God is Creator Teacher's Topic Guide Year 4

Topic: Ecosystems / Endangered species

Duration: 5 weeks

Spiritual Awareness: God is Creator

- God's original creation was perfect. When God had finished the creation he stated that it was 'good'. A good and perfect creation cannot include killing and death. This means that in the Garden of Eden, the original perfect ecosystem, all animals ate plants, (Gen 1:29).
- The Fall brought about new types of ecosystems where some animals ate plants, but other animals ate animals for survival. The ecosystems in our world today are a result of a curse that came into the world because of man's sin. One day God will restore ecosystems to perfection, where the lion and lamb will graze peacefully together.

God is Protector

• We have been given a mandate to care for the creation, (Gen 1:28). Caring for the creation involves protecting the plant and animal species on our planet. Taking responsibility for environmental protection is a response to 'God is Protector'. We protect the creation on God's behalf. Protection of the environment involves wisdom and responsibility.

Values: Our response to 'God is a Powerful Creator'

- Faith in God's ability to supernaturally create and trust that He is in control of all He has made.
- Environmental sustainability: Care for and protect the living things that He has created.

Bible stories and passages

- Genesis 1 The creation
- Genesis 2:19 Adam named the animals
- Isaiah 11:6-9 the restoration of the perfect Creation the wolf and lamb will live peacefully together.
- Psalm 65:6 -13 God is in charge of nature.

Bible verses

- Genesis 1:28 God said, "I am putting you in charge of the fish, the birds and all the wild animals". (GNB)
- Psalm 150:6 Praise the Lord, all living creatures!
- Psalm 148:9-10 Praise Him, hills and mountains, fruit-trees and forests; all animals, tame and wild, reptiles and birds.
- 1 Chronicles 29:11 You are great and powerful, glorious, splendid and majestic. You are king, supreme ruler over all. (GNB)

Key Questions

About God What did animals eat in God's original creation? How do we know that there was no killing? How did the creation change after Adam and Eve sinned? Today animals eat other animals. Is this part of God's perfect plan? Will there be animals in Heaven? What are we told about these animals? Who is responsible for caring for the creation? About ecosystems What is an ecosystem? What do the animals eat? Where do they live? What is the name of where they live? (habitat) How do they depend on the plants and other animals around them? What would happen to these animals if their main food source no longer existed? In what ways have people changed and destroyed the environment in which many animals live? What is the result of destroying the places where animals live? Which animals are endangered?

How can we help to protect God's creation?

Outcomes: Students will

- understand that plants and animals depend upon each other and their environment for survival
- be able to define producers, (plants that make their own food), herbivores, (animals that eat plants), and carnivores, (animals that eat other animals), consumers, predators, (animals that hunt for other animals)
- be able to list the requirements for animal and plant life within an ecosystem
- be aware of ways in which people have changed or damaged many of the environments in which animals live
- understand the balance of nature
- suggest ways of preventing the extinction of animal species
- classify organisms using key words
- draw food webs

Activities

ECOSYSTEMS

Beacon Media research cards: Ecosystems; Environmental Conservation; Desert animals

- Select an example of an ecosystem and draw up a flow chart showing chains of dependence within the ecosystem e.g. forest, sea life, pond, lake, African savanna
- List and classify plants and animals within the chosen ecosystem.
- Draw the chain of dependence. Draw and cut out drawings of items in a food chain, e.g. grass, insects, birds, bears. Then each item is glued to a large paper strip. Make an actual "chain" out of the strips by looping them together in a paper chain.

- Work in groups, giving each group 4 animal pictures or animal word cards. Ask students to decide the order of the animals in the food chain.
- Students can make up some food chains, e.g. a food chain that could be found in the sea, a rock pool or in the bush. Remind them that all food chains must start with plants. Create "thinking maps" to show the different levels of a food chain.
- Make a mobile with cut out labeled shapes as follows: the sun at the top, plants next, herbivores next, and predators at the bottom.
- Give the students about 8 different word/picture cards, e.g. grass, eagle, caterpillar, rabbit, cat, mouse, lettuce, pigeon. Ask them to see how many different food chains they can make.

ENDANGERED SPECIES / ENVIRONMENTAL CONSERVATION

- Look for signs of man's intervention, e.g. pollution
- Discuss the problems caused by man upsetting the balance, or damaging the homes of plants and animals.
- Discuss ways in which introduced species have upset the balance of nature in certain areas. Activities: Caring for God's World

Make a copy the following scenarios and cut them up. Divide the class into eight groups. Give each group one scenario. Ask the group to act out the scene using mime. Each group is to choose a leader as well as one person who will explain to the class what is happening.

Scenario 1

A family went to Suva point for a picnic. They finished eating and swimming and left their lunch papers, plastic bags and empty drink cans and glass bottles lying on the beach. The tide came up and carried the rubbish out to sea. Next weekend they went to the beach at Deuba, and there they found rubbish washed up by tide and lying on the beach. The sea had broken the bottle on the rocks and buried the glass just under the sand. One of the children stepped on the glass, cut his foot badly, and had to go to Navua Hospital to have stitches and a tetanus injection. The wound hurt very badly. The family was sorry they hadn't carefully put their rubbish into the bin.

Scenario 2

A passenger threw a glass drink bottle out of a bus window. It hit the windscreen of the car following, and the glass from the bottle cut people.

Scenario 3

A child threw a glass bottle out of a window of the car. It smashed on the road, cut someone's car tyre and their vehicle went out of control. It was a bad accident and the mother of the family died.

Scenario 4

A family went to the beach for a picnic. They put all their rubbish in a plastic bag and threw it all, including the plastic bag, into the sea. A beautiful dolphin saw the plastic bag floating way

out to sea and thought it was a jelly fish. It swallowed the plastic bag and died a very slow, painful death.

Scenario 5

A bus company didn't fix their bus properly, and as it went up the hill it blew huge clouds of black smoke out of the exhaust pipe. The smoke drifted into homes of the people living on each side of the road, and soon a little child was sick with asthma.

Scenario 6

A sugar mill was not careful and let a lot of waste material spill into the river. Soon all the fish were dead and people couldn't gather and eat shell fish from the river.

Scenario 7

A ship on the harbour pumped oily waste into the harbour, and people fishing along the sea wall got sick when they ate the fish they caught.

Scenario 8

Some families didn't pack their rubbish carefully into plastic bags, and dogs came and pulled the rubbish all over the footpath. The children had to step over the rubbish to go to school. Mosquitoes were attracted to the rubbish and some children caught dengue fever.

Biography: Maitaka

Values education Year 4 God is Creator Environmental sustainability

God tells us that we are to care for His creation and the resources He has given us.

Environmental sustainability is ...

- looking after the plants, animals, soil and water in the environment
- thinking about the future and doing things that will keep the environment safe from destruction in the future
- acting responsibly when we use plants, animals, soil and water in our environment
- showing wisdom in using and preserving our nation's resources
- being wise stewards
- making wise use of the resources that God has provided
- recycling

What does the Bible say about environmental sustainability?

Genesis 1:28-31 God said, "Be fruitful, fill the earth and subdue it."

Genesis 1:29 "God said, Look I have given you all the plants that have grain for seeds in them. They will be food for you."

Genesis 2:15 God put man in charge of the creation

1 Cor 4:2 Stewards should be trustworthy

Proverbs 4:7 The beginning of wisdom is this: Get wisdom, and whatever you get, get insight. Psalm 96:11-12 Let the heavens be glad and the earth rejoice, the sea and all that is in it...

Art Year 4

God is Creator Topic: Ecosystems

Biblical connection: God created living things to live together. Living things are part of God's creation and depend on each other.

Bible art as a wall display: Make a large mural of an ecosystem.

Bible verse: Genesis 1:28 I am putting you in charge of the fish, the birds, and all the wild animals. (Good News Bible)

1. Collage

Draw, cut out and paste living things in a particular ecosystem.



2. Construction

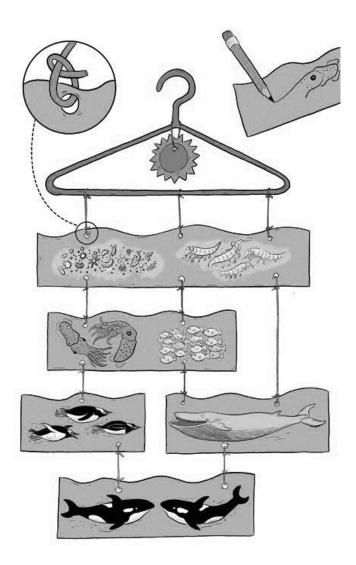
Make a model of an ecosystem. This could be inside a cardboard box.



3. Mobiles

Make mobiles of an ecosystem

with the sun at the top and the order of dependence of living things underneath. Example:



Pets 1	Pets 2
A pet bird has escaped from its cage into a nearby tree.	
How many different ways can you think of to get it back?	Build a house for a pet.
Pets 3 Draw a pet by adding to this shape.	Pets 4 Find some things that are the same about: a dog and a gold fish
Pets 5 A friend wants to give you a pet dinosaur. Make a list of all the things your parents might not like about this.	Pets 6 Cats should have bells around their necks. Make a list of some good and bad reasons for this.