CapeNature Cubs Club
Kids Conserving Nature

GROUPS

Cubs Club lesson plan
for insect biodiversity

Use this lesson plan to support your action projects for this term.

Date

May to July 2025

Duration

1. **Introduction:** 15 minutes to 30 minutes
2. **Action Project:** 30 minutes to 8 hours
3. **Consolidation:** 15 minutes

Total Time: Between 1 hour and 1 day (depending on the project chosen).

Support material from toolbox



Whistle/ binoculars for outings



Seeds and collapsible spade



Magnifying glass



Kai & Friends Book & Activity Book

Newsletter name

Bug Buzz

Theme

Biodiversity - Insects

Key message

We need biodiversity (with the focus on insects) **to survive**. Insects are important and we need to protect them











Topics covered

Biodiversity (optional on programme)

- What biodiversity is
- Why biodiversity is important
- Biodiversity context in Western Cape (unique and irreplaceable)

Insects

- Insects are incredibly biodiverse
- Benefits / importance of insects
- Ways in which to protect our insects

Curriculum links

Subject: Natural Science and Technology Grade 4
Strand: Life & Living & Structures
Topic: Structures for animal shelters

Subject: Natural Science and Technology Grade 4
Strand: Life & Living & Structures
Topic: What plants need to grow

Subject: Natural Science and Technology Grade 5
Strand: Life & Living & Structures
Topic: Plants and animals on Earth (biodiversity, interdependence, animal types)

Subject: Natural Science and Technology Grade 7
Strand: Life & Living & Structures
Topic: Biodiversity

Subject: Life Skills Grade 5
Strand: Personal and Social Well Being
Topic: Health and Environmental Responsibility – safety measures at home and the environment
Strand: Creative Arts (role play action only)
Topic: Improvise and create (pair role play and improvisation on environmental issue)

Outcomes

Know

- What biodiversity is and why it is important (optional)
- What insects are, why they are important and why they need to be protected
- Ways in which we can protect our insect species

Do

- Actively do something to protect insects in the community
- Skills obtained from action projects and activity based learning in the lesson plan e.g listening, acting

Value

- Believe that it is our responsibility to protect biodiversity with the focus on insect's
- Believe that without insects, humans will be unable to survive

LESSON PLAN

1. Introduction

THINGS TO REMEMBER BEFORE STARTING YOUR LESSON

- Introduce staff
- Outline of the day/what to expect
- Rules of engagement
- Safety brief
- Divide into groups if applicable

SETTING THE SCENE/TUNING-IN

Before starting your lesson and action project, you need to set the scene and give the learners context. Here are two optional activities that you can use, to do so.


All things bright and beautiful:

KAI KISSES A FROG AND MAKES A NEW FRIEND

One day, just as the sun was rising, Kai, the leopard cub, and his brother and sister cubs came down to the river to drink.

Kai, who found his brother and sister very irritating, decided he needed some time out, so he asked his mom for permission to stay a bit longer. "Yes," replied his mom, "but make sure to return before the other animals come down to drink, and if there is any danger, mew very loudly."

Bearing that in mind, Kai ambled by the river, watching the dragonflies dance in the water, stopping every now and then as he caught a glimpse of his reflection in the river. He once thought it was another cub, but his mom explained it was just a mirror effect.

As Kai was daydreaming, he picked up the wonderful scent of something sweet and powdery and slightly spicy. He followed his nose until he found the source of this wonderful fragrance.

On the river's edge, was a cluster of long-stemmed trumpet-like white flowers. He rubbed his nose against the waxy softness. Making sure no one was watching him (like his brother or sister who would tease him forever), he closed his eyes and kissed the flower, dizzy with the wondrous scent that floated up his nostrils.

"Oh my gosh!" came a high-pitched voice from the flower.

"A talking flower," thought Kai, "how magical... maybe a new friend!"

As Kai opened his eyes and looked into the flower, a small head with big eyes popped out of the flower.

"Are you a frog?" asked Kai.

"Oh yes, one of the daintiest, smallest, and most beautiful of all frogs. I'm Asha, the Arum lily reed frog," she quipped, waving her webbed foot and batting her very long eyelashes.

"Hello Asha," said Kai, "the scent of the flower bewitched me. What a beautiful home you have!"

"Yes," she agreed, "arum lilies are really beautiful and are often picked for weddings and funerals! Naughty, naughty! You need permission and sometimes even a permit to pick flowers or remove animals from nature! But, I have to make sure that I'm not at home when that happens. We lost our poor old uncle that way you know – the flower he was sheltering in was picked and he was never heard from again!"

"How scary!" exclaimed Kai. "What is that long yellow spike inside the flower!"

"It's called a spadix and it's the flower part of the arum lily that attracts pollinators like insects," said Asha, as she rapidly stuck her tongue out to catch a small insect for breakfast.

She hopped out of the arum lily and landed next to Kai, close to the river. Kai told her about his home where he lived with his family and how it protected them from the weather and other predators.

"Oh, how different we all are!" exclaimed Asha, "but differences make for a good friendship. And you are such a handsome fellow with those bright blue eyes... I must admit, I'm a sucker for good looks."

As Kai and Asha were chatting away, getting to know each other, a large butterfly fluttered down from the treetops. It was Bulumko, the wise forest emperor butterfly. His shiny blue wings glistened in the sunlight and Kai and Asha were silent, as he landed on a nearby reed.

"Greetings my beautiful young friends," he said, his deep voice echoing across the river.

"Tat'omkhulu", said both Kai and Asha, lowering their heads as a sign of respect.

"I'm pleased you have both met," he said, "it's important to understand our differences and the important role each one of us plays in the environment."

"Where do you live?" asked Kai politely.

"Ash, I'm on my way home from a butterfly convention to one of the few bits of natural forest in the Western Cape, the Groototadersbosch Nature Reserve, home of the forest emperor butterfly. Did you know that it's the only place where my species is found! So, it's rare to see me here, as I'm a passer-by and don't live in this area!"

"Tell us more about where you live," said Asha, shyly lowering her eyelashes.

TUNING IN TO BIODIVERSITY OPTION 1

ACTIVITY

STORYTELLING
KAI MAKES A NEW FRIEND AND KISSES A FROG

DURATION

15 minutes

RESOURCES

Kai & Friends Book – All Things Bright and Beautiful

CURRICULUM LINK

Subject: Natural Science and Technology

- **GRADE 4**
  - » **Strand:** Life & Living & Structures
  - » **Topic:** Animal Habitats
- **GRADE 5**
  - » **Strand:** Life & Living & Structures
  - » **Topic:** Plants and Animals on Earth (biodiversity, interdependence, and animal types)

Read the All Things Bright and Beautiful, Kai Kisses a Frog story from the book.

1. **Paragraph 2** end – ask all the kids to pretend to be Kai and mew very loudly to call mom.
2. **Paragraph 5** – ask kids to pretend to take a deep breath and sniff in all the fragrance of the flowers.
3. **Paragraph 8** ("She hopped out of the arum lily…") – ask the kids to all hop out of the arum lily like the frog. You can ask them to make a sound of a fr og as well.
4. **Paragraph 17** (…a large butterfly fluttered down from the treetops…) – ask the kids to flap their arms like a butterfly flying in and landing.
5. **Paragraph 29** (…Bulumko flew off into the sun) – let children flap their arms again like Bulumko.
6. **Paragraph 30** (……one last whiff of the magnificent fragrance of my home..) – let kids take another pretend sniff of the flower.

Once the story is finished, explain some things to the children and ask some questions:

1. **Explain.** Kai, Bulumko and Asha the frog are all different. This is known as diversity. Would it not be a boring world without different animals and plants? You can use an example of only being able to eat cabbage every day.
2. **Question.** What does BIODIVERSITY mean?

   Answer. Biodiversity is the variety of life on Earth, in other words the different plants and animals we find on Earth. It also means the different habitats or homes like the different places that Bulumko the butterfly, Kai the leopard and the arum lily frog call home.
3. **Explain.** Different animals need different habitats. Animals need habitats for space to move, a place to reproduce, breathe, grow, feed and excrete.
4. **Question.** Pick an insect like Bulumko the butterfly from the story. What does he need from his habitat to survive?

   Answer. (can be written down by learners). He needs air to breathe, clean water, nectar/rotten fruit to feed on, a place to hide from birds and frogs.
5. **Re-read or highlight** this paragraph, how special our province is and that many plants and animals that are found here are found nowhere else - "First of all, let me tell you how special the Western Cape is," said Bulumko. "It's home to the smallest but most diverse of the six floral kingdoms of the world. Half of the plant species in this province are endemic, meaning that they are found nowhere else in the world.

All things bright and beautiful:

KAI KISSES A FROG AND MAKES A NEW FRIEND

P1 One day, just as the sun was rising, Kai, the Cape leopard cub, and his brother and sister cubs came down to the river to drink.

P2 Kai, who found his brother and sister very irritating, decided he needed some time out, so he asked his mom for permission to stay a bit longer. "Yes," replied his mom, "but make sure to return before the other animals come down to drink, and if there is any danger, mew very loudly."

P3 Bearing that in mind, Kai ambled by the river, watching the dragonflies dance in the water, stopping every now and then as he caught a glimpse of his reflection in the river. He once thought it was another cub, but his mom explained it was just a mirror effect.

P4 As Kai was daydreaming, he picked up the wonderful scent of something sweet and powdery and slightly spicy. He followed his nose until he found the source of this wonderful fragrance.

On the river's edge, was a cluster of long-stemmed trumpet-like white flowers. He rubbed his nose against the waxy softness. Making sure no one was P5 watching him (like his brother or sister who would tease him forever), he closed his eyes and kissed the flower, dizzy with the wondrous scent that floated up his nostrils.



Note that all stop points in the story are marked as follows e.g. Paragraph 5 = P5

P6 "Oh my gosh!" came a high-pitched voice from the flower.

P7 "A talking flower," thought Kai, "how magical… maybe a new friend?"

P8 As Kai opened his eyes and looked into the flower, a small head with big eyes popped out of the flower.

P9 "Are you a frog?" asked Kai.

P10 "Oh yes, one of the daintiest, smallest, and most beautiful of all frogs. I'm Asha, the Arum lily reed frog," she quipped, waving her webbed foot and batting her very long eyelashes.

P11 "Hello Asha," said Kai, "the scent of the flower bewitched me. What a beautiful home you have!"

P12 "Yes," she agreed, "arum lilies are really beautiful and are often picked for weddings and funerals! Naughty, naughty! You need permission and sometimes even a permit to pick flowers or remove animals from nature! But, I have to make sure that I'm not at home when that happens. We lost our poor old uncle that way you know – the flower he was sheltering in was picked and he was never heard from again!"

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"Oh, how different we all are!" exclaimed Asha, "but differences make for a good friendship. And you are such a handsome fellow with those bright blue eyes… I must admit, I'm a sucker for good looks."

P16 As Kai and Asha were chatting away, getting to know each other, a large butterfly fluttered down from the treetops. It was Bulumko, the wise forest emperor butterfly. His shiny blue wings glistened in the sunlight and Kai and Asha went silent, as he landed on a nearby reed.

P17 "Greetings my beautiful young friends," he said, his deep voice echoing across the river.

P18 "Tat'omkhulu", said both Kai and Asha, lowering their heads as a sign of respect.

P19 "I'm pleased you have both met," he said, "it's important to understand our differences and the important role each one of us plays in the environment."

P20 "Where do you live?" asked Kai politely.

P21 "Aah, I'm on my way home from a butterfly convention to one of the few bits of natural forest in the Western Cape, the Grootvadersbosch Nature Reserve, home of the forest emperor butterfly. Did you know that it's the only place where my species is found? So, it's rare to see me here, as I'm a passer-by and don't live in this area!"

P22 "Tell us more about where you live," said Asha, shyly lowering her eyelashes.



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P24 "It's home to the smallest but most diverse of the six floral kingdoms of the world. Half of the plant species in this province are endemic, meaning that they are found nowhere else in the world!"

P25 "So, all of us animals live in a very special place! To answer your question, Asha – my forest is home to nearly 35 forest tree species, including red alder, ironwood, stinkwood, and yellowwood,' said Bulumko, fluttering his wings.

P26 "The forest is a good example of biodiversity because we have a wide variety of living organisms," added Bulumko, quivering his feelers. "There are around 200 bird species, as well as bushbuck, baboons and other small mammals, not to mention the very rare ghost frog, which might interest you, Asha?"

P27 "Well, it's time to get going and fly home before the sun rises in the sky,' he said, hovering above Kai and Asha.

P28 "Remember, dear children, how special our biodiversity is and that it's important to our survival. So, let's all work hard to protect our environments," said Bulumko, as he flew off into the rising sun.

P29 "Gosh, what a clever chap!" said Asha, as she plopped back into the arum lily. "Anyway, it's warming up now. You can have one last whiff of the magnificent fragrance of my home, before I have my morning nap."





TUNING IN TO BIODIVERSITY OPTION 2

ACTIVITY

MATCHING SHADOWS AND CLASSES

DURATION

10 minutes

RESOURCES

Kai & Friends Activity Book page copied per child

CIRRICULUM LINK

Subject: Natural Science and Technology

- **GRADE 5**
  - » **Topic:** Plants and animals on Earth – biodiversity, how they depend on each other, and different types of animals.
- **GRADE 7**
  - » **Topic:** Biodiversity – different types of vertebrate animals.

Ask the children to try and complete the sheet above from the Kai Activity Book.

Once the activity is finished explain some things to the children and ask some questions:

1. **Explain.** There are many different plants and animals on Earth, just like the ones in the activity. This is known as diversity. Would it not be a boring world without different animals and plants? You can use an example of only being able to eat cabbage every day.

2. **Question.** What does BIODIVERSITY mean?

   Answer. Biodiversity is the variety of life on Earth, in other words the different plants and animals we find on Earth. It also means the different habitats or homes like the different places that Bulumko the butterfly, Kai the leopard and the arum lily frog call home.

3. **Explain** that animals can be divided into two groups – animals without backbones (invertebrates) and with backbones (vertebrates). Vertebrates are further divided into five classes including fishes, amphibians, reptiles, birds and mammals.

4. **Go through the answers** to the activity and explain each class they found.

5. **Explain.** There are many plants and animals in the Western Cape that we find nowhere else on Earth. It is therefore important that we protect the biodiversity in our Province.

AGES 4 – 8
Use the silhouettes predominantly.

AGES 9 – 13
Use the classification of animals predominantly.

AGE ADAPTATIONS



ACTIVITY

INTRODUCING INCREDIBLE INSECTS

DURATION

15 minutes

RESOURCES

No resources required

CIRRICULUM LINK

Subject: Natural Science and Technology

- **GRADE 5**
  - » **Strand:** Life & Living, Structures
  - » **Topic:** Plants and animals on Earth – focusing on biodiversity, how plants and animals depend on each other (interdependence), and different types of animals.
- **GRADE 7**
  - » **Strand:** Life & Living, Structures
  - » **Topic:** Biodiversity – specifically studying the different classes of vertebrates (animals with backbones).

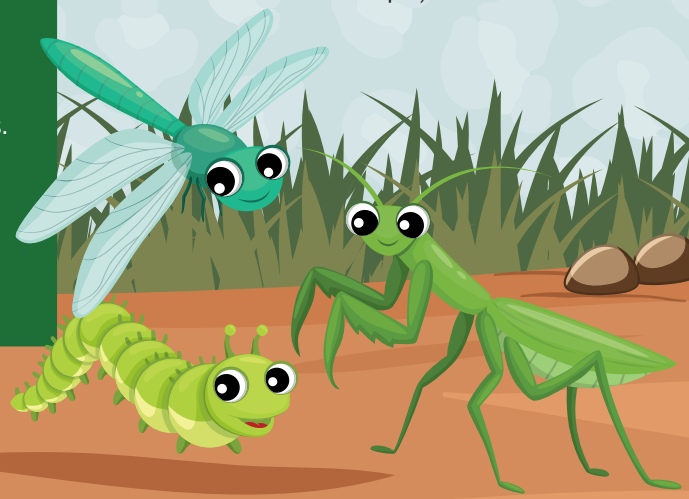
1. **Explain** to learners that insects are one of the many types of animals we get on Earth. The diversity of plants and animals is called biodiversity (the variety of plants and animals on Earth). Animals can be divided into two groups – animals without backbones (invertebrates) and with backbones (vertebrates). Vertebrates are further divided into five classes including fishes, amphibians, reptiles, birds and mammals. Insects are invertebrates and they come in many shapes and sizes with a large diversity.

   Just within the class of Insecta we get many different types – all shapes and sizes.

2. **Ask learners** to write down one type of insect and what they think the benefit may be to us. Ask some of them to share their answers. Some answers could include: Pollination: Bees, butterflies, and other pollinators help plants reproduce by transferring pollen. Pest control: Ladybugs and predatory beetles keep harmful pest populations in check. Soil health: Earthworms and other organisms enhance soil structure and nutrient cycling.

3. **Ask the learners** to think about what would happen if all the insects on Earth disappeared. Pose the question to them. Re-iterate that without insects, we would get none of the benefits, so it is important to protect them.

4. **Explain** that today's action project helps protect or encourage the growth of insect populations – without which, we would cease to exist (using no pollination = no food as an example)



2. Action Projects

Ensure to consult your newsletter for point allocations for each activity. Any number of activities below may be completed and is entirely optional. The more projects that are completed, the more points your group will earn.

ACTIVITY

ACTION PROJECT 1 -
BUILDING AN INSECT HOTEL

DURATION

1 hour to 8 hours (depending on complexity)

RESOURCES

You will need a place to build your insect hotel as well as materials to build it. This can range from pipes, bricks, sticks, dried grass, hollow plant stems, strings, wire – depending on the size and complexity of your hotel. If you are building a hotel with a frame – a drill, screws and hammer may be needed. Optional art supplies like paint can be used for decorating your hotel.

POINTS

Your group will earn 150 points for building a very simple and 250 points for a complex insect hotel

EVIDENCE

Post a picture of your group with their insect hotel

AGE ADAPTATIONS

AGES 4 – 8
Have pictures of insects with their names and benefits on it. Ask learners to read and share.

MIXED AGES
Older children can write down the insect and the younger child can draw it.

CIRRICULUM LINK

Subject: Natural Science and Technology

- **GRADE 4**
  - » **Strand:** Life & Living, Structures
  - » **Topic:** Structures for Animal Shelters

To make this action project more aligned with the curriculum, ask learners to design and draw an insect hotel based on the insects they want to attract.

In their design, they should:

- Identify the target insects the hotel is built for.
- Explain how the hotel will provide shelter, fresh air, a safe space for reproduction, and a place for young insects to grow.
- List the materials they will use and explain why those materials are suitable.
- Label and describe each part of the insect hotel and its purpose.
- Include the size of the different parts in their drawing.

To build an insect hotel, choose a location near the plants you wish to protect and pollinate. Gather natural materials such as stems, twigs, sticks, dry leaves, moss, wood chips, and old bricks. Build the hotel structure using the collected materials. Place the insect hotel in a sheltered area close to nectar-rich flowers.

For a simple hotel, collect handfuls of stems, twigs and sticks from the ground – make sure to leave plenty behind for the wildlife. Tie the bundles of stems, twigs and sticks in two places. Add any items that create a space for insects to hide. Push everything into a sheltered place.

For a more luxurious insect hotel, make a wooden frame, fixing the wood with screws or nails. Fill the frame with stems, twigs and other items. You can even decorate your frame with paint or other materials.

Get ready to welcome your insect guests!




Bug HOTEL


BUG Hotel
Happy Toddler Playtime


BUG HOTEL


anphibians
Straw and grass for lacewings
spiders
Bees and ladybirds
lady bugs
www.playfullearners.co.uk

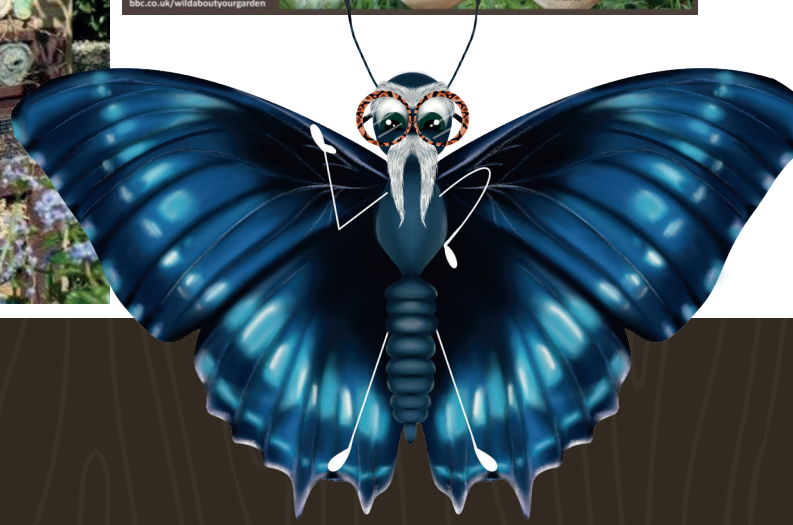

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DIY Bug House
Hearth & Vine




Make a... mini-beast mansion
The different habitats offered by a mini-beast mansion will attract a real variety of creatures to your garden. In return they might even keep the pests away.
straw, hay, dead woods and dry sticks
for burrowing
for insects
nectar rich potted plants
for bees and butterflies
upside down plant pot
for queen bee
for solitary bees
bundles of garden canes
fir cones, dry leaves and bits of bark
for insects
clay drainage tubes
stones, bricks and old roof tiles
for amphibians
Start by getting up to five used pellets. Put the bottom one upside down to make larger openings for hedgehogs. Make sure they're on firm ground in a slightly damp semi-shade close to overgrown vegetation or a pond. Put the largest plants or a pond. Put the largest ones at the bottom and secure them to each other if necessary. Then create different habitats by filling the pellets with...
Why not send in a photo of your mini-beast hotel? For details go to bbc.co.uk/wildaboutyourgarden



ACTIVITY

ACTION PROJECT OPTION 2 -
PLANT INDIGENOUS INSECT ATTRACTING TREES, PLANTS, FLOWERS OR VEGETABLES

DURATION

30 minutes to 8 hours (depending on complexity)

RESOURCES

A spade and seeds have been provided in your support toolbox. The remaining resources would depend on your preference and may include a planter box, trees, seedlings and soil.

POINTS

Your group will earn 100 points for planting a tree an indigenous tree, flowers or shrub or starting simple veggie garden. For a complex garden or veggie garden planted, earn your group 200 points



EVIDENCE

Submit a picture of your group before and after the tree or garden was planted (show the tree or garden in your pictures)

CIRRICULUM LINK

Subject: Natural Science and Technology

- **GRADE 4**
  - » **Strand:** Life & Living, Structures
  - » **Topic:** What Plants Need to Grow

To make this activity more curriculum-friendly, ask learners to think about what a tree, flower, or seed needs to grow and survive.

Key points to teach:
- Plants need light, water, and air to grow.
- Seeds need water and warmth to start growing.
- When a seed begins to grow, this process is called germination (introduce this as a new word!).

This approach will help learners understand the basic needs of plants in a simple and engaging way!

Plant a tree, a flower, or a vegetable garden. Set up a window box or planter in your backyard or at your community park (with permission, of course.) Just plant something. The more plants there are, the more bees will find food and a stable habitat. Every plant counts, so you can contribute by planting anything!

ACTIVITY

ACTION PROJECT OPTION 3 -
DO AN INSECT INSPIRED ROLEPLAY

DURATION

45 minutes to 90 minutes

RESOURCES

Props of your choice

POINTS

Earn your group 150 points for completing a role play

EVIDENCE

Submit a video of your role play

CIRRICULUM LINK

You can choose a role-play topic and level of difficulty that aligns with any curriculum mentioned at the beginning of this lesson plan.

Additionally, role-play can be connected to:

- **Subject:** Creative Arts (focusing on role-play action)
- **Strand:** Improvise and Create
- **Topic:** Pair role-play and improvisation based on an environmental issue

This allows learners to explore real-world problems creatively while developing their acting and improvisation skills.

Assign a role to each child in the group and prepare a roleplay about insects. Some role ideas include beekeeper, nature conservation official, mayor, lady that kills insects, person that uses bug spray, child stung by bee, tree, vegetable, ant, earthworm, bee, praying mantis. Some topic ideas include the benefits of insects, the threats to the planet in the face of declining insect numbers and how we can protect insects. Come up with a fun name for your play, record it and send it to us! Simple as that. We suggest the role plays be as impromptu as possible and be between 2 and 5 minutes.



ACTIVITY

ACTION PROJECT 4 -
MAKE INSECT FRIENDLY HOSEHOLD PRODUCTS

DURATION

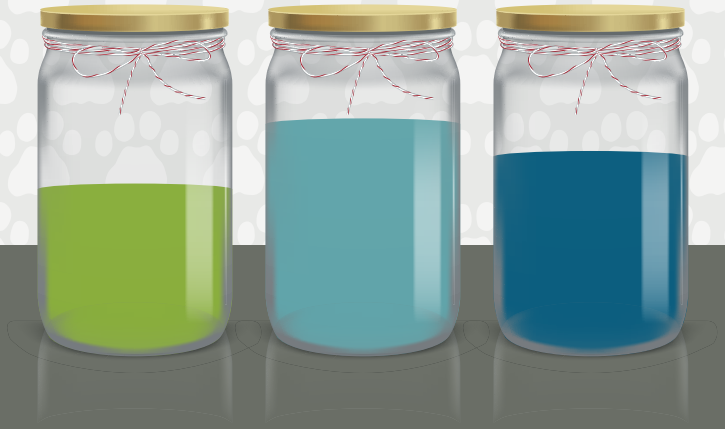
30 minutes

RESOURCES

Re-usable containers for children to mix their cleaners in (ask children to bring cleaned out containers like coffee containers, margarine containers, ice cream containers etc. Anything that can hold a liquid, has a wide opening and a lid will do), natural products like vinegar (kills bacteria, cuts grease and kills mildew), baking soda (scrubs without scratching) and lemon juice (removes mildew, cleans grease and leaves a citrus scent), spoons for mixing, items to test the cleaning products on, cloths to clean

POINTS

Your group will earn 50 points for each recipe mixed



EVIDENCE

Submit a picture of your product and the recipe used

CIRRICULUM LINK

Subject: Life Skills

- **GRADE 5**
  - » **Strand:** Personal and Social Well-Being
  - » **Topic:** Health and Environmental Responsibility – Safety at Home and in the Environment

Many household cleaning products contain harmful chemicals that can be dangerous to insects and the environment. By using natural cleaning products, we can help protect nature while keeping our homes clean in a safer, eco-friendly way.

Here's how to make simple, natural cleaners:

1. Choose a recipe (two examples are provided below).
2. Mix the ingredients as a group.
3. Test the cleaner on a surface so learners can see that it works!

» **Key lesson:** Encourage learners to understand the benefits of using environmentally friendly cleaning products and how small changes can help protect the planet.

ALL PURPOSE CLEANER
2 Cups of hot water, add 3 tablespoons of vinegar, 1 teaspoon enviro-friendly dishwashing liquid. Mix well.

STAIN REMOVER
Combine lemon juice and baking soda in equal parts to remove tough stains.

ACTION PROJECT OPTION 5 -
VISIT A RESERVE OR NATURE AREA AND RECORD THE FINDING ON I-NATURALIST

1 hour to 5 hours

Magnifying glass provided in support box. Binoculars provided in support box. i-Naturalist App on a phone or phones with a camera.

Your group can win 200 points for participating.



Submit a picture of your group during the challenge as well as a picture/screenshot of one of the items entered and submitted onto the App.

Subject: Natural Science and Technology

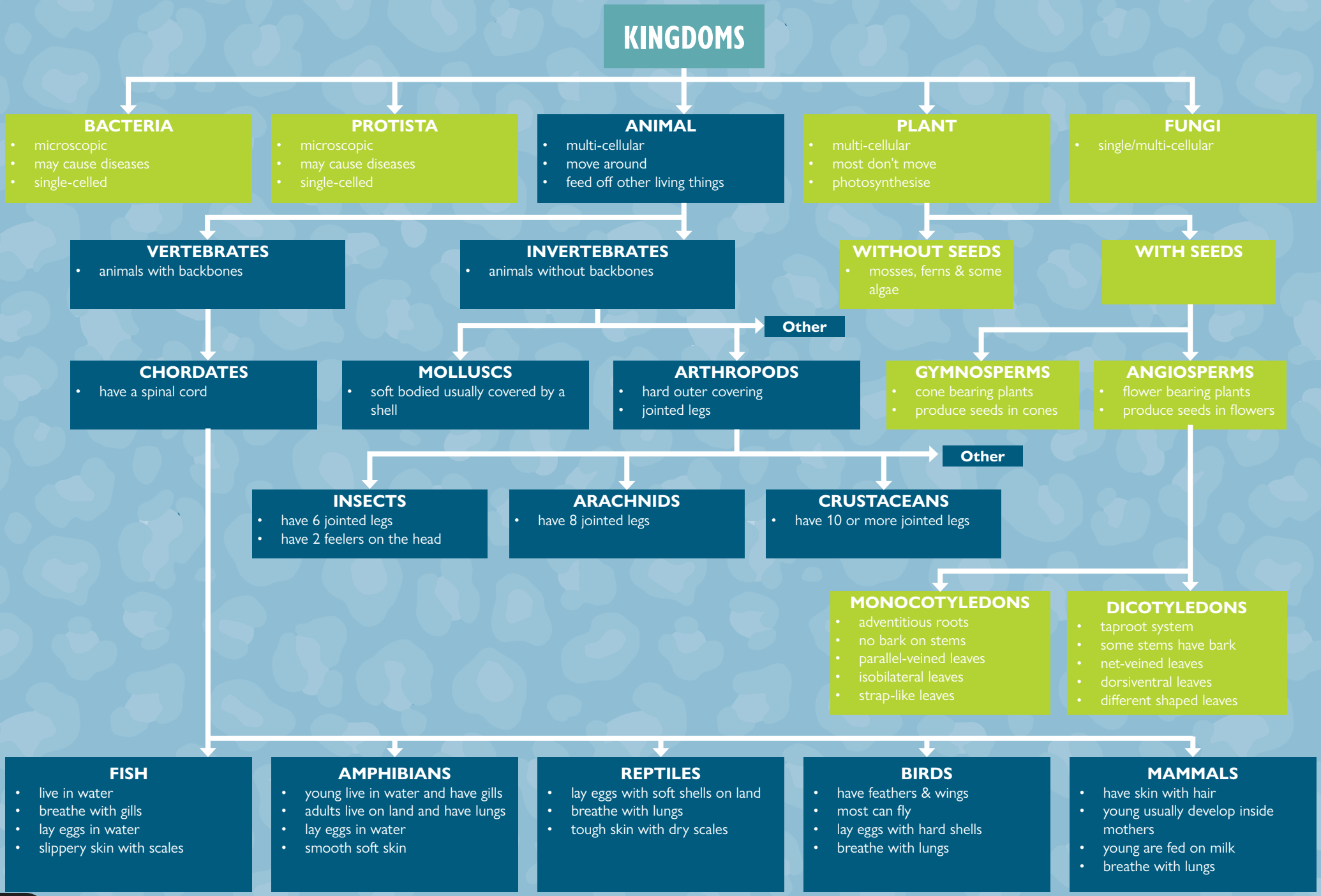
- **GRADE 7**
  - » **Strand:** Life & Living, Structures
  - » **Topic:** Biodiversity

To make this lesson curriculum-friendly, have learners classify each plant or animal they identify using the following categories:

1. **Main Group:** Is it a **Plant, Animal, Fungi, Bacteria, or Protista?**
2. **Plants**: Is it a **Gymnosperm** (cone-bearing) or an **Angiosperm** (flower-bearing)?
3. **Animals:** Is it a **Vertebrate** (has a backbone) or an **Invertebrate** (no backbone)?
4. **Vertebrates:** If it's a vertebrate, classify it further into **Fish, Amphibians, Reptiles, Birds, or Mammals** using the guide provided (see next page).

This activity will help learners understand biodiversity by organizing living things into scientific groups in a structured way.

Visit any nature area and upload your findings onto the i-Naturalist App. We would like to see evidence of any insects you found.


KINGDOMS
BACTERIA
• microscopic
• may cause diseases
• single-celled
PROTISTA
• microscopic
• may cause diseases
• single-celled
ANIMAL
• multi-cellular
• move around
• feed off other living things
PLANT
• multi-cellular
• most don't move
• photosynthesise
FUNGI
• single/multi-cellular
VERTEBRATES
• animals with backbones
INVERTEBRATES
• animals without backbones
WITHOUT SEEDS
• mosses, ferns & some algae
WITH SEEDS
Other
CHORDATES
• have a spinal cord
MOLLUSCS
• soft bodied usually covered by a shell
ARTHROPODS
• hard outer covering
• jointed legs
GYMNOSPERMS
• cone bearing plants
• produce seeds in cones
ANGIOSPERMS
• flower bearing plants
• produce seeds in flowers
Other
INSECTS
• have 6 jointed legs
• have 2 feelers on the head
ARACHNIDS
• have 8 jointed legs
CRUSTACEANS
• have 10 or more jointed legs
MONOCOTYLEDONS
• adventitious roots
• no bark on stems
• parallel-veined leaves
• isobilateral leaves
• strap-like leaves
DICOTYLEDONS
• taproot system
• some stems have bark
• net-veined leaves
• dorsiventral leaves
• different shaped leaves
FISH
• live in water
• breathe with gills
• lay eggs in water
• slippery skin with scales
AMPHIBIANS
• young live in water and have gills
• adults live on land and have lungs
• lay eggs in water
• smooth soft skin
REPTILES
• lay eggs with soft shells on land
• breathe with lungs
• tough skin with dry scales
BIRDS
• have feathers & wings
• most can fly
• lay eggs with hard shells
• breathe with lungs
MAMMALS
• have skin with hair
• young usually develop inside mothers
• young are fed on milk
• breathe with lungs

3. Consolidation

Wrap up after your action project by reminding learners why the project they have completed is important to biodiversity and insects in general. Ask each participant to write down one thing that they have learned. They may only use one word to express what they learned e.g. insects, biodiversity. Let each of them read their word out loud. Younger children do not need to write down the word, they can just say it.

ACTIVITY

CONSOLIDATION OF BUG BUZZ PROGRAMME

DURATION

15 minutes

RESOURCES

Pen and paper (older children)



Notes





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