

How can we protect Biodiversity?

"Finding out & Action"

Learners investigate biodiversity-loss issues and ways to deal with these problems.

Grading: T T T T

Time: 222

Place: Inside

Group size: 4 groups

Activity Outcomes:

Learners are able to:

- implement ways to prevent biodiversity loss
- understand that our natural resources should be used sustainably.

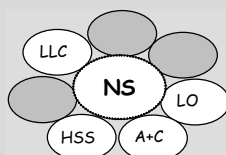
Assessment:

- Peer assessment of research and group discussions
- Include findings in portfolio

Skills:

- Gathering and organising relevant information
- Constructing concepts
- Civic responsibility

Learning Area links



Biodiversity-loss action wheel

Background:

South Africa has the tenth largest biodiversity in the world; having 23 000 plant species, approximately 300 species of land mammals and 900 bird species. Many of these species are rare and are only found in this country e.g. Fynbos biome. Many of these are threatened mainly by habitat loss.

How can we sustain our biodiversity?

We have to ensure that our biological resources are managed and used well. We as humans, have to change the way we view nature and our own place in the web of life.

The fundamental reason for the loss of biodiversity and the impoverishment of the earth is the way we live e.g. increasing population numbers, excessive and unsustainable consumption of natural resources and expanding into every habitat, to name just a few.

Just as biodiversity is the foundation for sustainable development, finding sustainable ways to live is essential if biodiversity is to be conserved.

Activity Guidelines

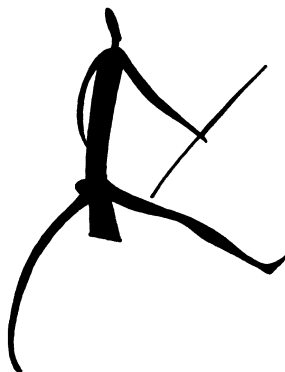
Needed: Copy of biodiversity-loss action wheel on A-3 paper in four different colours: e.g. red, blue, green, and yellow

- ✂ Use first session for class discussion on sustainable living and ways to conserve biodiversity.
- ✂ Divide class into four groups and supply each group with an action wheel of a different colour. Each group of learners will represent one of the four action groups, namely INDIVIDUAL; COMMUNITY; BUSINESS AND INDUSTRY AND PROVINCIAL, NATIONAL AND INTERNATIONAL.
- ✂ Allow each group two sessions to research and complete their section of the wheel. Make sure that you have information for each heading on the wheel - namely **problems**, **solutions** and **realistic actions** taken.



Agenda 21

Agreement taken at a United Nations Earth Summit in 1992 which provides a plan how to make development socially, economically and environmentally sustainable



Read

Envirofact no 3
Sustainable development
for more information



This water quality assessment project enables learners to analyse river water in order to investigate possible sources of pollution.

SWAP
Dept. of Didactics
University of Stellenbosch
Stellenbosch
7600

During a class discussion learners from the four different groups exchange their findings. The input from the groups will help to complete the individual sections on the wheel.

Then each group will cut out their particular section, which will be used to form a complete action wheel on a display board.

Variations:

BIODIVERSITY CLUB

Establish a biodiversity club in your school.

Here are some useful guidelines which you should keep in mind when starting a club:

- Setting up a constitution
- Choosing projects and activities
- Planning and managing money
- Managing a club

The Wildlife Society of Southern Africa will help you with more information at:

Society Head Office
PO Box 44344
Linden
2104

Special events and action projects

Action projects can be linked to special environmental events such as Wetlands Day, Arbor Day and Water Week. Plan two or three of these action projects involving your class or the whole school.

For this purposes the Enviro Days Booklet will be of great help. It serves as a year planner which indicates these special days in the year and provides background information on why each of these days is important.

Example: Water week

- Learner can use materials from the SWAP water project or National Water Conservation Campaign to investigate the quality and quantity of water used in and near the school.

Set up a contract - my contribution

Let learners consider a personal undertaking to protect an aspect of biodiversity, e.g. plant, a habitat, use brown paper bags in place of plastic, use less electricity. It is probably best not to promise the world: one or maybe two simple decisions by everybody in the class could have quite an effect.

Learners write down their undertaking, seal the envelopes, keep them in a safe place for a month or two and then post them to themselves.



Learners will then find out whether they have honoured their contracts.

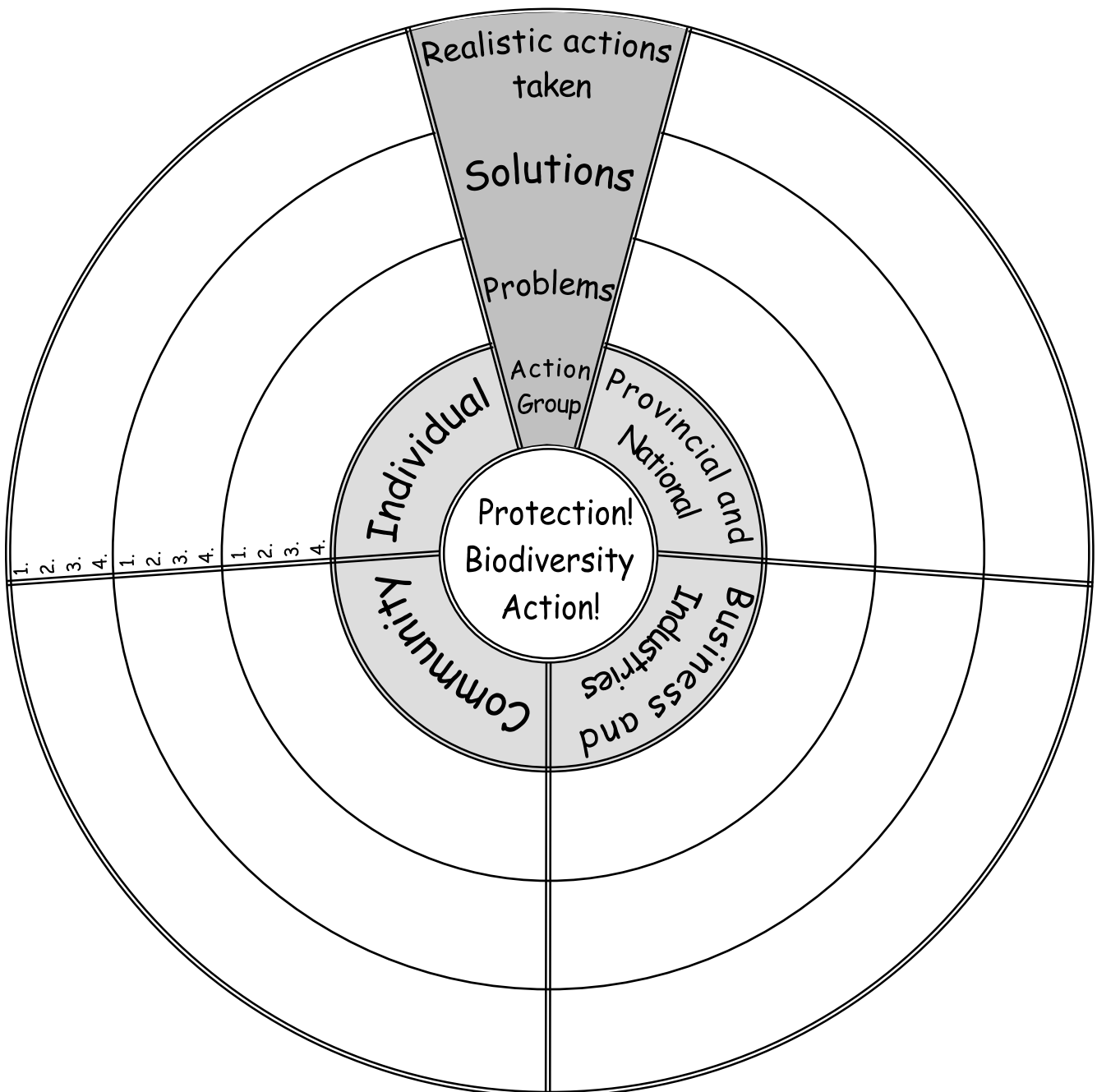
How many of your resolutions have you been able to keep? Have another look at your contract and concentrate on just those that you really think you CAN do. Rewrite your resolutions below but make them just a little easier so that you can complete them successfully.

Resolution 1

Resolution 2.....

Resolution 3.....

Action Wheel



ELEMENTS OF A WORLD ETHIC FOR LIVING SUSTAINABLY



Every human being is part of the community of life, made up of all living creatures. The community links all human societies, present and future generations, and humanity and the rest of nature. It embraces both cultural and natural diversity .



- ▶ Every human being has the same fundamental and equal rights, including: the right to life, liberty and security of person; to the freedom of thought, conscience, and religion; to enquiry and expression; and, within the limits of the Earth, to the resources needed for a decent standard of living. No individual, community or nation has the right to deprive another of its means of subsistence.
- ▶ Each person and each society is entitled to respect of these rights; and is responsible for the protection of these rights for all others.
- ▶ Every life form warrants respect independently of its worth to people. Human development should not threaten the integrity of nature or the survival of other species. People should treat all creatures decently, and protect them from cruelty, avoidable suffering, and unnecessary killing.
- ▶ Everyone should take responsibility for his or her impacts on nature. People should conserve ecological processes and the diversity of nature, and use any resource frugally and efficiently, ensuring that their uses of renewable resources are sustainable.
- ▶ Everyone should aim to share fairly the benefits and costs of resource use, among different communities and interest groups, among regions that are poor and those that are affluent, and between present and future generations. Each generation should leave to the future a world that is at least as diverse and productive as the one it inherited. Development of one society or generation should not limit the opportunities of other societies or generations.
- ▶ The protection of human rights and those of the rest of nature is a worldwide responsibility that transcends all cultural, ideological and geographical boundaries. The responsibility is both individual and collective.



(IUCN/UNEP/WWF 1991. *Caring for the Earth A Strategy for Sustainable Living*. Gland, Switzerland Page 14)

