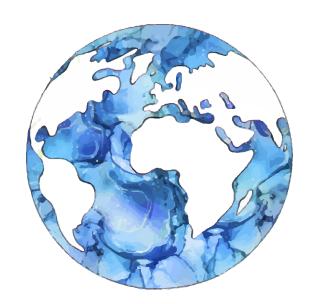
Dombera Conservation & Development Association

Conservation Lessons



Grades 0/1, Eswatini

In collaboration with:

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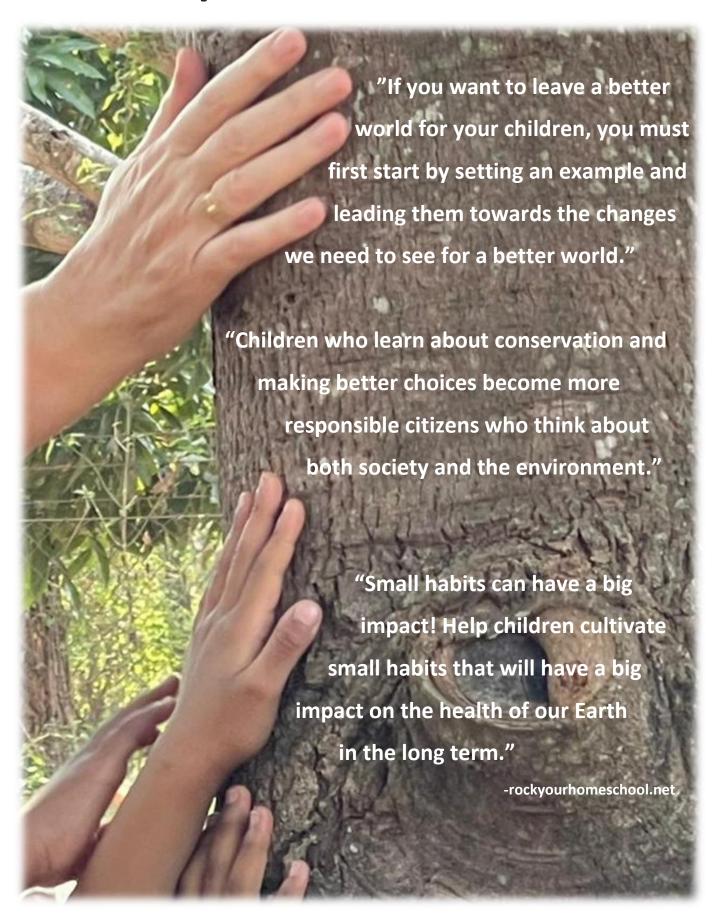
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Grade 0/1 Conservation Lessons



Overview

- The goal of these lessons is to excite children about nature and introduce them to the important idea of nature conservation. The best way to achieve this goal is to make the lessons FUN and ACTIVE!
- There are 9 lessons; ideally, the 10th lesson should be a hands-on field trip to a nature area (Hlane, Mbuluzi, Mlilwane, etc).
- All lessons can be adapted for Grade 0 or 1, and they are focused on Eswatini/Africa. The lessons include:
 - 1. Planet Earth, Our Home
 - 2. Plants: Living Things
 - 3. Trees and Me (1)
 - 4. Trees and Me Continued (2)
 - 5. Importance of Water
 - 6. Animals, Our Friends
 - 7. Animal Habitats and Homes
 - 8. Camouflage
 - 9. Interesting Facts: Special Animals

Annex: Printables for each Lesson

- All lessons are approximately 40 minutes, including the activities. Depending on your schedule, you can do 1 or 2 lessons a day.
- Depending on the class, and interest in each topic, you can take more or less time on lessons.
- Activities and photographs are included at the end of the lesson plans, for printing/laminating.
- Pictures should be printed at least A4 size so children can see them easily.
- Words highlighted in green are vocabulary, for teachers to emphasize, over and over. The more you repeat, the more the children will remember.
- Success is in the teaching! The more ENTHUSIASTIC and ENERGETIC you are, the more the children will delight in nature and conservation.
- Teachers need to be well prepared and understand the lesson content very well. Please do extra reading on the different topics if needed. Teachers should read the entire lesson in advance and be very familiar with the words and activities.
- In the lessons, notes in italics are ideas for the teacher and expected answers from the children.
- YOU, as a teacher, are also a CONSERVATION SUPER HERO!
- The more you are a role model- showing your excitement and passion about nature- the more the children will also be excited about nature; this is our goal!

LESSON 1: NATURE "Planet Earth, Our Home..."

Objectives: At the end of the lesson, children will be able to:

- 1. Articulate what conservation means
- 2. Understand how humans and nature should "interact"
- 3. Begin to think about what is good for the environment/nature

Type of Lesson: Discussion

Lesson Aids/Materials:

Pictures to Print (see right and in annex)

- 1. Conservation Hero
- 2. A Globe (or picture of the earth)
- 3. What We Need to Survive
- 4. Activity Pictures 1 to 8 (below, and in annex)
- 5. Super Hero Badges (1 per child, for the children to cut out, in annex; use strings or pins to put on)







Steps	Time	Teacher's Activities				
Step 1	5min	 Introduction: For the next few lessons, we're going to talk about nature and our plane First, we want to help you become Super Heroes! Who wants to be a Super Hero? What do Super Heroes do? Let the children answer. (do good things, save people, help others, do good, help people in need. Yes, they do good; they help other people and animals. Today, we are going to become Conservation Super Heroes because vare going to learn how important it is look after our Planet Earth. Who wants to be a Conservation Super Hero?! Can you say this with many Conservation Super Hero! Again, this time, louder! Again! Listen very carefully to what we will be talking about. We want YOU go home and tell your mommy and daddy, your Gogo and Mkhulu, you cousins, sisters and brothers – EVERYONE- so everyone understands how important it is to look after nature, our environment, our Planet Ear We can ALL be Conservation Super Heroes! 				
Step 2	5min	 Quick Activity Broken Telephone Broken Telephone is a classic children's game played in a group. Children sit in a large circle and whisper a word or phrase into the ear of the person sitting next to them. The word or phrase is whispered in this way, one by one. The last person in the circle says the word or phrase out loud to see if it is the same as the original word or phrase. It usually changes into something different. Divide children into 2 groups – put them in a circle. Whisper in one child's ear "I love my planet". Allow them to pass the message on by whispering in the next child's ear. Allow the last child to say aloud what they heard. (It will probably be different that the original message; this is fine and fun). Ask the children: why did we play this broken telephone game? As 				

		Conservation Super Heroes, we cannot be a broken telephone! Let's <u>not</u> whisper or keep quiet about being Conservation Super Heroes! Let's be sure to shout it out that "We need to look after our planet!" This is our new job, as Conservation Super Heroes.
Step 2	5 min	 Show the Globe: point out the water (blue) and the land (brown/green) Planet Earth gives us EVERYTHING that is needed for people and animals to survive, and to thrive (live happily) What do we need to do – as Conservation Super Heroes- is we need to CONSERVE, or look after, or protect, all of these things. Can you say: CONSERVE? Good. This means to protect, or use carefully, so things don't run out. What are the things that Planet Earth gives us? Let the children answer: Sun (light), Water and Air. We humans need to look after, or conserve, all of the plants, all of the animals, all of the birds, the fishes, the watereverything! Can you name other things the Earth gives us in nature that we need to conserve? Allow & encourage the children to help name all the living things they can think of.
Step 3	5 min	 Questions: Do you think we are doing a good job looking after all living things on our planet? Do you think we are conserving, or protecting, our environment, keeping it safe and healthy? Encourage more than a yes / no. Help them to explain why they saying their answers. All answers are OK; the goal is encourage the children to think about this. Remember to keep repeating the words conserve, conservation, and Conservation Super Heroes over and over.
Step 4	15min	I'm going to show you some pictures now. You tell me if what we, as humans, are doing is making Planet Earth happy or sad by giving a thumbs up if we're keeping the Planet happy and conserving nature- or a thumbs down if we're making the Planet sad, and making a mess of nature and our environment. Here we go: Show pictures 1 to 8 and ask children to give a thumbs up or down, and also ask them why they give it a thumbs up or a thumbs down. Discuss the answers. 1. Littering on land (sad) 2. Having a picnic (happy) 3. Littering a river (sad) 4. Beautiful clean beach (happy) 5. Beautiful flowing river (happy) 6. Litter along a road (sad) 7. Forest cut down (sad) 8. Beautiful forest (happy)
Step 5	5min	Remind children that as Conservation Super Heroes, our job is to protect, or conserve, ALL of nature and now we're going to make cool badges to

wear!



• Allow the children to cut out "Super Hero" badges and write their names on the back (teachers can write names on the front if children have not yet mastered writing in a small space).

Teachers should laminate each badge and present them to the children the next day, one by one. Teacher can pin the badges on their shirts. Alternatively, teachers can punch a hole in each badge and put the badge on a string, as a necklace for the children to wear.

Encourage the children to wear their badges, proudly! Tell the children congratulations, they are becoming Conservation SUPER HEROES!

LESSON 2: PLANTS: "LIVING THINGS"

Objectives: At the end of the lesson, children will be able to:

- 1. Understand that plants are essential for us, as humans, to survive
- 2. Understand that plants are essential for all animals to survive: understanding the food chain
- 3. Understand how we can conserve / protect plants and help them grow / survive

Type of Lesson: Science Foundation

Lesson Aids/Materials:

- Pictures (from lesson 1)
- Pictures 1 to 5 (from lesson 2)
- A real chain (to illustrate what a chain is, to explain a food chain), or a paper chain with at least 5 "links"
- Activity pictures of animals and arrows to make a food chain
- Small containers (small yogurt tubs, or plastic containers, with a small hole poked in the bottom, soil, bean seeds, water (at least 2-3 seeds for each child)

Steps	Time	Teacher's Activities						
Step 1	5min	Introduction: Recap • OK, children, who are we? CONSERVATION SUPER HEROES						
		 What do we do? We protect and conserve our Planet Earth! 						
		• Ask the children: what does conservation mean? To protect, or keep things safe, or make sure things don't get used up, or run out.						
		How do we do this? We talk aloud about what we are learning about nature						
		and conservation.						
		Ask the children what they remember about lesson 1. Emphasize what we as humans do to nature and show some pictures from Lesson 1						
		(sometimes we protect it and sometimes we make a mess in nature.)						
Step 2	10min	Discussion:						
		 Today, we're talking about plants. Let's talk about what plants need to stay alive; show the picture and explain it. Air- all plants need air to grow. Explain that there is something called air pollution- which means putting bad things in the air, like smoke from factories or cars, or chemicals; explain that air pollution is bad for the environment and makes the air bad to breathe- for plants, humans and all animals. Light – sunlight- all plants need sunlight to grow. Talk about the sun by showing the picture of what the sun gives us. Water- plants get water from the ground, and from rain Soil- this is how plants get healthy nutrients to grow. Space to grow Why are plants important to us? What do plants give us? Allow the children to give ideas: 						
		 Space to grow Why are plants important to us? What do plants give us? Allow the chi 						

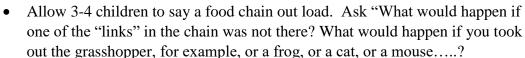
Plants are food for other animals (have they ever seen a bird eating seeds, or impala eating grass?)

Plants give us things to build with, like wood and thatching grass.

People make many medicines out of plants.

Plants are shelter, or homes, for many animals, like birds in a nest, or monkeys in trees

- Why are plants important to the survival of animals?
- They form the most important part of a **FOOD CHAIN**.
- Show the real chain you brought (or a paper chain); show how there are many "links", and they are all connected. If one of the links breaks, then the chain breaks. A chain needs ALL of its links to work.
- What is a food chain: this is like a real chain. It is a group of plants and animals, linked, based on what they eat. It is a chain that is about food. We talk about food chains in nature to show who eats what.
- Can you say: FOOD CHAIN?
- There are hundresds- thousands- of possible food chains (who eats what). Let's look at some.
- Show pictures of food chains. Explain them.
 - o In the circle picture, the sun helps a plant to grow. Who eats the plant? A grasshopper. Who eats the grasshopper? A frog. Who eats a frog? A snake. Who eats a snake? An eagle. And the last picture shows how when things die, they go back into the Earth and help other things live and grow, like mushrooms and new plants.
 - -Explain the food chains in the other picture.
- Food chains start with the sun helping a plant to grow- this is why plants are so important.
- Ask the children to make a food chain in their minds.
 Ask one child to tell the class about their food chain.
 You might have to remind the child to start with the sun helping a plant to grow, then ask what eats the plant? Etc etc.



Expect answers like: The frog will die because it won't have anything to eat. This is correct. Keep asking what will happen if we took XYZ out of the chain? Explain that the food chain will break because everything needs to eat, and everything is dependent on each other.

- Every single part of the food chain is important in nature; this is why we have to make sure we protect, or conserve, ALL of nature!
- There is not just 1, or 10, or 20 or 100 correct food chains, there are so, so many food chains. This is because there are so many living things in nature, and most animals eat many different things. A cat, for example, eats mice, rats, grasshoppers and birds, so there are many food chains you could make with a cat.

Step 3

15min

Divide the group into 2 smaller groups, about 10 children/group

One group does Activity 1 and the other does Activity 2, and then swaps

Activity 1: Walking a Food Chain

❖ Head out to the playground for an interactive food chain game! Lay out the laminated cards showing the food chain. Explain that the arrows show what eats what. If a grasshopper eats a plant, then the arrow points toward the grasshopper.



- ❖ Have children help place arrows to make a food chain. Then, children can walk around the chain, by following the arrows, to understand how the parts of the chain work.
- Ask the children what happens if one of the links in the chain is taken away? The chain is broken and that animal has nothing to eat. Talk about how plants are so important because they're the start of the chain, getting energy from the sun to fuel life. Physically remove the plant card and ask the children what happens to all of the animals in the chain, if there are no plants to eat? The other animals then don't have anything to eat.

As an alternative activity, you can also allow the children to make new food chains with pictures and explain them (what eats what); make sure to always start with a plant, so they understand the importance of plants, in nature and food chains.

Vocab to emphasise: Food Chain

Activity 2: Planting Seeds

Today we are going to plant our own seed (bean); we going to put it somewhere where it will get sunlight, fresh air, and space; we will water it every day to see it grow. Remember, food chains start with plants!

Instructions:

- 1. Allow each child or group of children to fill their plastic cup three quarters full with potting soil.
- 2. Write child's names on containers or on a stick as on the picture
- 3. Plant two or three seeds in each pot and cover gently with soil.
- 4. To avoid disappointment, plant 5-10 extra cups, just in case some of the children's seeds don 't germinate.
- 5. Water lightly
- 6. Place outside in a half sunny, half shady spot

Every day, allow children to water the seeds, gently. Talk about what would happen if we didn't water the seeds, or if there was no air, or sunlight. Remind the children that plants are very important in nature and that Conservation Super Heroes love and protect plants!

LESSON 3: TREES & ME (1)

Objectives: At the end of the lesson, children will be able to:

- 1. Be more aware of trees around them, and their importance in nature
- 2. Think about trees by looking at their shape, leaves, seeds, flowers and bark

Type of lesson: CREATIVE ARTS / MUSIC & MOVEMENT

Lesson Aids/Materials:

- Pictures (from lesson 2)
- Song: "If I were a Tree" https://youtu.be/7mt79JW9u18
- A selection of leaves, seeds and different bark, collected BEFORE the lesson
- Pictures of leaves, seeds and bark (Pictures 1 to 4 from lesson 3)
- A3 paper x several sheets
- Strong glue and bushes

Steps	Time	Teacher's Activities					
Step 1	10min	Introduction:					
		Greet the children with a reminder of their badges. Hello Conservation Super Heroes! Did any of you tell your families that you are a Conservation Super Hero? Allow the children to explain if they told their families anything about what a Super Hero does, and what a Conservation Super Hero does (protect the Earth, protect the Planet, keep nature safe, look after and protect all the plants and animals in a food chain).					
		Recap on Lesson 2 Food Chains (Spend some time on this so we are sure that children really understand this)					
		• Hold up a picture of a food chain: O Can any of you tell me what this is? Allow children to give a few examples of food chains. Remind the children that all food ultimately comes from plants, which get THEIR food from the sun. Ask the children to start with a plant and make a few examples of food chains. Remember: as long as the animals do indeed eat the things the children say, there are thousands of options of correct food chains!					
Step 2	5min	 Song: "If I were a Tree" Let's listen to this song together – play song "If I were a tree what a tree I'd be" What is this song about? Allow children to give their answers. Expect answers like: A tree, all the parts of a tree Ask the children to stand up and join you in singing and dancing with the song. You start the song and act it out, with the children dancing and singing. Encourage them to be silly and have fun! The more fun you have, the more fun they'll have. Re play the song again if you like. 					
Step 3	10min	 Discussion: Today we are going to talk about trees: Do any of you have a favourite tree? Where is that tree? At your house, at your homestead, on your street, maybe even here at school? What makes the tree special to you? Ask the children to describe the tree- its size, its leaves, its fruit, etc. 					

Tell the children your favourite tree (ideally an indigenous Eswatini tree, like a marula), eg. My favourite tree is huge, it's got many branches. Sometimes when it's very hot, I sit under it, and it gives me shade, but I need to be sure to look up at the branches and make sure it's not bearing fruit otherwise one could drop on my head! It makes fruit once a year. I like picking the fruits from the ground, peeling them and eating them – yummy and juicy. In the winter months, my favourite tree loses all its leaves. Do any of you know the name of my favourite tree? It's a Marula Tree! This helps the children see YOUR excitement about nature and trees. Show pictures of trees and talk about the pictures. Notice how beautiful the trees are, how some are big, some are small, and some even look like they have shapes in the tops, like a circle, or a triangle or a rectangle. Show some of the seeds and leaves you collected, along with the pictures. Notice the texture (smooth or rough), notice the colours, notice how some look like they blow nicely in the wind, and others look heavy like they drop straight to the ground. Notice: o Flowers, fruit and seeds o Bark Shape 5 min Take a walk outside to a specific tree that you identified in advance. Look at the tree and touch the tree; exclaim how beautiful the tree is. Look for another tree to go look at and touch. Ask the children how they feel when looking up at how big it is, or how they feel hugging the trunk. Expect answers like: it's beautiful, it's sooo tall, it's a shape. I love this tree. Emphasize how much you also love trees; this helps the children start to love nature and appreciate it. Activity - Leaf, Twig, Bark and Seed Collage Step 3 10min In advance, lay out big sheets of paper, with cups of glue and brushes for the glue. Tell the children they'll be working in smaller groups. Walk with the children to collect different leaves, bark, seeds, twigs and flowers. Tell the children not to pick flowers or break branches but rather find things on the ground. Walk around with the children, exclaiming at all the beautiful things you're finding, to help the children feel inspired by nature. Encourage the children to find lots of different things- little twigs, big leaves, little leaves, different colour leaves, etc. Put the children in small groups to make a collage from the different items. When the children have finished collecting, ask them to glue their items onto their page, to make a beautiful piece of art. They do NOT have to make the art "look like" a tree, or a flower- there is no right or wrong way to do this. Encourage them to be creative and enjoy themselves.

LESSON 4: TREES and ME (2: Continued from 1)

Objectives: At the end of the lesson, children will be able to:

- 1. Explain why trees are so important to our survival, and in nature
- 2. Come up with ideas to avoid deforestation

Type of lesson: Creative Art – Discussion

Lesson Aids/Materials:

- Pictures 1 to 8 (from lesson 4)
- Video: Education Video for Kids: https://youtu.be/517u5FMQxHA
- Song "If I Were a Tree" (from Lesson 3)

Steps	Time	Teacher's Activities					
Steps Step 1	5min	 Introduction: Greet the children as Conservation Super Heroes! Can you remember our song about trees? Let's sing it together, and dance! The more fun you have, as the teacher, the more fun the children will have. Did you notice any new trees around your house? Allow children to talk about their discoveries the day before. Ask the children: As Conservation Super Heroes, did you talk to your family about what you learned yesterday? Remember part of our job as Conservation Super Heroes is to talk to everyone about how to conserve, or protect, nature. Allow several children to respond. Today we are going to talk about why trees are so important to us – and why they're important in nature. 					
Star 2	<i>5</i> :	Why do you think trees are important? Allow the children to give ideas (they're part of the food chain, they're beautiful, they're part of nature, they give us food and building materials). Dispute the chart with a chiral tree.					
Step 2	5 min	Play the short video clip on trees					
Step 3	10min	Let's chat about what we saw in this video. Why are trees so important to us? What do trees give us? What do they do in nature? • Encourage the children to discuss: o Trees give us oxygen (air to breathe) o Trees produce food for us o Animals eat trees (kudu eat leaves and bark) o Trees provide shade for humans and animals o Humans make paper from trees o Humans use wood for building materials o Trees provide homes for animals. Can you think of any animals that live in trees? Birds, snakes, bushbabies, lots! • Let's talk about what we see in Eswatini: o Show the picture of the woodpile and the truck with firewood in it: o Have you seen anything like this before? Allow children to answer.					

- Yes, we see woodpiles like this all along our roads. In fact, I saw this truck this morning coming out of a dirt road full of wood. I also use cut wood at home to make fires.
- What do you think people are doing with the wood?

Expected answers: people use trees to cook, warm themselves, to build

- What would happen if we cut down ALL the trees? This is called Deforestation. Can you say this with me? Let's clap it.
- Without trees, we wouldn't have clean air to breathe. Trees give us oxygen to breathe.
- Without trees, we wouldn't have food, like apples, mangoes, oranges, marulas, etc.
- Without trees, where would the animals stay? They'd lose their homes.
- Without trees, how would animals that eat tree leaves and bark get their food?
 - It would be a DISASTER! Demonstrate to the children your horror if trees were all cut down.

Show picture from lesson 1 on deforestation

• What can we do as Conservation Super Heroes to make sure that people protect trees, even though we have to use some for building and cooking?

Allow the children to share ideas.

Ask them encouraging questions: what if we all planted a new tree for every tree we cut down? What if we planted 2 trees for every tree we cut down? This would be wonderful, and it would help keep nature safe and protected.

• Next time you see cut wood, make sure you tell everyone you are with that that for every tree we cut down we should plant another one, or two. Let's rather collect wood from dead trees than cut living trees down!

Step 3 | 10min

Activity

• Collect twigs from the ground and see if you can form letters with them.



LESSON 5: IMPORTANCE OF WATER

Objectives: At the end of the lesson, children will be able to:

- 1. Explain the importance of water to all living things
- 2. Explain ways to conserve water
- 3. Understand where water comes from, in a simple way

Lesson Aids/Materials:

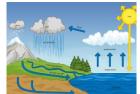
- Pictures 1 to 5 from lesson 5
- Activity: Freddy the Fish
 - o 5 fish cut out of sponges (assuming there are 5 small groups of children in the class)
 - o 5 containers with the sponge-fish inside, half filled with water
 - o For each group, 4 small containers, filled with: a) soil/sand, b) coarse salt and small stones, c) sweet wrappers and crisp packets cut up into small pieces, d) green food colouring mixed with some water (to show polluted water).

Steps	Time	Teacher's Activities						
Step 1	5 min	Introduction: • Hello Conservation Super Heroes! • Have you been a Conservation Super Hero since we last met? Tell me how! • Encourage the children to talk about the ways that they shared what they learned with their families / friends • Did they perhaps do something that makes them a Conservation Super Hero? Spend some time on this, so they feel encouraged to talk and do things outside of school. You can also mention a conversation you had, or something you did (telling someone not to litter and put rubbish in a bin,						
Step 2	8 min	 Discussion: Show picture of what plants need to survive - Can you remember what all plants need to survive? Review this. Show picture of a food chain - Remember how important plants are in the food chain? Plants are the base for the whole food chain! BUT what would happen if we didn't have WATER? Plants would die. We humans also need water! We wouldn't survive, nor would animals. Look at this photo. What do you see? Ask the children to describe what they see. Yes, the brown-soil side (on the right) has no water, and the soil is cracked and dry. There are no plants. The other side is nice and green (on the left), with a healthy, leafy tree and nice grass The green side has water, which all living things need! WATER IS ESSENTIAL FOR US ALL TO SURVIVE SO WE NEED TO CONSERVE OR LOOK AFTER OUR PLANET'S WATER! 						

Step 3 | 9 min

- Where do we get water from?
- Show the picture of the Water Cycle.

Very briefly discuss the water cycle. Water is in lakes and dams and rivers. This water does something called evaporation: with the heat from the sun, this water gets sucked up into the sky and



clouds, and then it stays in the clouds, until it comes down as rain, and it re-fills the lakes and dams and rivers.

- This is called the water cycle, and the water on our Planet Earth goes around and around and around in this water cycle. Explain it again.
- Show pictures of rivers and dams from previous lessons.
- Let's look at new pictures. What do you see?

Expect answers like, the water is dirty and gross.

• There is bad, dirty, polluted water coming out of the pipes and going into the river and lake. That must be making the river and lake dirty. Look how we humans **polluted** the water by pumping all the dirty water that we used in factories, and even sewage from our toilets, into our dams and rivers. Maybe the dirty water even has bad chemicals or oil from our cars and tractors in it.





• What do you think happens when we pollute our water like this?

Expected answers: Yuk! We'll get sick if we swim in this water or drink it.

- Another way we pollute water is by **littering!** Sometimes people throw their rubbish into the water, and sometimes litter on the ground gets washed by rain and floods into rivers and lakes. Show pictures from lesson 1. Emphasise how terrible this litter or pollution is for all of nature, including for humans and animals.
- What else do we need water for? Ask the children to share ideas and act the ideas out.
 - O Demonstrate as the kids give ideas. Pretend to drink, wash, cook, brush teeth, swim etc. Ask the children to make these actions with you.
- What does it mean to **CONSERVE WATER**?
 - To conserve water means to use our water supply wisely and in a responsible manner. This means we <u>cannot</u> waste water!
 - We must learn how to keep Earth's precious water pure and clean. We must never pollute water, and we must never waste it, because every living thing depends on water for survival- plants, humans, animals!

Step 4 8min

• Let's think of ways we can be Conservation Super Heroes by saving water: Allow children to come up with different ideas. Ask them questions to help come up with more ways:

- o Always close taps.
- If you see a tap running, or dripping, or leaking- even tiny drips- close the tap. Little drips add up into lots of wasted water!
- o If you see a pipe burst and water streaming out, tell an adult, quickly, to fix the problem! This is the same if you see a water tank leaking, or a hosepipe running for no reason!

- Never use your toilet as a waste basket. Litter and rubbish belong in a rubbish bin.
- O not let the water run while brushing teeth. Always turn off taps straight away when you're not using the water.
- o Take short showers instead of tub baths.
- o If you must use a bathtub, close the drain before turning on the water and fill the tub only half full.
- O Do you play with water at school? What do we do with the water when we are done?
 - If you have leftover water from fun activities, make sure you use the water for other activities, such as watering the garden or washing your toys etc. This is another great way to be a CONSERVATION SUPER HERO- reuse water!

Step 5 | 10min | Activity- Thinking about pollution in our rives and dams

In advance, prepare the following for each small group:

- 1. Sponge: cut out in the shape of a fish, in water
- 2. For each small group, have small containers with the following: a) sponge-fish in a few centimetres of water, b) soil/sand, c) coarse salt and small stones, d) sweet wrappers and crisp packets cut up into small pieces, e) green food colouring mixed with some water



- Put the children in small groups, around a table, with their sponge-fish in water, and the other small containers on the table.
- Tell the story of Freddy the Fish:
 - Once upon a time, there was a very happy bream fish named Freddy. See Freddie swimming?
 - Freddy lives in a big river that is always very clean. The water is crystal clear and lovely, with some beautiful pools, and there are many, many fish and insects and beautiful river plants. The river is Freddie's home, and he loves it here!
 - o One day, Freddy decided to explore the river so he started to swim downstream, swimming, swimming, swimming.
 - O As he swims downstream in the river, the water starts to get dark and murky, hard to see through. What is happening? Oh no! A road construction crew is building nearby and their leftover soil is washing into the river! (Tell the children to each take a pinch of soil and dump the soil on top of Freddy). Oh no, poor Freddie!
 - o Freddy tries to swim through the river, but the water is getting dark and hard to see through. As he is swimming, he feels something very rough on top of him it's terrible rubbish from a construction site- rocks and old bricks and concrete. It's getting harder and harder for Freddie to swim! (*Tell the children to each throw coarse salt and a few stones over Freddy*).
 - o Freddy is really struggling to swim now and decides to come closer to the surface of the river, but he can't see the surface of the river

because some horrible little children have thrown their plastic lollipop papers and crisp packets into the water (*Tell the children to each throw plastic sweet wrappers on top of Freddy*). This part of the river is terrible! Freddie wants to go home to his beautiful, clean part of the river upstream.



- All of a sudden, Freddie is struggling to breathe the river water feels slippery and uncomfortable- awful! A farmer is dumping leftover chemicals and tractor oil in the river- ugghhhhhhh! (Tell the children to each pour a few drops of the green food colouring into water)
- This is terrible and all too much for Freddy, he can't move his tail or his fins, and his gills feel awful and tight The river is too, too polluted- there is NO way he could live here!
- What a sad story for Freddie the Fish! What could we Conservation Super Heroes do to make the river clean for fish like Freddie? *Ask the children for ideas*.

Expected answers:

- We could clean up the river and make it safe again and not put our litter in the bush.
- We could tell the builders not to throw their trash and bricks into the water.
- We could talk to the farmers and tell them that oil and chemicals don't belong in the river.

These are all good answers. There are many ways that we Conservation Super Heroes need to speak for the Earth- to defend the Earths's rivers and forests, always telling our friends and family that we need to keep our Earth clean and healthy- for humans and all other animals! Let's also remember to never, never throw our own litter into the bush, where it can wash into a river or stream and pollute it!

Allow to children to clean up Freddie and his river by washing out his tub and sponge (and putting the rubbish/litter in the bin).

LESSON 6: ANIMALS, OUR FRIENDS

Objectives: At the end of the lesson, children will be able to:

- Understand and explain the importance of all living creatures, no matter how small
- Have compassion and empathy for all living things

Lesson Aids/Materials:

• Story book or video on "Hey Little Ant" https://youtu.be/ehH6l6v5sYM

Steps	Time	Teacher's Activities							
Step 1	2 min	Introduction: Hey Conservation Heroes, it's time for a story!							
Step 2	5 min	Story Time							
		Before Reading or watching the video, ask:							
		O What do you know about ants? Where do you usually see ants, and what do you do when you see one? Expect answers like: around food/crumbs, they come into our kitchen and steal our food, on the ground, I squish them							
		O Look at the cover illustration for the story. Ask the children: what do you notice about the size of the boy and the ant? (<i>The boy is so big compared to the ant</i>). Ask the children: can you imagine what it feels like to be so small? <i>The goal is to get the children thinking about others, and feeling empathy for animals</i> .							
		Watch video or tell the story: "Hey Little Ant"							
Step 3	9 min	After reading:							
		• Ask: The book ends with the question, "What do you think that kid should do?" Help the children have a discussion. Remember the goal is to get the children to feel care, consideration and empathy for other creatures.							
		• Make sure to be a role model and show <u>your</u> empathy and care for the ant. During the discussion, tell the children what you would do: I respect that ant. The ant is part of nature! The ant also has to live, and have a home, and eat, and find food for his family. Maybe we people are living on top of the ant's home!							
		• Again, ask the children what would they do? Would they choose to step on the ar and kill it, even though the ant has a life, a family, and friends? Do they feel sad for the ant who is just trying to feed himself and his family? Ask the children who has the right to live there- the ants or the people or all of us?							
		• Ask: How does the world look from the boy's view? <i>Expect answers like: It looks like the boy owns everything. The ant is so small, the boy doesn't even have to think about the ant.</i>							
		• Ask: How does the world look from the ant's view? Expect answers like: the boy is so big and scary. The ant has to hide from the boy to stay safe.							
		Connect: Explain to the children that this story challenges us humans to respect the lives of animals- even the smallest animals like ants- and have compassion for other living things, even the smallest things.							

		• Even though ants are such small creatures, ants are important in our environment						
		 Ants are like mini ploughs, and they till up the soil, allowing water and oxygen to reach plant roots. 						
		 Ants take tiny seeds down into their tunnels to eat, and these seeds often sprout and grow new plants. 						
		o Ants are part of the food chain; we need ALL parts of the food chain.						
Step 4 15	5min	 Let's think about the food chain. Show the pictures. What do ants eat? Smaller insects (alive or dead), seeds, bits of fruit and plants. What animals eat ants? Birds, other insects, lizards, anteaters, ardvaarks, frogs, spiders, in some places, even humans! Imagine now that we don't care about ants. Imagine we humans kill all ants. What would happen in the food chain to the birds, the other insects, the lizards, the spiders? The whole food chain would go out of balance. Ask the children if they would like to watch the story again and think about how it feels from the ant's view. 						
2r	min	 Now that we know how important ants are: WOULD YOU SQUASH THAT ANT UNDER YOUR FOOT? No! Remember, as Conservation Super Heroes, our job is to speak out for the planet, for all animals- even the smallest ones- and help keep them safe! 						

LESSON 7: ANIMAL HABITATS AND HOMES

Objectives: At the end of the lesson, children will be able to:

- 1. Explain what a habitat is
- 2. Give examples of different habitats
- 3. Articulate why it's important for humans to conserve natural habitats

Lesson Aids/Materials:

- Pictures 1 to 9 of lesson 7
- Pictures from lesson 1
- Pictures for the quiz

Steps	Time	Teacher's Activities							
Step 1	5 min	Introduction:							
		Hello Conservation Super Heroes!							
		 Can you remember anything about the story that we read yesterday? Remind the children about the story and how we are learning to be respectful and considerate of other animals. 							
		O Did any of you see an ant today? What did you think, or do, as a Conservation Super Hero? Did any of you bend down and see how the world looks to an ant? Did you imagine how the ant was finding food and water? Expect answers like: I did not step on it! I bent down and looked.							
		Today we going to talk about where animals stay.							
		Ask children about where they think animals stay.							
		Possible answers – in the bush, on the farm, at our homestead.							
Step 2	15min	Discussion: What is a Habitat:							
		• Where we live is called our home. We live in houses and flats. Some of us live in towns and cities. Some of us live in the countryside. Where do you live? The sort of place you live is called your habitat. All animals have habitats. Animals live in all sorts of different places, from hot deserts, to forests, to snowy/cold places.							
		• A habitat is the home for an animal or a plant. A habitat provides shelter and food. Almost every place on Earth—from the hottest desert to the coldest, icy places—are habitats for <i>some</i> kinds of animals and plants. Habitats include plants, rivers, streams, soil, sand, and rocks.							
		• What is our human "habitat"? We live in many kinds of places around the world. Let's look at some different habitats:							
		Show pictures of different habitats, talk about the characteristics of each							
		Grassland (savannah): lots of grass, with a few trees							

- Desert: sandy and hot, few trees, no shade
- Forest: Lots of trees giving shade, much sun shining through (picture from lesson 1)







- Ocean: salty water, coral reef, waves (picture from lesson 1)
- River: fresh water, moving water, rocks, rapids (picture from lesson 1)
- Icy polar habitats: very cold, lots of frozen water around, snow

,29-1-1

Show pictures of different animals

• Let's see if you can name these animals and tell me which habitat they live in?

Polar bear – icy/cold

Giraffe – grassland

Camel – dessert

Toucan Bird – forest

Dolphin – *ocean*

Trout fish – river

- Why is it important to protect natural habitats?
 - Healthy habitats allow us, and all other animals, to survive, to get enough food to eat, to find shelter, and live.
- How can we Conservation Super Heroes protect natural habitats?
 - Don't use poisons in our gardens, which kill insects that are part of the food chain
 - o Plant trees and plants
 - o Don't throw waste and litter in the bush- put it in bins where it belongs
 - o Reuse things, like empty bags and tins, so there's less waste in the world
 - o Conserve water by turning off leaking taps
 - o Respect other living things, even the smallest things, like ants

Step 3 | 10min

Activity: Habitat Quiz

This is a game about where different animals make their homes. Show the pictures and then give the possible answers. Allow the children to answer and say why they think it's a good habitat for that animal.

1. What is this sheep's habitat? Why does it like to live there?

Desert

Sea

Grassland (because it has lots of grass/food to eat)

Forest



2. What is this gorilla's habitat? Why does it like to live there?

Sea

Desert

Grassland

<u>Jungle/Forest</u> (because it has trees to use as shelter, and branches/leaves/fruit to eat)



3. What is this frog's habitat? Why does it like to live there?

Desert

Sea

Mountain

<u>River/Stream/Pond</u> (because there is water to swim in, insects to eat, nice places to lay eggs and hide)

4. What is this scorpion's habitat? Why does it like to live there?

Sea

Forest

Grassland

Desert (because it likes to dig, hide in the sand, and find insects to eat)



5.A crow built this nest. What is the crow's habitat? Why does it like to live there?

Wetlands, with ponds and lagoons

Desert

Ocean

Forest (because it can build its nest and find insects, spiders, snakes to eat)



6. What is the dolphin's habitat? Why does it like to live there?

Woodland

Grassland

Mountains

Oceans (because it lives in salt water and eats fish)



7. What is the polar bear's habitat? Why does it like to live there?

Desert

<u>Icy</u>, snowy polar areas (because it lives on ice, needs to swim in cold water and eats fish)

Mountains

Grassland



8. What is the camel's habitat? Why does it like to live there?

Jungle

<u>Desert</u> (because it can live in very hot places with very little water) Wetlands

Sea



9. This animal is called a Mountain Goat. What is its habitat and why does it live there?

<u>Mountains</u> (because it is a very good climber and is good at avoiding predators, like wolves and bears, in the high mountains)

Sea

Desert

Grasslands



10. What is the habitat for these fish? Why do they like to live there?

Desert

Mountains

Sea (because they need salty water, can find good hiding places in reefs, in the sea)



Step 4	10min	Let's go for a walk and see if we can find any creatures that have made our school
		garden their habitat, their home.
		Walk around the school grounds with the group, carefully look under rocks, look up into the trees etc. Point out birds, ants, spiders, lizards, insects in their habitats.

LESSON 8: CAMOUFLAGE

Objectives: At the end of the lesson, children will be able to:

- 1. Understand and explain what camouflage is
- 2. Understand how animals adapt to their habitats using camouflage
- 3. Recognize animals in their habitats even though they are camouflaged

Lesson Aids/Materials:

• Pictures 1 to 8 (from lesson 8)

Steps	Time	Teacher's Activities						
Step 1	5min	Introduction:						
		Hello Conservation Super Heroes!						
		 Can you tell me: what do we call the place where animals live? Habitats 						
		 Can you give me some examples of habitats? Sea, rivers/streams, mountains, forests, deserts, icy/snowy polar areas, grasslands 						
Step 2	8 min	Discussion:						
		Today we going to learn a new word: Camouflage						
		• Do any of you know what camouflage means? Camouflage means to hide, or disguise, by blending in. Things can blend in, or camouflage, by being the same colour, or pattern, or texture.						
		 Select an object in the classroom that matches the color of one of the students' shirts. Call the student forward. 						
		 Hold the object near the student's shirt and ask the other students to name what the object is, for example, a red block against a red shirt. 						
		Next, select the same object in a different color, for example a black block against the red shirt, and ask the students to tell you if it is harder or easier to see than the red one. They should be able to say that the red block is harder to see, because it "hides" against the red shirt. If necessary, practice a few times with other colors.						
		Have the class repeat and clap the word camouflage several times.						
		 Tell students that many animals are naturally camouflaged into their environments, and some animals even camouflage themselves by changing color. Explain that an animal's ability to camouflage helps it to be safe, or hide, which is like a game of hide and seek. Camouflage helps animals to hide better. 						

	nimal "hiding" o	cheetah in grass					
		habitat camou • Why w	usion: Can you? Can you se flage, into the yould an aning stike: to pro	te how the anine places they nal or insect votect them, so	mals use their live? vant to hide, or	apt to their enviro colours and patto camouflage? eaten, so they ca	erns to hide, or
Step 3	9 min	to camouflage Ask the childr colour? No!	en: would a g Would a yell Would a red ur camouflag	green colour co ow colour car colour camou ge with other	dark colours lil	th a red	

LESSON 9: INTERESTING FACTS: SPECIAL ANIMALS

Objectives: At the end of the lesson, children will be able to:

- 1. Explain traits of certain African wild animals- elephant, cheetah and giraffe
- 2. Name the "Big 5" as an exciting part of understanding African nature
- 3. Explain how the "Big 5" came to be
- 4. Summarize what Conservation Super Heroes can do to protect or conserve nature

Lesson Aids/Materials:

- Pictures 1 to 8 (from lesson 9)
- Activity
 - o Templates of animal printouts
 - Scissors
 - o Glue
 - o Crayons / Coloured pencils

Steps	Time	Teacher's Activities
Step 1	5min	Introduction:
		Hello Conservation Super Heroes!
		 Today is our final lesson. Have you enjoyed being Conservation Super Heroes?
		O What have you enjoyed the most?
		 Will you continue being Conservation Super Heroes for the rest of your lives?
		• To be a role model, tell the children that you will always be a Conservation Super Hero, for the rest of your life, and that you want to always protect nature and our planet and all its habitats, rivers, mountains, and special places, for humans and all animals.
Step 2	15 min	Discussion:
		• Can you name some wild animals that live in Africa? Elephant, lion, giraffe, impala, zebra, kudu, warthog, crocodiles, all sorts of snakes, all sorts of birds, all sorts of insectsso many things! There are also thousands and thousands of wild animals that live outside of Africa.
		• Did you know that Africa is home to some VERY special wild animals?
		• In Africa we have some of the:
		 Biggest Fastest Tallest animals Can you name some of the biggest, fastest and tallest animals? Allow the children to think and answer without saying if they or right or wrong. Let's see who answered correctly.







- Show pictures:
 - o Elephant is the ... largest LAND animal (many whales are bigger)
 - o Cheetah is the ... fastest LAND animal (peregrine falcons are faster)
 - o Giraffe is the ... tallest animal.
- Talk about each animal and look at the photos.
 - O Let's look at the elephant.
 - Do you see the big tusks? These are actually giant teeth. These tusks never stop growing. Can you imagine?
 - Elephant eat about 12-18 hours a day. This is like eating non-stop from 6 in the morning to past bed time.
 - Elephants use mud to protect their skin, and they use their trunks to throw mud on themselves.
 - Elephants eat a lot AND make a lot of poo! This is very important in nature. The poo has lots of nutrients in it, which keeps the soil healthy for plants, and it has lots of seeds in it that come from the plants and trees that elephant eat. When elephants poo, the seeds they eat get moved around, so new plants can grow in new places, which is really important in nature! Isn't nature amazing?
 - Let's all stand up and pretend to be elephants! Let's use our trunks to suck up some mud and splash it on our backs! Let's make a trumpeting sound! Let's use our trunks to reach up high and grab some branches to eat!
 - o Let's look at the cheetah.
 - See all of their spots? They use this spotted coat to camouflage in the bush's tall grass. Do you remember what camouflage means (hiding or disguising colours and patterns).
 - They can run at about 110 kilometres per hour for short distances. When you're next driving somewhere, ask your parents to tell you when the car is going 110 kms/hour- this is how fast a cheetah can run for a short distance!
 - Cheetah have excellent eyesight for hunting, which they do during the day (not at night like lions).
 - They also have little black stripes under their eyes- this helps keep the glare out of their eyes from the sun.
 - Do you know that cheetah tails are also very important? It helps control their steering and balance when they run so fast.
 - Let's go outside and have a cheetah sprinting race! Take the children outside and line them up. Tell them to spread their arms wide apart so they give each other plenty of space and don't crash into each other. Stand 30-40 metres away and tell them 3-2-1- GO, sprint like cheetahs! Do that 2-3 times. Go back inside and gather their attention. Have the children sit and copy you making a clapping pattern, quietly, until they're ready to pay attention again.
 - O Do you remember we were talking about the biggest land animal, the elephant, and the fastest land animal, the cheetah, and now we're talking about the tallest animal! Let's look at the giraffe.
 - Look at that tall neck! Why do you think they have such tall necks? Yes, it's to reach up high. They can reach trees and branches and delicious leaves that other animals can't reach

reach.

Do you know what else giraffes use their necks for? Fighting!

They smash their necks into each other to fight.

They live in groups, and the babies nurse from the mothers for about 6 months before they start to eat leaves.

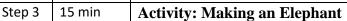
- We also have what people call "THE BIG FIVE" in Africa
- Do you want to guess what the Big Five are?

Allow the children to give answers without saying yes or no.

• The Big Five are called this because they are some of the most dangerous for humans to hunt.

- They are the:
 - 1. Lion
 - 2. Elephant
 - 3. Leopard
 - 4. Rhino
 - 5. Buffalo

• As Conservation Super Heroes, we need to be sure to protect, and conserve, these special animals, like all others. We conserve and protect these because they're important in nature, and so that one day your children will be able to see these beautiful animals.



Children will make cut out elephants. Print the cut out pages, 1 per child.

Allow the children to cut and glue the shapes.

Step 1: Cut out all the shapes.

Step 2: Glue the rectangle on the paper, in the middle of the paper.

Step 3: Glue the 2 biggest circles above the rectangle, so they're almost touching in the middle.

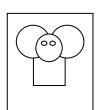
Step 4: Glue the 3rd circle for the face.

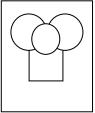
Steph 5: Glue the 2 small eye circles.

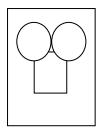
Step 6: Show how to roll the "trunk" so it curls. Glue this BUT ONLY AT THE TOP SO THE

CURLED PART CAN CURL.

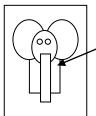
Step 7: Colour in!







Steps 2 and 3



Only glue at the top of the trunk so the bottom can curl like a real trunk!



Discussion of our unit on CONSERVATION!

• Ask the children to remind you what conservation means, especially when we're talking about conserving nature and our planet Earth.

To look after, or protect, all of nature- our plants, trees, animals, air, rivers, water- everything!

• Ask the children what it means to be a Conservation Super Hero? Can they tell you things they can do to be Conservation Super Heroes?

We can use our voices to tell people that we need to protect and conserve nature and the Earth.

We never litter- we always put our litter in the bin!

We never pollute our rivers.

We try to re-use things like bags and bottles and tins so there's less waste in the world.

We plant trees. We try not to cut down big trees.

We always conserve or save water and turn off leaking taps and faucets.

We respect nature and everything in it, even the tiniest animals like ants because they all have an important reason for being here, just like us..

• Ask the children if they remember what a food chain is? Can they explain what happens if one of the animals or plants in a food chain disappears?

It is like a real chain. It is a group of plants and animals, linked, based on what they eat. It is a chain that is about food. We talk about food chains in nature to show what eats what.

If we lose one link in the chain, the whole chain gets broken. Every plant and every animal is important in nature because of food chains! Everything needs everything else.

• Ask the children if they remember what a habitat is? Can they tell you about some habitats?

Habitats are like homes in nature. There are forest habitats, with lots of trees, and grassland/savannah habitats with lots of grass and a few trees, there are desert habitats that are very hot and dry and sandy, and there are polar/icy/snowy/cold habitats. There are ocean habitats with salty water, and river/stream habitats with fresh water. It's important that we protect all of these habitats in nature!

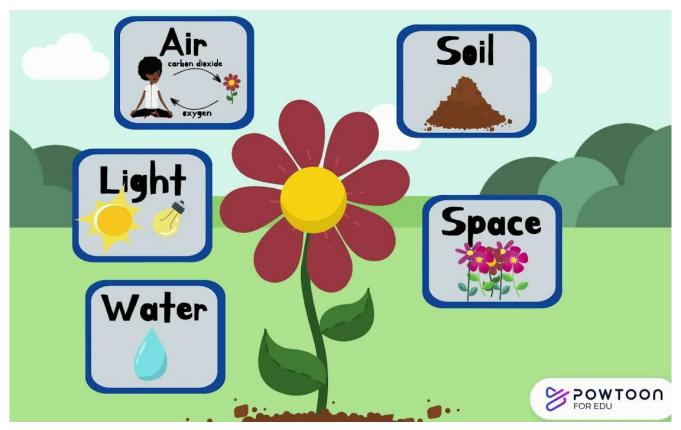
Congratulate the children on being CONSERVATION SUPER HEROES and encourage them to tell their families and friends about how to be a Conservation Super Hero everywhere they go!

Annex: To Print

Lesson 1 Printables









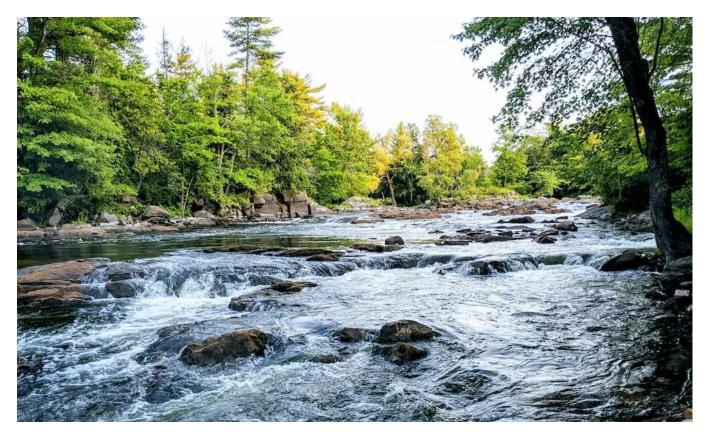


























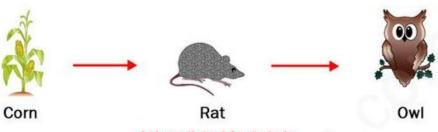




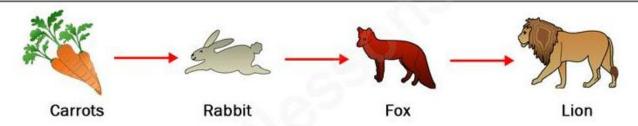




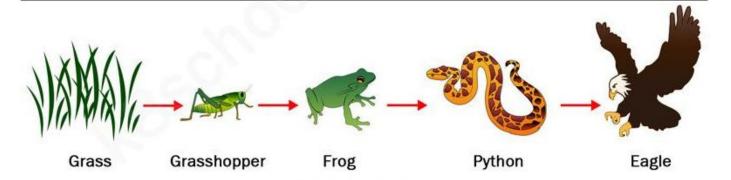
Food Chains



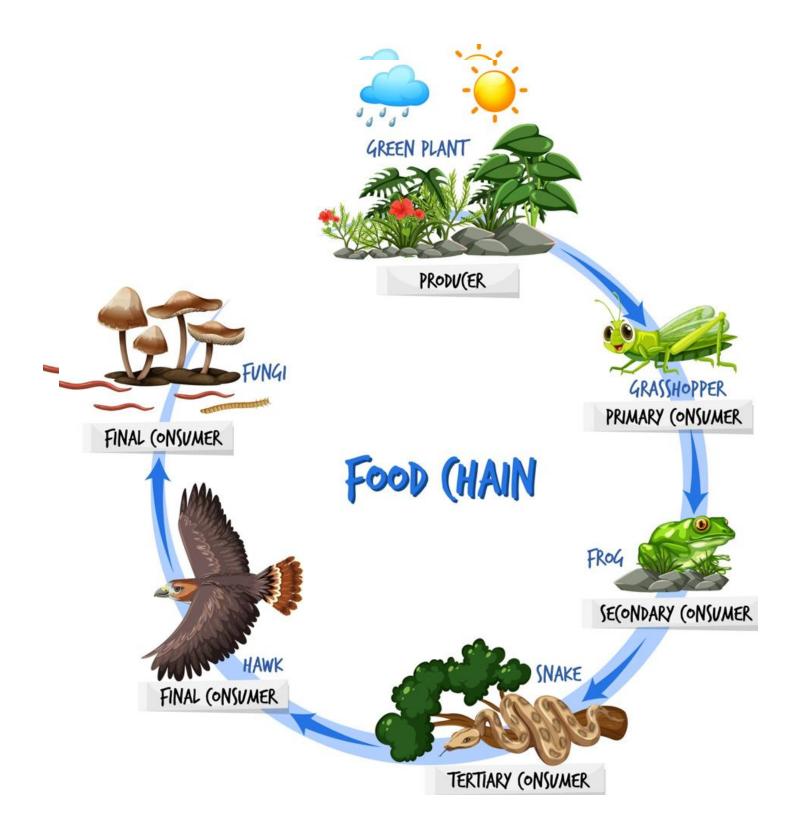
A three linked food chain



A four linked food chain

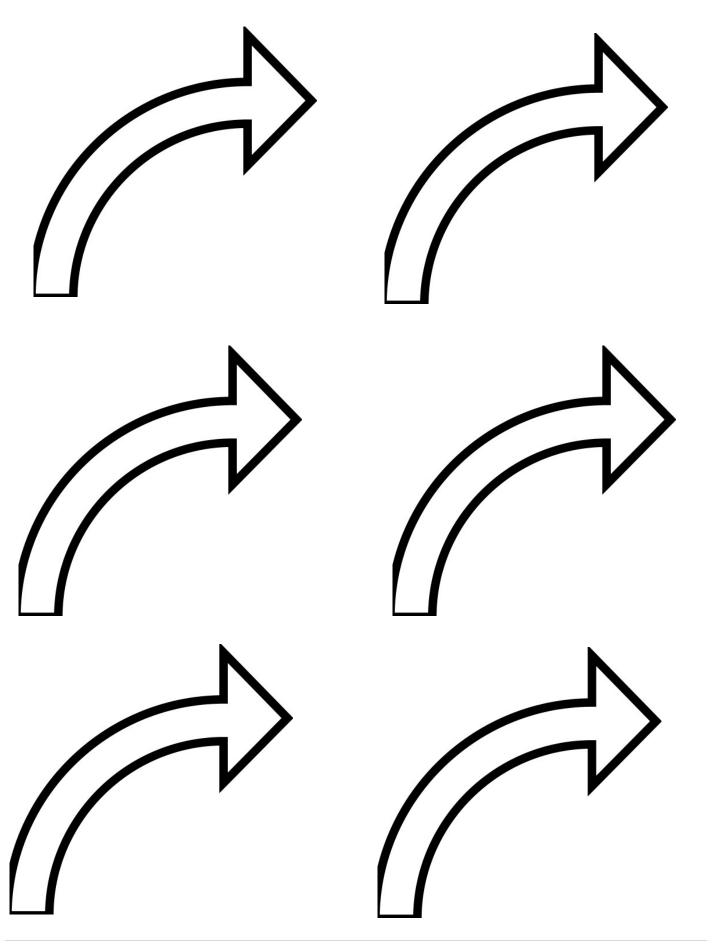


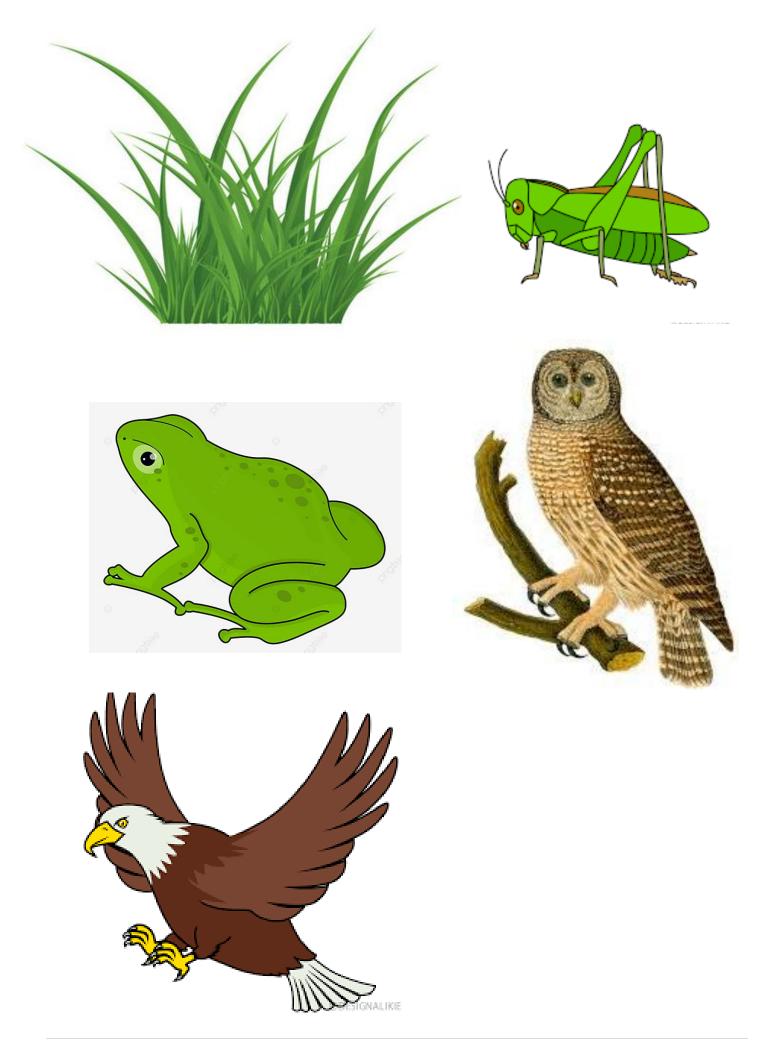
A five linked food chain

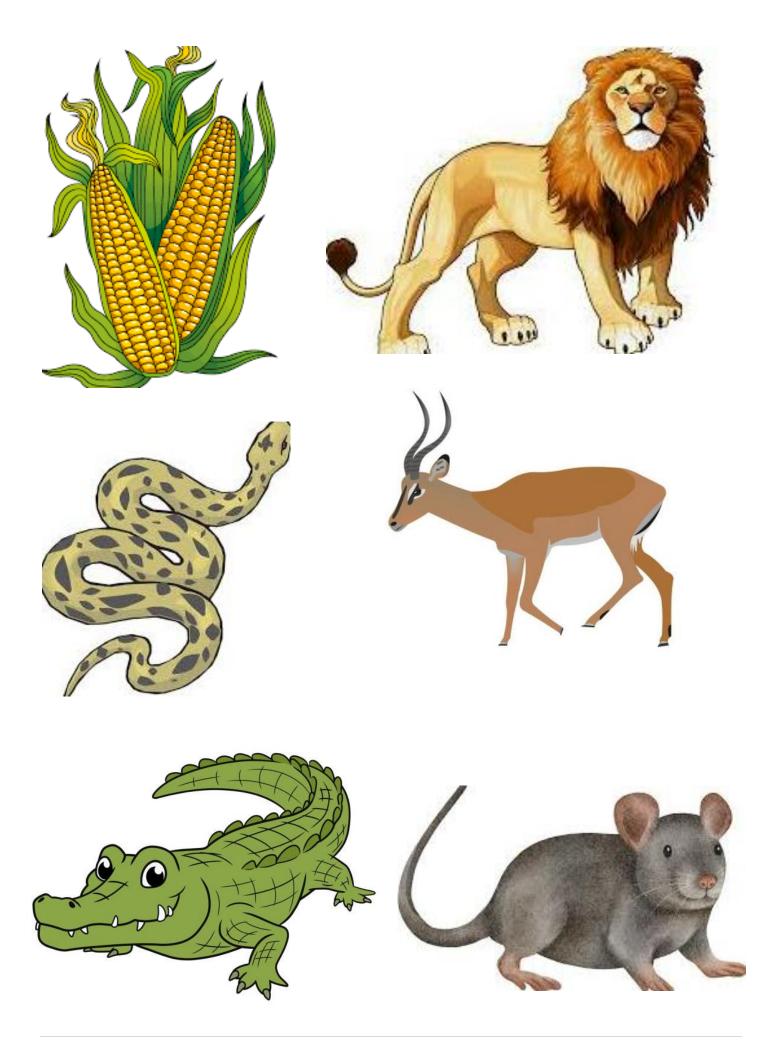


It's a bit tricky for children to understand the mushrooms and fungi in the food chain. Mushrooms and fungi grow in soil that is full of nutrients. When plants and animals die, like the snake, or the eagle, or the frog, they put nutrients back into the soil, which helps new things grow, starting a new food chain.

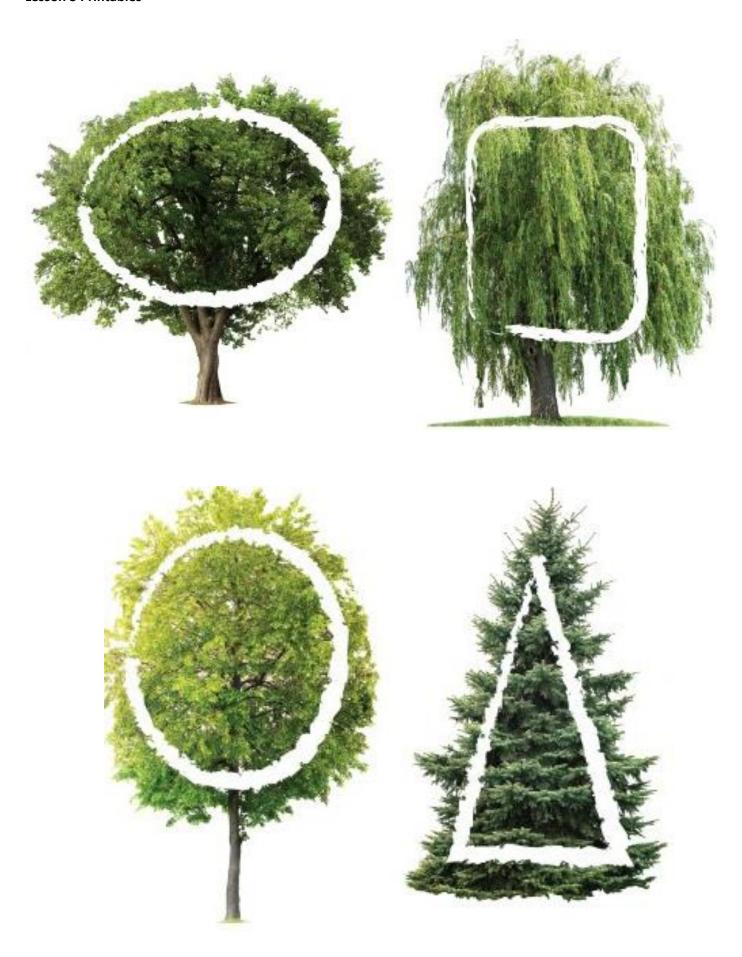
Don't worry about the labels (producer, primary/secondary/tertiary/final consumers); just focus on what eats what, staring with plants, which grow with energy from the sun.







Lesson 3 Printables









Lesson 4 Printables















Lesson 5 Printables



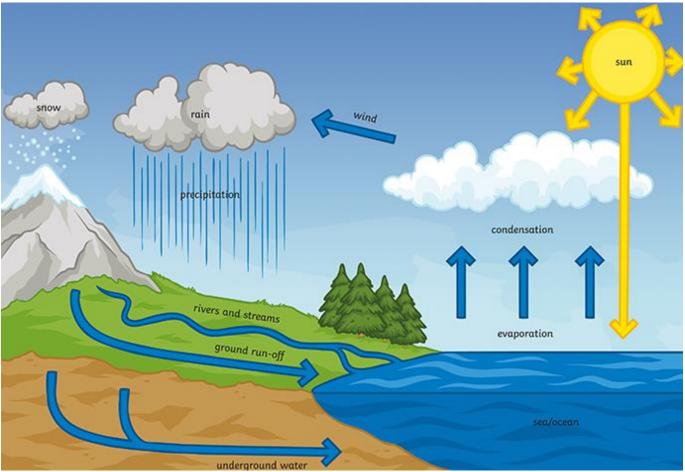








Image of Freddie the Fish exercise



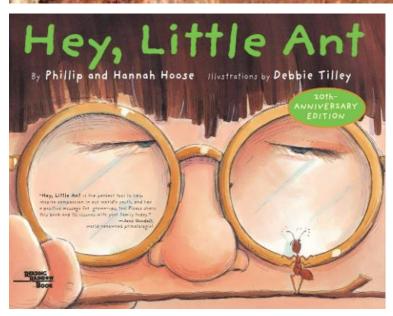


Lesson 6 Printables



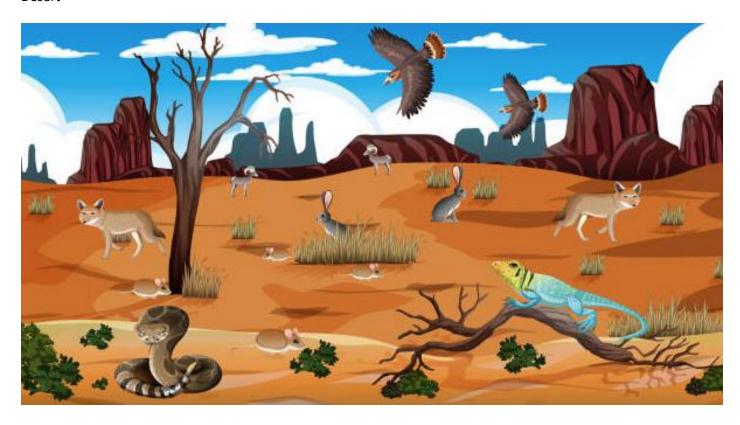




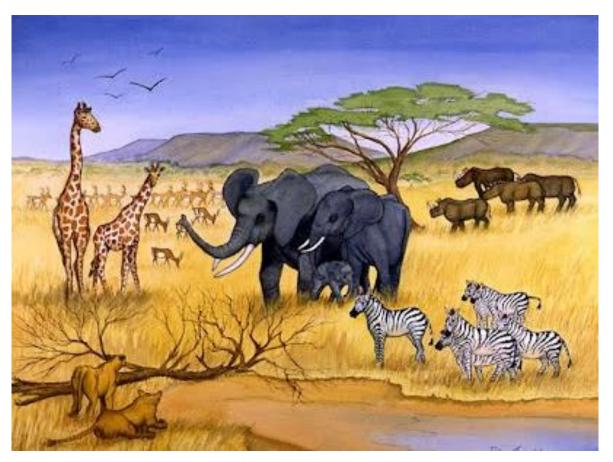


Lesson 7 Printables

Desert



Grassland/Savannah



Forest



Ocean



River



Icy, Polar













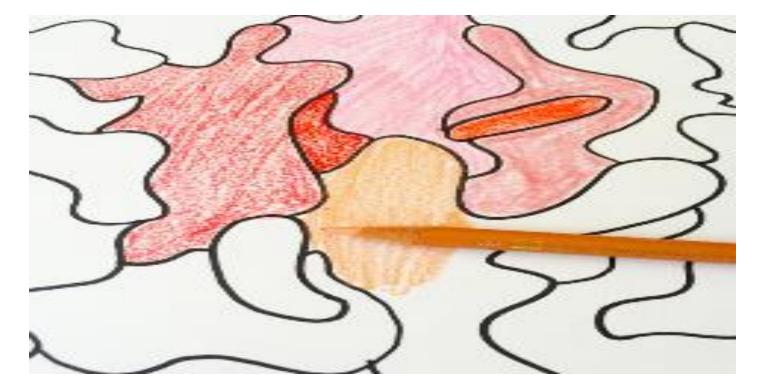


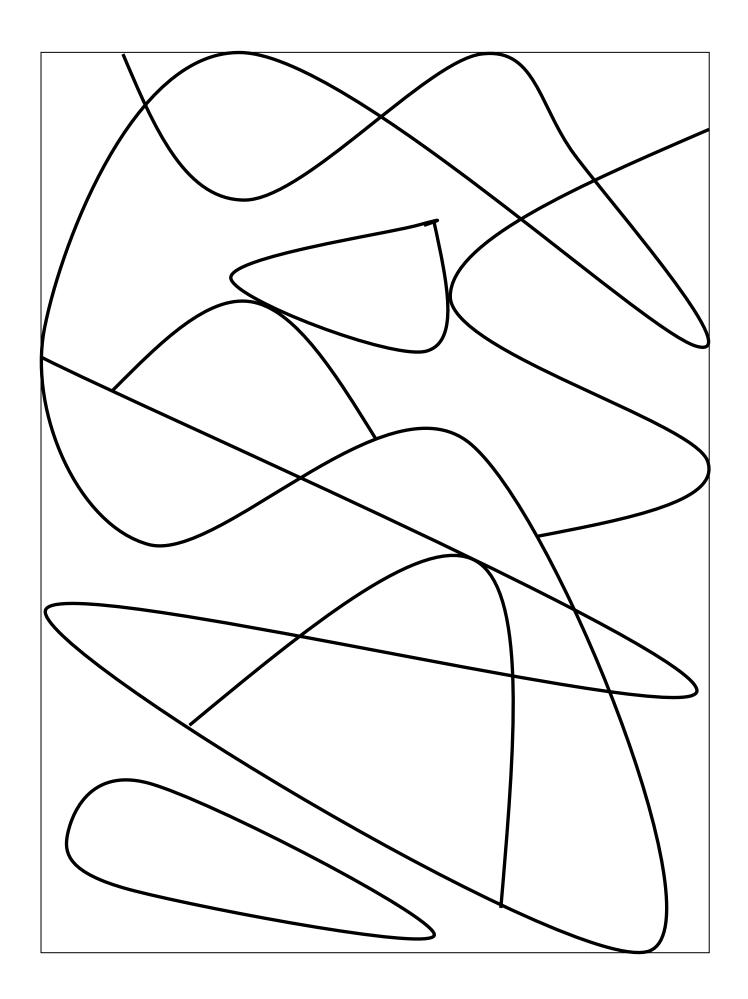
Lesson 8 Printables











Lesson 9 Printables





