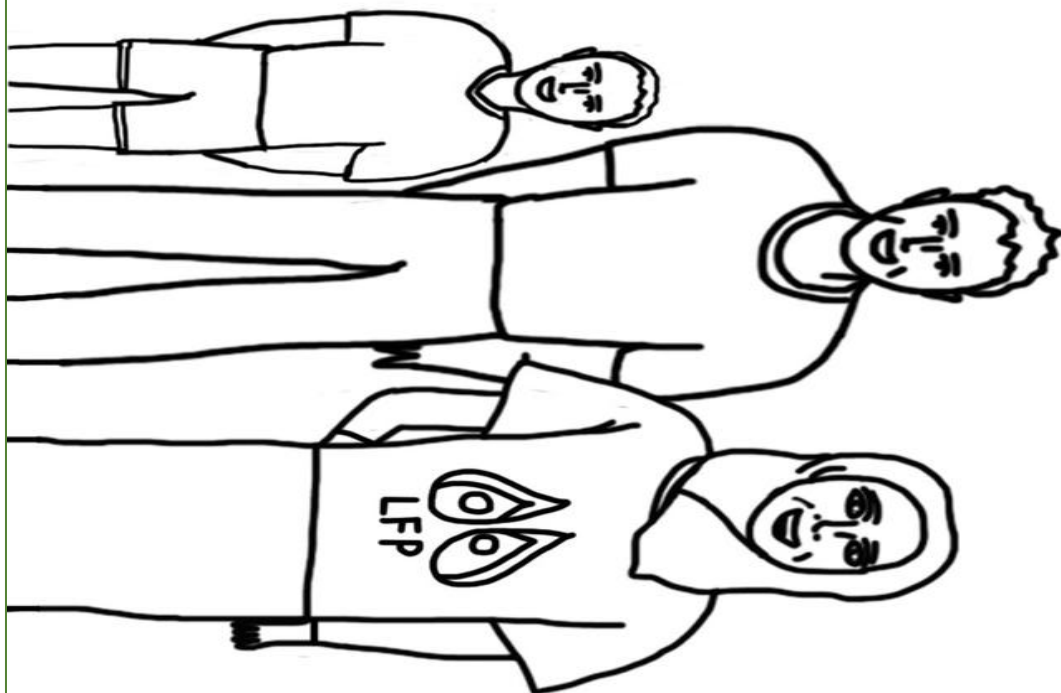
Resources: civet masks, colouring pencils, scissors, string.

Time: 1 hour

Civet mask



Story 5: Colouring in sheet



Story 5: Name your favourite things

Goal: To learn about all the things a civet needs to stay healthy and happy.

Objective: To recognise and discuss that civets have certain needs which can't always be met in captivity.

To relate to civets by listing items that they need to make them healthy and happy.

Instructions:

- Hand out pieces of paper and pencils to each student.
- Ask the students to list or draw items that they need to survive (such as food, water, a house) and items that make them happy (such as their favourite toy, their friends, or their favourite food). If the children are struggling prompt them by giving a few examples of things that make you happy.
- The children should do this work independently.
- Once they have finished, ask the children to read out what they have chosen and create a group discussion about why the children have chosen what they have.
- Ask the children what would happen if these things were taken away from them. Explain this is what happens to a civet when they are taken from the wild and no longer have all the things they need to survive and make them happy. Therefore civets shouldn't be taken from the wild!

Resources: Paper and pencils.

Time: 20 minutes

Story 6: Colouring in sheet



Story 6: The civet detective game

Goal: To learn about civets through exploring some of their habitats.

Objectives: To develop and connect what they have learnt about civets so far to real-world scenarios by exploring their habitats.

To build on their descriptive and identification skills by searching for civet clues.

To explore the forest and increase students' love and appreciation for nature and its diversity.

Instructions:

- Take the children out into the forest or to a coffee plantation to look for civet clues such as: civet poo, fruits civets like to eat, and places a civet would sleep.
- Before the trip hand out a note pad and colouring pencils to each child.
- Ask the children to call out if they think they have found a clue, or if you find one prompt the children with questions such as “would a civet eat anything here?”
- If any civet poo is found check to see if it contains seeds. The teacher will do this with a stick.
- Give the children time to complete observational drawings of any plant or animal they see. It doesn't have to be linked to civets.
- Bring rubbish bags and ask the children to pick up rubbish. We want to keep the civets' home clean!
- It could also be fun to create footprint traps. These can be made by filling a tray with wet soil or mud and leaving it at the base of a fruit tree such as a mango tree. Leave the tray over night and check for civet footprints the next day.

Resources: Note pads, colouring pencils, trays, rubbish bags.

Time: 1 hour 20 minutes.

Spreading the word!

Goal: To learn about how they can make a positive difference.

Objective: To cooperate and discuss with others what they have learnt and understand that they have a responsibility to share what they have learnt with others.

To develop their creative, communication, and decision-making skills by creating posters and prayers to share and perform with their parents.

Instructions:

- The children can work in groups to create a poster explaining what they have learnt about civets over the course of the programme.
- Hand out paper, colouring pencils, glue and any other materials that could be used to help the children be creative.
- The children can decide on what information they would like to include, which can either be written or drawn.
- Hand out copies of the Quran to each group and ask the children to pick a prayer that they could read with their parents at home about why and how they they should protect civets as one of Gods creatures.
- At the end of session ask the children to present their poster to the rest of the group. Ask them to describe what information they have included in their posters and why. Then ask them to read their chosen prayer.
- The children should be encouraged to take their posters home in order to share what they have learnt with their families and the wider community.

Resources: Pencils, paper, glue, copies of the Quran.

Time: 30 minutes

Creating promise bracelets

Goal: To develop responsive attitudes towards protecting civets.

Objectives: To express their commitment to protecting civets by creating promise bracelets.

To use the bracelets as a conversation piece to talk to their friends and family about civets and why they need protecting.

Instructions:

- Each child can choose three different colours of string which they will then plait into a bracelet.
- Help those that don't know how to plait, or they can choose to just tie different coloured string around their wrist.
- Explain to the children that these are their civet protector bracelets and represent their commitment and responsibility towards always protecting civets.
- Ask the children to go home and discuss what their bracelets mean with their families.

Resources: Different coloured string, scissors.

Time: 30 minutes

Keywords

- **Adaptation:** A special skill which helps an animal to overcome challenges and survive. Adaptations can be a physical part of the body, a process that occurs inside the body, or a behaviour.
- **Arboreal:** An animal that lives mostly in trees.
- **Carnivorous:** An animal that feeds on other animals.
- **Cathemeral:** An animal that is active at any time of night or day.
- **Ecological role:** The function of a species in its ecosystem. Such as disperse seeds, control pests or regulate the climate.
- **Endemic:** A species that can only be found in a single defined geographic location such as an island or county.
- **Enzymes:** These are molecules found in animals and plants that break down or build up other molecules.
- **Frugivorous:** An animal that feeds mostly on fruits.
- **Gestation:** The period between conception and birth where the foetus develops in the female's womb.
- **Habitat:** A place that an animal or plant lives. It provides them with shelter, food and water.
- **Introduced population:** A group of individuals from the same species that are living outside of their natural range.
- **IUCN:** The International Union for Conservation of Nature, is an international organisation that works in conservation and sustainable development. The organization has a Red List which classifies species based on how threatened they are.
- **Mutualistic relationship:** When two organisms of different species work together and have a relationship where both benefit.

Keywords

- **Nocturnal:** An animal that is mainly active at night.
- **Omnivore:** An animal that eats plants and other animals.
- **Organism:** Any living creature such as an animal, plant, or bacteria.
- **Perineal gland:** Also called the scent gland. It is located near the anus of some mammals and releases an odorous scent.
- **Population:** A group of individuals from the same species living and interbreeding within a given area.
- **Predator:** An animal that hunts and eats another animal.
- **Resident population:** A group of individuals from the same species that are living inside their natural range and remain there all year round.
- **Seed dispersal:** The transport and spread of seeds away from the parent plant.
- **Solitary:** An animal that does not usually live with others of the same species.
- **Species:** A group of closely related organisms that can breed and produce fertile offspring.
- **Sub-species:** Are subgroups within a species that may physically and genetically look different from the rest of group and live in sub-divisions of the species geographic range. But they are similar enough to breed with the rest of the species.
- **Terrestrial:** An animal that lives mostly on the ground.
- **Territory:** An area of land that is defended by an animal or a group of animals from other animals of the same species.



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