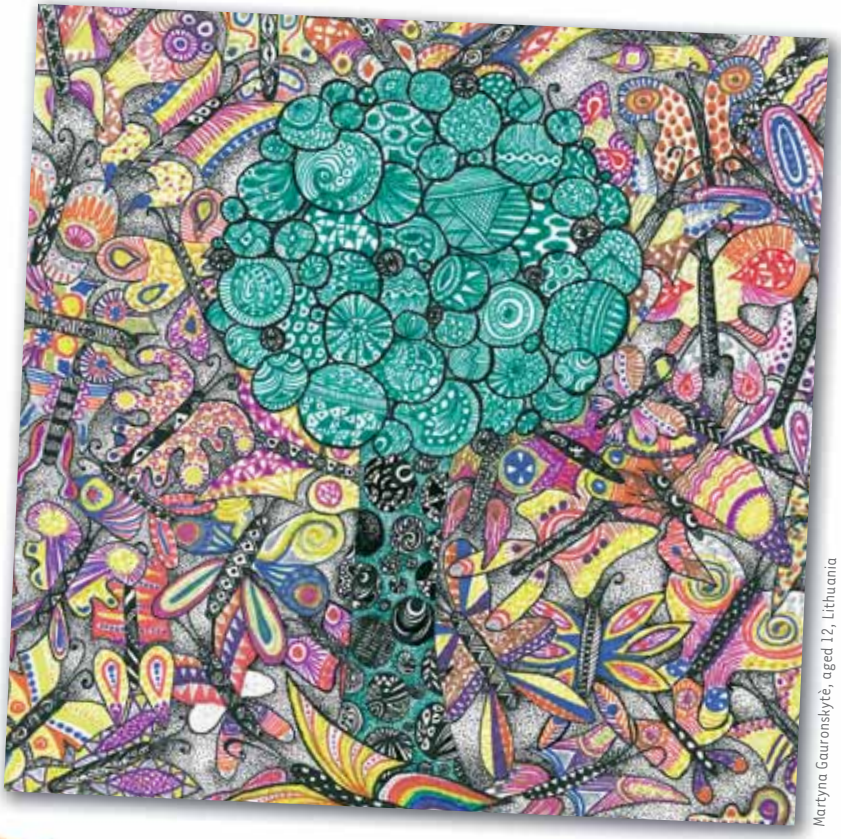
section C

Our Land

DO THE FIRST ACTIVITY AND ONE OTHER ACTIVITY OF YOUR CHOICE. AFTER COMPLETING OUR LAND ACTIVITIES YOU WILL BE ABLE TO:

>> **KNOW** and appreciate the land-based species and ecosystems in your area

>> **DESCRIBE** some of the uses of biodiversity



Martyna Gauronskytė, aged 12, Lithuania

GROUP ACTIVITY

LEVEL 1 2 3

ACTIVITY C.01

Interview a grandparent or elderly friend (or even an adult pretending they were born many years ago) about the foods they grew and ate as a child. How were these foods prepared? Why were these foods grown and not others? Are the foods different from the ones that you grow, cook and eat today? Why or why not? If possible, try preparing some 'old-fashioned' food. Share your findings with your friends, group or to Bioversity International's 'Oral History Project'. Visit the website:

diversityforlife.org/about-the-campaign/activities/oralhistory

Biodiversity on the menu

LEVEL 1 2

ACTIVITY C.02

What do you need for a healthy diet? Find out how biodiversity contributes to good nutrition by imagining what would happen if there was only one type of fruit, one type of vegetable and one type of meat available. Share your findings with your teacher, leader or group.

LEVEL 1 2

ACTIVITY C.03

Invent a game about seeds and biodiversity. For example, you could invent a matching game where players have to match actual rice, corn, wheat or other seeds with clues or drawings of the plant. Play the game with your friends.

LEVEL 1 2

ACTIVITY C.04

Ask an indigenous person (sometimes called First Nations, Aboriginal or Native person in different parts of the world), your parents, grandparents or elderly friends to teach you how to recognize wild edible herbs and plants. Make a collage showing the herbs and plants and their uses. **DON'T PICK AND EAT ANY PLANTS BECAUSE SOME POISONOUS PLANTS LOOK VERY SIMILAR TO NON-POISONOUS ONES.**

LEVEL 1 2

ACTIVITY C.05

Visit a market or grocery store. Look for examples of species diversity and genetic diversity, two levels of biodiversity. (The third level is ecosystem diversity.) Count the number of vegetable species (such as carrots, cucumbers, lettuce). Find a species that has several varieties, for example potatoes. This is an example of genetic diversity within a species. How many varieties of potatoes are there? How are they similar? How are they different? What other foods have multiple varieties? Why is it important to have genetic diversity in crop plants? Share your finding with your class or group.

LEVEL 1 2 3

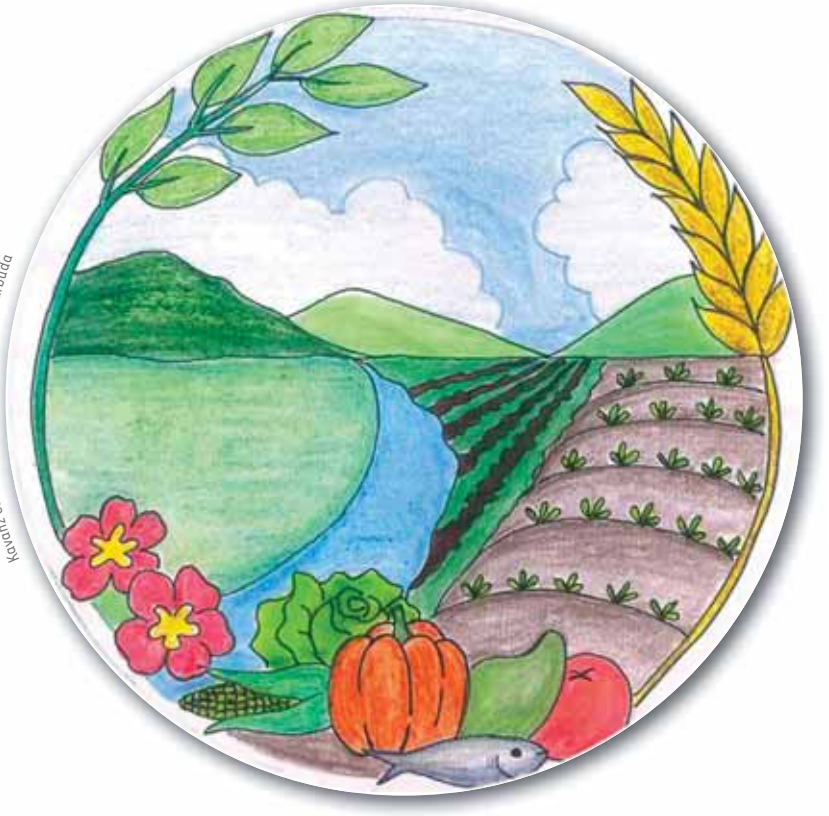
ACTIVITY C.06

Record what you eat for five days. How many different things did you eat? Which animals and plants did your food come from? At the end of the week, help prepare a meal that uses lots of biodiversity. Share it with your family and friends. During the meal, talk about the biodiversity in each dish.

LEVEL 2 3

ACTIVITY C.07

Predator-prey dynamics are important to healthy ecosystem functioning. Play the survival game with your group. What happens when one species goes extinct? What role does disease play? What effects do humans have? How would climate change affect the survival of the animals? The rules of the survival game are at dragon.sleepdeprived.ca/games/wide_games/wide_games_15.htm and www.snowleopard.org/catfactsclassroom/classroom/resources.



Kaviraz Constant, aged 14, Antigua and Barbuda


Ryanna Tee, aged 15, Philippines

LEVEL 2 3

ACTIVITY C.08

Pick a food item that is eaten in several countries around the world such as bananas, beans, tomatoes or maize/corn. Where did the food originate? Are there different varieties in different countries? How is the food cooked in different countries? Try three recipes from three different countries. Share your culinary creations with your family and friends. How do you think biological diversity relates to cultural diversity? Discuss your answers during the meal.

LEVEL 2 3

ACTIVITY C.09

In a grocery store, find five foods that are genetically modified. Is it easy or difficult to find them? How are they different from their relatives that are not genetically modified? How are they the same? Find three arguments for and three arguments against genetic modification of foods.

Gardening for goods

LEVEL 1 2

ACTIVITY C.10

Inspect a handful of soil and describe the biodiversity. Look at a sample under a magnifying glass or a microscope. Draw the creatures you see.

LEVEL 1 2

ACTIVITY C.11

How long do things take to decompose? Fill a box with soil. Bury ten samples (e.g. newspaper, apple core, tinfoil, glass bottle, leaf, plastic bag, candy wrapper and animal fur) and mark the location of each. Add some water so the soil is slightly damp. Once a week, dig up each sample and check how decomposed it is. Record your observations

for six to eight weeks. Based on the results of your experiment, how long do you think it will take for your garbage to decompose? If you live in a cold climate, try this experiment in a warm season.

LEVEL 1 2 3

ACTIVITY C.12

GROUP ACTIVITY

Grow a vegetable, herb, fruit, nut or spice garden. Nurture your green thumb in a container garden, a community garden, a rooftop garden or a backyard garden. Keep track of how much water and sunlight different plants need to grow best. What kinds of animals visit the garden? Why do you think animals come to the garden? Which animals help the plants by pollinating flowers or spreading seeds? Discuss your observations with your group. For information on setting up and running a group garden, see www.fao.org/docrep/009/a0218e/a0218e00.HTM.

LEVEL 1 2 3

ACTIVITY C.13

Before the invention of artificial chemical dyes, clothes and other fabrics were coloured with natural dyes from roots, nuts, berries, flowers and other things found in nature. Make your own natural dyes from natural materials found in your neighbourhood, grocery store or market. Dye a t-shirt, bandana or other material.

BE VERY CAREFUL AND AVOID USING ANY POISONOUS PLANTS.

www.pioneerthinking.com/naturaldyes.html

LEVEL 1 2 3

ACTIVITY C.14

Learn about composting. What is it? What creatures are the workers in a compost? What can you put in a composter? What can't you put in a composter? What are the benefits of composting? Try composting - in a vermicomposter, backyard compost heap or compost box.

LEVEL 1 2 3

ACTIVITY C.15

Find out what kind of soil plants prefer with a soil core experiment. Dig a hole 50cm deep. Fill one pot with topsoil collected in the top 2cm. Fill a second pot with subsoil collected 15cm from the surface. Fill a third pot with subsoil collected 50cm from the surface. Grow a plant in each of the pots. Chart each plant's growth for 6 to 8 weeks. Why do you think there are differences? Why is the erosion of topsoil a concern for farmers? Share your findings with your teacher, leader or group.

LEVEL 1 2 3

ACTIVITY C.16

Visit three farms in your area that use different growing techniques and/or grow or raise different agricultural products. For example, you could visit a dairy farm, an organic market garden, a vineyard or a conventional cereal farm. Ask the farmers what sort of challenges they are facing and how biodiversity helps them face those challenges.

LEVEL 2 3

ACTIVITY C.17

For thousands of years, biodiversity has provided humans with natural medicines and remedies. Find out which plants in your community have medicinal purposes. **DO NOT PICK THE PLANTS THEY COULD BE POISONOUS AS IT COULD BE A DIFFERENT SPECIES OR THE WRONG PART OF THE PLANT.**

LEVEL 2 3

ACTIVITY C.18

Identify five rare varieties of crops or plants that grow in your community. What are their special characteristics? Where are these rare varieties grown? How are they similar to and different from their common variety relative? Find out what you can do to help conserve these rare varieties, then try it! If possible, do this activity as part of a farm visit.

LEVEL 2 3

ACTIVITY C.19

Look at the labels on your clothing. Make a list of all the different materials found in your clothing. Sort them into two categories - natural and synthetic. What are the characteristics of natural fibres and synthetic fibres? Where are natural fibres grown? Which lasts longer - natural or synthetic clothing? Why would clothing manufacturers blend different types of fibres? Write a short report or tell your teacher or leader about your findings.

Protect habitats

LEVEL 1 2

ACTIVITY C.20

Insects are everywhere. Studying them is a fun way to learn about nature and how different parts of biodiversity are linked to each other. Find a colony of ants and observe it regularly during two seasons. Find out what ants carry to their colony. Follow their path and measure it. What happens to ants and their home before or after a rainfall? Do all ants do the same work?

LEVEL 1 2 3

ACTIVITY C.21

Reducing, reusing and recycling is good for biodiversity. One tonne of recycled paper saves 17 trees. More recycling means more habitat is saved for other plants and animals. Recycle paper by making your own. Use the paper to make a craft. Or, write a letter to someone special and send it to them. Don't forget to write that the paper is homemade! For ideas, see www.pioneerthinking.com/makingpaper.html or www.wipapercouncil.org/makepaper.htm

GROUP ACTIVITY

LEVEL 1 2 3

ACTIVITY C.22

Walk through a field with tall grasses wearing trousers that collect a lot of seeds. At the end of your walk, change into a new pair of trousers and inspect the seeds that have collected on your trousers. How big are the seeds? Are some seeds found only at certain heights? How do you think these seeds would be dispersed in nature? You can also try this activity wearing different kinds of fur to mimic the different mammals that would walk through the field collecting and dispersing seeds. Are certain furs better for holding seeds than others? Share your findings with your group.

IF YOU WALK THROUGH A FARMER'S FIELD, DON'T FORGET TO ASK PERMISSION FIRST!

LEVEL 1 2 3

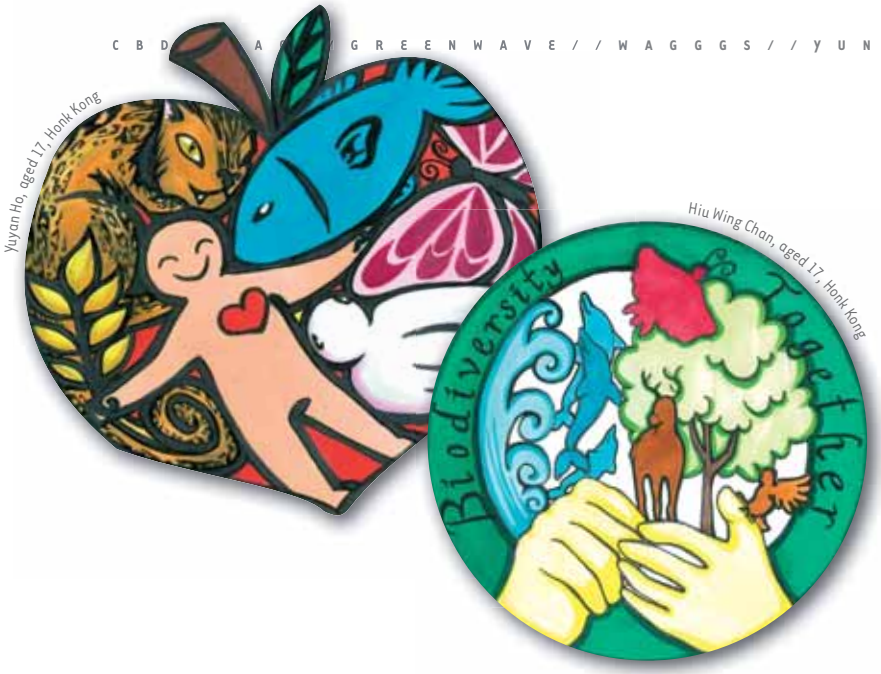
ACTIVITY C.23

Create a biodiversity-friendly yard that offers lots of homes for species. Use recycled goods or material that might otherwise end up in the trash. Bee houses can be made from bundled bamboos straws, toad homes can be made from an old half-buried teapot. Use your imagination! Watch the wildlife that takes up residence in your yard.

LEVEL 1 2 3

ACTIVITY C.24

Go for a walk in a forest. Record what you see, hear, smell and feel. **DON'T TASTE ANYTHING - IT COULD BE POISONOUS.** Observe from different vantage points. For example, look down, look under a fallen log, close your eyes and listen, make a bark rubbing, feel the texture of the soil, etc.



LEVEL 1 2 3

ACTIVITY C.25

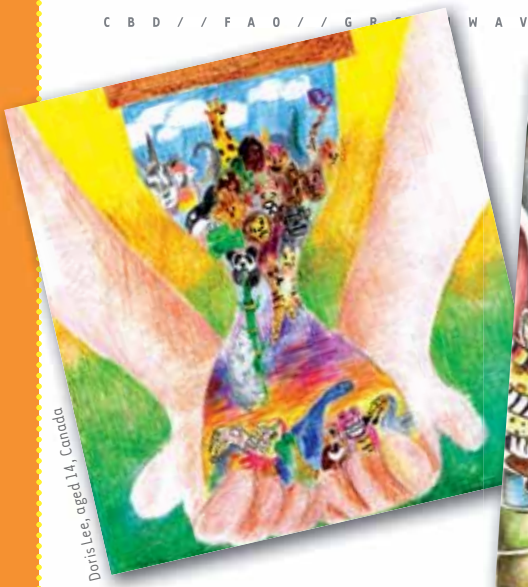
Go for a walk in a natural area such as a forest or park. Look for animal signs such as browsed leaves or bark, animal tracks, holes in trees or in the ground, nests, fur, feathers and scat. Investigate the traces that animals leave behind (hair from their bristle, feathers, excrements, imprints). If possible, invite a biologist to come along. Make a drawing of three things you discovered, and present them to your group.

GROUP ACTIVITY

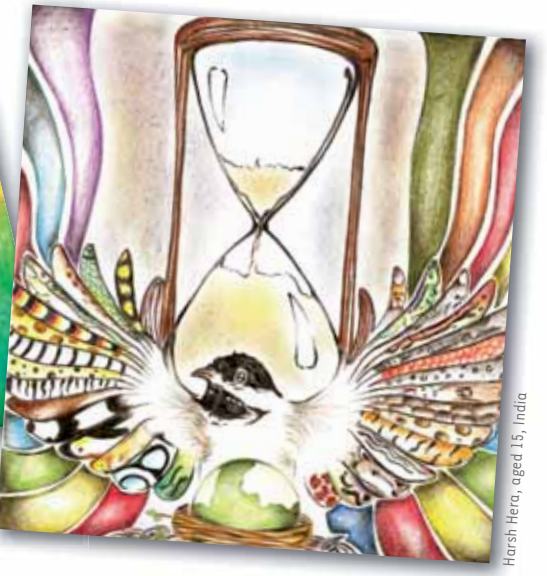
LEVEL 1 2 3

ACTIVITY C.26

Climb a mountain. Note the plant and animal life along your hike. What sort of changes do you observe at different elevations? How does the temperature, humidity and wind change? Are the same species found at both the top and bottom of the mountain? Why or why not? Discuss your discoveries with your group.



Doris Lee, aged 14, Canada



Harsh Hera, aged 15, India

LEVEL 1 2 3

ACTIVITY C.27

Research rare tree species native to your area. Why are they rare? What animal species use these tree species for food and shelter? Choose one of these tree species and plant it in an appropriate location.

LEVEL 1 2 3

ACTIVITY C.28

Collect seeds and small plants (including the roots) from a ditch or alongside a road. Plant them in an open or closed terrarium, creating a miniature ecosystem. Care for them as they grow. If you dispose of them, be sure to put them back where you found them so you are not introducing alien species. www.stormthecastle.com/terrarium/terrariums-for-kids.htm

LEVEL 1 2 3

ACTIVITY C.29

Adopt and clean a natural area. Take an inventory of the plants and animals that live in that area. Describe their location in relation to each other. How do they depend on each other? Explain your findings to your group in words or in pictures.

LEVEL 2 3

ACTIVITY C.30

What is a seed bank? Find out where seed banks are located in your area and country. Visit one, if possible. Find out how you can get involved in a seed bank.

LEVEL 2 3

ACTIVITY C.31

Find a tree in a forest or natural area and plot a one metre radius around its base. On a piece of paper, draw all of the life forms you find within that area (e.g. grasses, mosses, lichens, insects, fungi, frogs, etc.). Try to identify the species names. If possible, invite a biologist or naturalist to help you with the activity.

LEVEL 1 2 3

Do any other activity approved by your teacher or leader.