



Understanding our Environment

Term plan for Leaders, not emailed to Joeys/Cubs. YouTube clips to be played by leader and screen shared for Joeys/Cubs.

Week	Topic	Brief outline
1	Introduction and Unit Council	What Environment topics are the Joeys/Cubs interested in? What are their aims? Use Project planning tools here https://pr.scouts.com.au/achievement-pathways/ (third tab across, second document down) Show some props to spark their imagination. Suggest that Joeys/Cubs investigate their own Environment SIA to present to the Unit or run a meeting.
2	Biodiversity: Creepy Crawlies	Looking for invertebrates in the garden. Identifying them. Talking about their importance and biodiversity
3	Trees and leaves	Different leaves. Drawing them and looking at their structure. What does a leaf do?
4	Recycling	Waste audit of recyclables in the home. What does the local council recycle? What happens to the things recycled?
5	Rocks	Finding some rocks. How did they form? Identifying rocks. Make a volcano.
6	Water and the toilet	How much water does a toilet use? How does a toilet work? What should we put down a toilet? Toilet paper experiment.
7	Wildlife in your garden	What attracts native animals to your garden? What native plants are in your garden? How could you encourage more?
8	Environmental scavenger hunt	Game: Finding objects around the house with an environmental theme.
9	<i>Joey/Cub additional interest</i>	<i>Joey/Cub to run the session or part of session. This session can be run on any week.</i>
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This term plan can be run as a Special Interest Area – Environment Badge for the whole Unit. It includes specific program ideas for online Scouting but also allows for two sessions to be lead by the youth on additional areas that interest them.

An individual Joey or Cub could develop one of these areas further as an individual SIA – Environment badge. Remember to gain the Peak award the Joey/Cub needs to complete a total of 6 SIA from two categories. So, more than one Environment project can be done.

Paperwork can be found here <https://pr.scouts.com.au/achievement-pathways/>

This program has been compiled at short notice during Covid Lockdown. I welcome any program reviews to improve it in the future kathy.jones@nsw.scouts.com.au

1. Introduction and Unit Council

Understanding our Environment

Plan for Leaders, not emailed to Joeys/Cubs.

Before this session...

Download the SIA Project Planning Tool <https://pr.scouts.com.au/achievement-pathways/> (third tab across, second document down). Collect props, see next box down.

In Scouts we love to get outside to learn, to enjoy the outdoors but it is also important to understand the environment around us as there is only one world and we need to look after it. It can be hard if we are stuck at home, however, we can still go outside our house.

We are going to be learning about the Environment and how we could be looking after it better. We also have the opportunity to earn our Environment badge in the Special Interest Area.

What parts of the environment interest you?

(Record Joey/Cub responses)

Also you can use some props to spark their interest such as showing them the Invertebrate ID sheet, some leaves, recycling, rock samples, toilet paper and a flower.

What should be the aims of our investigations?

Possible ideas:

"To understand the natural Environment better"

"To look after the planet better"

"Improving how we live in our homes"

Fun activity if time:

Ask Joeys/Cubs to find some environmentally themed items around the house (one at a time) and show them on their screen. It can be a race, first one back or best item found.

Energy saving light bulb; an eco-friendly cleaning product; turn off all the lights; a Green shopping bag; kitchen compost bin; a bees wax sandwich wrap; an indoor plant; a worm from your worm farm.

Joeys/Cubs can also come up with their own ideas.

This game can be used again if sessions don't take as much time as anticipated.

2. Creepy Crawlies

Plan for Leaders, not emailed to Joeys/Cubs.

Before this session...

Email a copy of the Invertebrate ID sheet to the Joeys/Cubs and email them with the list of things they will need below.

Have you ever investigated what creepy crawlies are hiding in your garden? There are many small creatures that we call invertebrates (in-vert-a-brates) that live in the soil, leaf litter, in the trees and even on the outside of your house. Some are very small and hard to see, others like to hide in dark places. We are going to investigate what is living in your garden.

What you will need:

A clear plastic container with a lid, a paint brush or a stick, a torch, a phone with a camera (if possible), piece of paper and pencil.

Please remember: If you don't have any of these things you can still look and draw what you find.

Safety!!

Please remember to be safe. Do not pick up any spiders. If you are not sure if a creature is harmful do not try to capture it. Joeys may need the help of an adult.

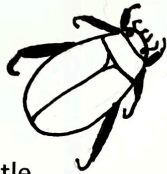
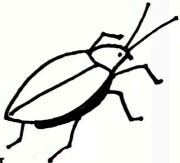




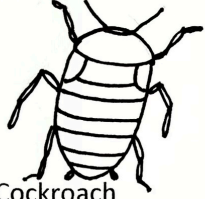



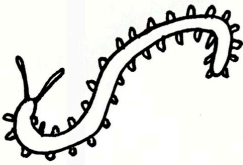
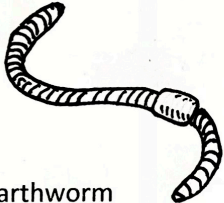
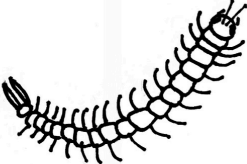
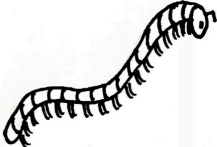




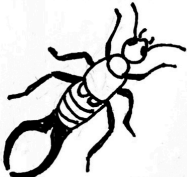


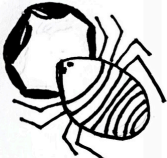


1. Go into your garden for about 10 mins with the above equipment. Shine the torch in dark places, move leaf litter, lift up a log and look for what is living there. If you find a creepy crawly, carefully catch it in the plastic container using the stick or paint brush to gently guide it in. Remember where you found it as this is its home. You will need to return it later.
2. Draw what you have found on some paper.
3. Use the identification chart to work out what your creepy crawly is. Do a quick internet search to try and narrow down the species name of what you caught. For example, if you caught a millipede and it is black, do an image search for black millipede and see if you can find one the same.

Write the Scientific or common name of the invertebrate on your drawing.

4. Next, do an internet search for what it eats. What do you think would eat it?!
5. Come back to your Unit to share what you caught. You can show the creepy crawly in the container show your drawing or photo. Make sure you return it to its home after.

Even though they are often small and sometimes scary looking, invertebrates are very important. They help break down rotting matter in the soil for plants, some spiders eat mosquitos and flies, many are food for larger animals like birds. Invertebrates are very good for your garden, the more you have the greater the biodiversity, which means you are helping to look after the planet.

Common Leaf Litter Invertebrates

 Beetle	 Bug	 Ant	 Wasp
 Fly	 Grasshopper	 Cockroach	 Termite
 Springtail	 Amphipod	 Velvet worm	 Earthworm
 Centipede	 Millipede	 Slater	 Spider
 Mite	 Snail	 Earwig	 Leech
 Scorpion	 Pseudoscorpion	 Harvestmen	 Silverfish

3. Trees and Leaves

Plan for Leaders, not emailed to Joeys/Cubs.

What you will need:

Joeys/Cubs will need a piece of paper and pencil

Do you have some trees in your garden or pot plants?

Go into the garden and collect three different leaves.

Come back inside with your leaves.

Draw around their shape on a piece of paper.

Then ask some question.

What colour are they? Are they hard or soft? Why might they be hard or soft? Big or small?

Why does a plant need leaves?

Don't answer these question yet.

Watch the video to understand why trees need leaves.

Photosynthesis | Educational Video for Kids 4:10

<https://www.youtube.com/watch?v=UPBMG5EYydo>

Now talk about the answer to the above questions

Big leaves to catch more sunlight. Sunlight needed for photosynthesis to make plant food.

Tough or spiky leaves to stop animals from eating it.

Small leaves to prevent water loss, hot in Australia means small leaves on some native plants.

Why are trees and plants so important?

They give us oxygen.

They purify the air from pollutants

They cool the earth by providing shade from the sun.

They provide habitat for animals

What could happen to the planet if trees and plants get cut down?

Reduced oxygen, unstable soil, polluted air, Global warming

What can we do at home? Could we plant more trees in our garden? Or at the Scout Hall? Or in our local community?

You could contact local council for tree planting days in future

If you need to fill another 5 mins at the end.

The Sharks that hunt in forests

https://www.youtube.com/watch?v=2YuFNymq_M0

4. Recycling

Plan for Leaders, not emailed to Joeys/Cubs.

What you will need:

Joeys/Cubs will need a piece of paper, scissors and pencil. A tub full of household recycling. Gloves for sorting recycling (optional)

The earth has many useful natural resources that humans can use, like trees for wood and paper, oils to make plastics, ore and rock to make metals. But we only have one planet so when all the natural resources are used up there are no more. That is why we recycle.

Most people are pretty good at recycling at home. We have different coloured bins for different types of garbage. One for general waste that goes to landfill, one for recyclables and one for green waste and plants. Sometimes it is good to have a look in a bin to see what garbage is in it because we might be putting the wrong thing in the wrong bin. We call this a Waste Audit. A garbage bin is emptied out and then the garbage sorted into categories.

Watch the video to understand how a Waste Audit is done.

War on Waste – Waste Audit <https://www.youtube.com/watch?v=3mh1IMpuV5A&t=25s>

We are going to do our own Waste Audit of our recycling bin at home. This way it won't be as stinky. If you are worried about any sharp objects please wear protective gloves. You might like to use a smaller recycling bin (like the one in your kitchen) rather than sorting the large yellow lid bin.

What categories of garbage will we expect to find in the recycling?

Paper and cardboard; glass jars; tin cans; aluminium cans; PET plastic bottles; other plastic

Write the categories on pieces of paper.

Spread the recycling out on the floor and put it into your categories.

Count how many items in each category and tally them on the sheets of paper.

After sorting into categories ask Joeys/Cubs:

Which category had the most items?

Was there anything that should not have been in the recycling bin?

What about soft plastic? Does it go in the yellow bin or somewhere else?

What gets made from the recycled materials? Google search if time.

5. Rocks

Plan for Leaders, not emailed to Joeys/Cubs.

Before this session...

Ask Joeys/Cubs to collect 3 different rock samples from their garden/suburb.

Also send email asking parents to have volcano equipment below.

Understanding rocks helps us to understand how our planet formed. They are also very important because when they break down they make up soil which plants need to grow. Without plants we wouldn't have life on Earth!

Rocks are everywhere but did you know but there are lots of different kinds and we and put them into three main groups by the way they form. Watch video

Be a Rock Detective! <https://www.youtube.com/watch?v=tNs1ggkYerg>

Have a look at the rocks you have collected this week, or go outside and find a rock to use.

Let's try and put the rocks we have into the groups:

Sedimentary: can see the grains and layers in the rock. Fossils are in sedimentary rocks.

Igneous: can have small or large crystals but no layers.

Metamorphic: no grains, sometimes folded layers.

Joeys and Cubs take turns to say what type of rock they have and why. If a large group just ask for one rock each.

Volcano

Igneous rocks form in a volcano when the magma and lava cool down. We can make our own volcano in our sink at home and watch the lava flow.

What you will need:

A cup, a table spoon of baking (bicarb) soda, a squirt of washing up liquid, some vinegar

Watch the video and then we will make our own volcano.

Baking soda + vinegar volcano <https://www.youtube.com/watch?v=XTynyUXPKEo>

Make your volcano in the kitchen sink.

Place the cup in the sink. Fill it half way up with water. Stir in the table spoon of bicarb soda. Squirt in some washing up liquid.(we don't need to use food colouring)

Now slowly pour in some vinegar...

Joeys/Cubs should have already watched the YouTube video but if any of them are not able to do this at home take your computer/phone and show yourself making the volcano.

If this was a real volcano what would the flowing frothy bubbles be?

Lava. Has anyone seen a volcano and the lava? Where?

Do you know what we call the rock that forms from lava?

Basalt. Basalt is a dark blue/grey colour. It can be dug up, crushed and used to make roads.

We don't have much basalt naturally occurring in Sydney. If you found a piece in your rock collection it might have come from the road.

6. Water and the Toilet

Plan for Leaders, not emailed to Joeys/Cubs.

Before this session...

Joeys/Cubs will need a clear plastic 1.25L soft drink bottle, some toilet paper and a wet wipe.

We flush a lot of clean water down the toilet. Every time we flush several litres of water go down into the sewer. Australia is a very dry continent, we don't always have a lot of water, that is why it is so important that our toilets have two buttons so that we can choose to use less water when we flush.

How do you think a toilet works?

Toilets don't need electricity to work but they have to be connected to the mains water, the rest is mechanical.

We can watch a video on how a toilet works.

How does a toilet flush? <https://www.youtube.com/watch?v=SINJWMeP9RY>

What do you think should get flushed down the toilet?

Toilet paper, poo, wee...

Watch the video

Saturday Disney Seven Network 241015 https://www.youtube.com/watch?v=oqr_db2MX3A&t=22s

What were some of the things they said shouldn't get flushed down the toilet?

Wipes, dental floss, toys...

We are going to do an experiment to see how well toilet paper breaks down once it has been flushed.

Fill a 1.25L soft drink bottle $\frac{3}{4}$ full of water. Push in one wet wipe and two pieces of toilet paper. Put the lid on and begin to shake...and shake...and shake..

After a few minutes what has happened? Did the toilet paper or wet wipe break down?

When you have finished and tip the water into the sink make sure the wipe goes in the bin and not down the toilet!!

7. Wildlife in your Garden

Plan for Leaders, not emailed to Joeys/Cubs.

Before this session...

Joeys/Cubs will need a piece of paper and a pencil.

Do you have a garden, or even just some pot plants at your place?

Have you seen animal visiting them?

What kinds of animals? What were they doing?

Eating the fruits and the flowers, hiding under the leaves.

Plants have flowers and fruits to attract animals to pollinate and spread seeds so more plants can grow. By having plants in our garden with lots of flowers we can attract more animals. But not everyone has flowers in their garden.

In an urban environment, where there are houses, there are many birds and animals and we can attract birds into our garden by providing habitat for them to live and some food to eat.

Watch bird video

Attract birds to your garden by feeding responsibly | Beneficial Animals | Gardening Australia

<https://www.youtube.com/watch?v=7jYuJENnQik>

Did you recognise some of those birds and do you see them in your garden?

Rainbow Lorikeet, currawong, magpie, sulphur crested cockatoo, crested pigeon, honey eater,

When feeding birds in the garden what do we need to remember?

- *Not too much*
- *A variety of food and nutritious food*
- *Keep it clean*

What were some of the foods that were good for the birds to eat?

- *A variety of seed, berries, frozen peas*

Watch lizard video

How to build a Lizard Lounge

<https://www.youtube.com/watch?v=dhIWfIB26Qk>

On paper, design a bird feeder that you could put in your garden and draw on the food you would put in it. Draw or write the names of the birds you hope to attract.

Or

Draw a Lizard Lounge you could create for your garden using pipes and rocks. Draw your lizard.

Share with the Unit.

8. Environmental Scavenger Hunt

Plan for Leaders, not emailed to Joeys/Cubs.

We have investigated many different things which relate to our Environment. Some things were understanding how natural environments exist and that it is important to protect them. Some things we learnt were about being more sustainable in the way that we live so we don't continue to destroy the planet.

We are going to play a game but during the game I want you to think about what you think is the most important thing you have learnt this term and how it has changed the way you live so that you are looking after the environment.

At the end of the session we will hear from everyone. You can also share what you think could be better to improve the program as a Review.

Please send Review ideas to Kathy.jones@nsw.scouts.com.au

Environmental Scavenger Hunt Game:

This game may have been played for a short time in the first week but can now be extended.

Ask Joeys/Cubs to find some environmentally themed items around the house (one at a time) and show them on their screen. It can be a race, first one back or best item found.

Energy saving light bulb; an eco-friendly cleaning product; turn off all the lights; a Green shopping bag; kitchen compost bin; a bees wax sandwich wrap; an indoor plant; a worm from your worm farm.

Joeys/Cubs can also come up with their own item ideas.

9. Additional Interest – Two weeks available

This week has been left blank for individual Joeys/Cubs to plan and run an Environmentally themed session. Youth led, Adult supported.

If Joeys/Cubs were very engaged by any topic during the term these areas can be expanded upon. For additional ideas on any of these topics please email me Kathy.jones@nsw.scouts.com.au

This week could also be an opportunity for individuals to share a personal Special Interest Area Project. Joeys/Cubs could be challenged at the beginning of the term to do a SIA in their own time and each presents at the end of term.