OVERVIEW

As the world becomes more urbanised and biodiversity is lost, more and more people are losing direct experiences and familiarity with nature – which can lead to ignorance and apathy. If we want our learners to take positive environmental action, we need them to care about nature – for “... in the end, we will conserve only what we love...”. We must not forget that nature is beautiful! We should take the time to celebrate and enjoy it!

One way that we can champion the environment is by celebrating an environmental day. There are various special days to choose from throughout the year, to celebrate at our schools and in our communities. We can have fun and be creative in expressing our love and appreciation for the environment by using the arts. This can be done through different mediums such as drama, murals, songs and posters. Teaching about nature can provide knowledge, improve understanding and thereby inspire an appreciation for nature.
1. AN ENVIRONMENTAL DAY

Environmental days are an opportunity to come together as a global community, to raise awareness and educate ourselves and others about important environmental issues. They encourage people to appreciate and celebrate the wonders of the natural world. We can choose to celebrate environmental days that are relevant to Namibia, or we can choose days that provide an opportunity to learn about something outside of the Namibian context.

To get started, we can familiarise ourselves with an annual environmental calendar. A successful environmental day celebration needs to be planned well in advance!

There are several organisations in Namibia - such as the Ministry of Environment, Forestry and Tourism and local NGOs - that officially celebrate certain environmental days, making it easy for us to join them. Toolkit 1 – Environmental Knowledge provides the theory for many of the environmental days.

DAYS ABOUT SPECIAL ANIMALS

There are several NGOs in Namibia that focus on the conservation of specific animals. We can use their resources to educate our learners about these special animals – many of which are endangered – or organise a trip to their education center - see Toolkit 3.8 - Teaching in the Great Outdoors.
DAYS FOR NATURE & SUSTAINABILITY

Environmental days about nature and sustainability offer opportunities to learn about other environments and how we can affect them, even though we may impact them. Wetlands are important, but vulnerable habitats – worthy to celebrate and protect.

Another well-known environmental day is World Water Day (22nd Mar.). Water is a very precious resource for Namibia (refer to Toolkit 1.3 - Environmental Issues in Namibia and Toolkit 3.3 - Reduce Resource Use). However, our soils are also a precious resource - we can raise awareness about the importance of soil health by celebrating World Soil Day (5th Dec.). Another popular environmental day is Arbour Day, which Namibia celebrates on the second Friday in October – why don’t we all plant indigenous trees? Refer to Toolkit 3.4 - Bring Biodiversity into the Schoolyard for more resources on soil health and planting.

World Oceans Day (8th June) is celebrated annually by the Ministry of Fisheries and Marine Resources. We can find out what they are planning for the next World Oceans Day and join them if possible!

There are some days that have similar themes such as Earth Day (22nd April) and World Environment Day (5th June) – both of which are quite broad and can entail anything regarding the earth or environment. Use Toolkit 1 and Toolkit 3.4 for ideas.

Earth Hour (27th Mar.) is an hour where people all over the world turn off electrical appliances and lights, to raise awareness about the need to reduce the use of fossil fuels for generating electricity.

Let us reduce our waste by celebrating World Recycling Day (18th Mar.), World Clean-up Day (18th Sep.), Plastic Free July or the Zerowaste Week in the first week of September. Learn more about creative recycling projects in the following section, and go to Toolkit 3.10 - Sharing with Others and get more resources on how to organise clean-ups.

Do you want to celebrate World Wetlands Day (2nd Feb.)? Read the booklet Wetlands of Namibia.

Watch the video World Oceans Day for Schools 2020 and read the Activity Guide: Increasing Ocean Literacy.

Watch the video on World Environment Day 2021.

Watch the video #itsup2us to make a better Namibia to understand how it is our daily actions and attitude that make the difference.
2. USE THE ARTS

For many artists, nature was and still is a great source of inspiration. However, the arts can also inspire a love for the environment and play a powerful role in fostering a more personal and emotional connection between humans and nature. We don’t have to be art teachers to incorporate the arts into our subjects.

The arts include:
- visual arts, e.g. painting or crafting
- music and singing
- poetry
- drama
- dancing
- storytelling

Art can also be a facilitator in understanding nature, as well as a means to grapple with and express concern about environmental issues. There is an abundance of resources on how to use the arts in environmental education – known as **Art-based environmental education**.

Creating and making art does not have to be expensive or difficult. Eco-art can be a creative recycling project for our learners!

Children of all ages love and respond to music. We can let our learners write and compose their own songs about nature. If we have learners who can play instruments, we should involve them!

-PABLO PICASSO

“Every child is an artist. The problem is to remain an artist once they grow up.”

To get an overview, read Edu-Venture’s *Art-based Environmental Education Manual* which gives guidance on visual arts, music, poetry, drama and storytelling.

Get a variety of ideas on recycling crafts by reading *Recycled Arts and Crafts Guide* and the *It Costs Almost Nothing* book.

Get musical: read WWF’s *Environmental Studies – Magic with Music*.

Together with your students watch the music video *Samalilani “Preserve”* – an environmental song from Zambian singers.
Poetry is another powerful way that we can connect to nature. The Romantic era was a time where poets wrote a lot about their love and yearning for nature. We can encourage our learners to write their own poems about their favourite place in nature, or their favourite plant or animal.

We can also get our learners onto the stage to celebrate nature in various types of performances. We can organise a fashion show made from recycled materials. We can challenge ourselves or our learners to choreograph a dance performance about the environment. This can be done in combination or separate to an environmental play.

Another form of art that we can do with our learners is Land Art. This has the advantage that we also go outside into nature! Anyone can be a land artist – small children, adolescents and adults!

Land art is an art movement that originated in the 1960s and 1970s. Land artists make their art outside in nature, only using natural materials found at that location e.g. soil, rocks, vegetation and water. The artwork is a natural part of the landscape and will eventually weather away again. Taking photos of the artwork is important to remember it.
3. TEACH ABOUT NATURE

Regardless of which subject we teach, there is always the opportunity to teach about nature - we can even team-teach or to combine subjects, e.g. biology and art. This is automatically taking an interdisciplinary approach, which is an essential part of ESD.

This section looks at what we can teach about nature in our different subjects. We can use this content to teach both inside and outside our classrooms. See Toolkit 3.8 for more ways on how to teach about nature outside the classroom.

PRE-PRIMARY & JUNIOR PRIMARY PHASE

The earlier we inspire an enthusiasm in our learners for nature, the better! Children are naturally curious and drawn towards nature.

For teachers in the junior primary phase, have a look at NaDEET’s It’s Time to Grow: Animals and Plants.

Use the Namibian PAKO Kids Magazine and their website to teach your junior primary learners about wild animals in a fun way.

Environmental Education Activities for Primary Schools is a great resource to teach about natural science concepts in a practical way, using inexpensive materials.

BIOLOGY & ART

Both biology and art require close observations and entail the study of patterns. Art can help learners focus when studying plant and animals in detail. This can help them engage with the subject in a different way than they normally would in science.

Read the East Africa Waldorf Teacher Programme’s Human and Animal Study Manual for Grade 4-6 and the Plant Study Manual for ideas on how to use art for nature studies with primary school learners.
For upper primary or secondary phase learners, make nature journaling a part of a biology project.

**MATHEMATICS & SCIENCE**

1, 1, 2, 3, 5, 8, 13, ...

In mathematics, we can include nature in topics such as geometry, statistics and drawing graphs. In upper primary and secondary phases, we can explore the Fibonacci sequence in nature!

**BIOMIMICRY**

is another concept that we can introduce across several science subjects. Once we have learned more about biomimicry and its design principles, we can teach them to our learners and help them to apply them in inquiry-based lessons and projects.

**BIOLOGICAL DEGREES**

is made up of different categories, which may change depending on the level of study. The categories include:

1. Baccalaureate
2. Bachelor’s Degree
3. Master’s Degree
4. Doctoral Degree

**BIOLOGICAL DEGREES**

are awarded to learners who have completed a program of study that is offered by a college or university. These degrees are usually earned after completing a specific number of credits or courses.

For some inspiration, watch the videos *Nature by Numbers* and *Spirals, Fibonacci and Being a Plant*.

For an introduction to biomimicry, watch the videos *The World is Poorly Designed but Copying Nature Helps* and *5 Amazing Biomimicry Examples*.

Read the teacher guide *Sharing Biomimicry with Young People* and *Inspiration from Nature* to learn more about biomimicry and how to teach it. Use the lesson plans in *Techniques from Nature* for ideas.
ACCOUNTING, BUSINESS AND LIFE SKILLS

In business, financial and lifestyle related subjects, we can teach about nature by introducing our students to ecosystem services. Our economies and businesses all depend on these ecosystem services in a direct or indirect way.

With secondary students, we can start discussing how we can add more value by putting a price on ecosystem services, as many of these are not accounted for in the price of products - known as environmental externalities. We can also use real data in our accounting classes, e.g. the school’s water and electricity bills – this can be part of our school’s environmental audit (see Toolkit 3.3). Also, together with our secondary school learners, we can learn more about the green economy.

GREEND ECONOMY

“The United Nations Environment Programme (UNEP) defines a green economy as ‘one that results in improved human well-being and social equity, while significantly reducing environmental risks and ecological scarcities.’ It is an economy that is low-carbon, resource efficient and socially inclusive.”

UNESCO & UNEP, 2016

RESOURCE CHECK

Read or print out Chapter 11 “Money and jobs, linking them with biodiversity” on pg. 41 - 44 in UNESCO’s YouthXchange - Biodiversity and Lifestyles Guidebook.

RESOURCE CHECK

Learn with your secondary students about concepts such as the ‘green economy’ from UNESCO’s YouthXchange - Green Skills and Lifestyle Guidebook.

RESOURCE CHECK

The activity described on pgs. 50 - 58 in Environmental Education Trainers Guide for Nature Conservation explores how economics, consumerism and the environment are connected – do this activity with your secondary school learners.
LANGUAGES

Whether we are teaching a first, second or a foreign language, we can easily bring nature into our lessons, at any phase level! Incorporate nature into the following activities:

- spelling bees
- writing & reading poems
- oral presentations & debates
- comprehension & reading exercises
- argumentative or descriptive essays
- narrative essays & short stories

Refer back to Toolkit 1 and Toolkit 3.1 – Teach an ESD Lesson Plan for ideas on content.

SOCIAL STUDIES (HISTORY & GEOGRAPHY)

In our social studies or history lessons we can celebrate nature by exploring how different cultures across the world and through time viewed nature, and what role it played in their belief systems, their art and food. Namibia has several sites with rock art made by indigenous people long ago, many of which depict animals and plants that depict or symbolise Namibian animals and plants.

Geography lends itself to teach in more depth about our physical landscapes and climatic regions. Namibia is often referred to as a geologist’s dream. Because most of our country is sparsely vegetated, one can clearly see the geological formations. So, we can use Namibian examples to teach about weathering processes, different types of rocks, river systems, types of rainfall, nutrient cycling, etc.

Refer back to Toolkit 1 and Toolkit 3.8 – Teaching Resource Kit for Dryland Countries for more theory and examples of Namibia’s geology and climate.
1. AN ENVIRONMENTAL DAY

WEssa 2021 Environmental Days Calendar

**Calendar:** This planner shows the major international and Africa-specific environmental days. It includes a reference system where the environmental day is linked to the corresponding and relevant SDG.

**Author:** WEssa (2021)


GiraffE Conservation Foundation Resources

**Booklet & Activity Book:** Africa’s Giraffe: A Conservation Guide booklet educates on giraffe conservation efforts. The Nature Workbook is an educational activity book on nature for young children, including educational material.

**Author:** Giraffe Conservation Foundation (2016 and 2021)


EHra Educational Resources

**Booklet & Activity Book:** Designed to be used with different age groups, these educational resources form EHRA cover species knowledge, elephant-human conflict and elephant protection. It also gives practical how-to information during elephant encounters.

**Author:** EHRA (2019 and 2020)

Community Elephant Conflict Mitigation Workshop:
[https://static1.squarespace.com/static/5cab5076797f7475f98c1b42/t/5d237c8f9813d80001e01c18/1562606748846/04+Community+Training+2.pdf](https://static1.squarespace.com/static/5cab5076797f7475f98c1b42/t/5d237c8f9813d80001e01c18/1562606748846/04+Community+Training+2.pdf)

Junior Elephant Guard Handout and Field Workbook:
[https://static1.squarespace.com/static/5cab5076797f7475f98c1b42/t/5feae8177ded4178ae93b33d/1609230426336/EHRA_Handout+Schools.pdf](https://static1.squarespace.com/static/5cab5076797f7475f98c1b42/t/5feae8177ded4178ae93b33d/1609230426336/EHRA_Handout+Schools.pdf)

A Predator’s Role in The Ecosystem

**Manual:** This teacher’s guide initially shows the correlation between Namibian National Syllabi and teaching about predators, and then provides lesson plans, activities and the corresponding material.

**Author:** Cheetah Conservation Fund (2016)


World Rhino Day Lesson Plan

**Lesson Plan:** Developed to increase knowledge and awareness for rhinos, this resource is a three-stage lesson plan on why rhinos are endangered. It includes material, a vocab list and educational information.

**Author:** Children in the Wilderness (2017)

RESOURCES

**Wetlands of Namibia**

**BOOKLET:** This booklet informs on what wetlands are, the state of wetlands and types of wetlands in Namibia, and the role they play as a natural resource. It also explores pressures on the wetlands and management thereof.

**AUTHOR:** S. Bethune, D. Shaw, K. Roberts and Wetland Working Group of Namibia (2004)

**World Ocean Day for Schools 2020**

**VIDEO:** This video introduces the celebration of World Ocean Day for Schools, explaining what it is, the motivation behind the initiative, and shows how it is celebrated around the world including ideas for schools.

**AUTHOR:** World Ocean Day for Schools (2020)

Link: [https://www.youtube.com/watch?v=q8LY5H06hw](https://www.youtube.com/watch?v=q8LY5H06hw)

**Increasing Ocean Literacy**

**MANUAL:** This activity guide is for organizing an event for World Ocean Day. It includes documents that inform activities relating to marine litter and plastic pollution, as well as material for suggested activities.

**AUTHOR:** E. Alger, World Ocean Network (2020)

Link: [https://www.seachangeproject.eu/ouroceanourhealth/ocean-literacy-resources/world-ocean-day-activity-guide](https://www.seachangeproject.eu/ouroceanourhealth/ocean-literacy-resources/world-ocean-day-activity-guide)

**World Environment Day 2021**

**VIDEO:** This animated video gives the history to World Environment Day, explaining impacts the day has had. It then outlines the context and aims of the 2021’s theme of Ecosystem Restoration.

**AUTHOR:** The Assorted Bag (2021)

Link: [https://www.youtube.com/watch?v=4PvGNzi1dnY](https://www.youtube.com/watch?v=4PvGNzi1dnY)

**#itsup2us to make a better Namibia**

**VIDEO:** Local artist, EES, challenges Namibia to participate in a clean-up of the country and gives ideas how to do this, including a challenge that the national budget be more focused on this issue.

**AUTHOR:** EES (2018)

Link: [https://www.youtube.com/watch?v=d_2D9mEjqB0](https://www.youtube.com/watch?v=d_2D9mEjqB0)

**2. USE THE ARTS**

**Art-based Environmental Education (AEE) Manual**

**MANUAL:** This manual outlines the concept of art-based environmental education, explaining the concept and how to apply this knowledge to the art-based subjects. It also contains lesson plans and activity ideas.

**AUTHOR:** EduVentures (2019)
**Recycled Arts and Crafts Guide**

**MANUAL:** This guide for teachers gives instructions for conducting arts and crafts projects out of recycled materials, and includes guidance on educating children about recycling through engaging with the activities.

**AUTHOR:** Schools Recycle, Planet Ark (n.d)

**Link:** [https://slco.org/globalassets/1-site-files/recycle/teacher_resources/recycledartsandcraftsguide.pdf](https://slco.org/globalassets/1-site-files/recycle/teacher_resources/recycledartsandcraftsguide.pdf)

**It Costs Almost Nothing**

**MANUAL:** Following some background information, this book gives step-by-step instructions for creating various toys and games from rubbish and recycled materials for young children.

**AUTHOR:** M. Gallagher, M. Harlech-Jones (2007)


**Environmental Studies – Magic with Music**

**ARTICLE:** This resource is comprised of case studies where schools have taught environmental topics through using music in various ways. Through examples, it guides on how to use music as a teaching tool in EE.

**AUTHOR:** L. Borradaile (2000)

**Link:** [http://assets.wwf.org.uk/downloads/magic_with_music.pdf](http://assets.wwf.org.uk/downloads/magic_with_music.pdf)

**Samalilani 'Preserve' - Zambian Music for Earth**

**VIDEO:** This video is the result of a culmination of Zambian artists and the Conservation Music movement: a collaborative song to convey the message of needing to protect and live in harmony with our environment.

**AUTHOR:** Conservation Music (2018)

**Link:** [https://www.youtube.com/watch?v=q9F9LEEoUGE](https://www.youtube.com/watch?v=q9F9LEEoUGE)

**Green Poetry**

**LESSON PLAN:** With examples and links to further inspiration, this resource gives instructions for nature-inspired poetry writing and guidance on how to do so, including writing different types of poems.

**AUTHOR:** Forest Preserves of Cook County (2020)


**Rain Must Fall – #breakingballet**

**VIDEO:** Playing on the phrase ‘breaking news’ from news reporting, #breakingballet presents the Western Cape (South Africa) drought crisis by using ballet as a means of communication to raise awareness and publicity on the situation.

**AUTHOR:** Joburg Ballet (2017)

**Link:** [https://www.youtube.com/watch?v=xqiQ5csBtFq](https://www.youtube.com/watch?v=xqiQ5csBtFq)
RESOURCES

DANCE FACTORY SWAKOPMUND PRESENTS “LILY”

**VIDEO:** This performance by Swakopmund’s Dance Factory, “Lily” is a story that conveys the causes and effects of environmental pollution, highlighting its impact, suggesting solutions and raising awareness.

**AUTHOR:** Dance Factory Swakopmund (2018)

**Link:** [https://www.youtube.com/watch?v=BDFgRLgvEvc](https://www.youtube.com/watch?v=BDFgRLgvEvc)

SAVE THE LOFTY TREES

**LESSON PLAN:** This environmental play script, including a musical score, is themed on saving trees from felling for industrial use. It covers deforestation, sustainable practice and human impact on the environment.

**AUTHOR:** L. Mills (2005)

**Link:** [https://americanenglish.state.gov/files/ae/resource_files/05-43-1-h.pdf](https://americanenglish.state.gov/files/ae/resource_files/05-43-1-h.pdf)

ANDY GOLDSWORTHY VIDEOS

**VIDEO:** These videos aim to inspire nature-based art. The videos show how to create these natural art pieces and explain the concept, the creator and its use as an educational tool.

**AUTHOR:** S. Marcus (2020), Library Arts Centre (2020)

**Outdoor Art with Andy Goldsworthy:** [https://www.youtube.com/watch?v=sIVTVGz6UXQ](https://www.youtube.com/watch?v=sIVTVGz6UXQ)

**Andy Goldsworthy-inspired Nature Art:** [https://www.youtube.com/watch?v=f6i5cxbm6ac](https://www.youtube.com/watch?v=f6i5cxbm6ac)

NATURE INSPIRED ARTS AND CRAFTS

**PRESENTATION:** Presenting various schools nature inspired arts/crafts projects, each project includes a visual and step-by-step guide on how the project was created, and tips from teachers who carried out the projects.

**AUTHOR:** Planet Ark (2015)


3. TEACH ABOUT NATURE

TEACHER’S TRAINING MANUAL - BIODIVERSITY

**MANUAL:** This teacher’s manual covers the theory behind EE and ESD, before educating on the topic of biodiversity, including ecosystem services. It also contains related activity ideas for the classroom.

**AUTHOR:** EduVentures (2020)

IT’S TIME TO GROW: ANIMALS AND PLANTS

**ACTIVITY BOOK:** Aimed at young children, this educational booklet (in 6 Namibian languages) focusses on animals and plants, and their interaction. It uses age-appropriate activities for junior primary school.

**AUTHOR:** V. Keding (2019)

**Link:** [https://nadeet.org/its-time-toseries](https://nadeet.org/its-time-toseries)
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**PAKO Kids Magazine**

**ACTIVITY BOOK and WEBSITE:** A local children’s educational magazine on nature and animals, issues include activities, information and tips. The website links to all issues, and educational materials.

**AUTHOR:** PAKO

Link: [http://pako4kids.com/cleverkids/pakos.htm](http://pako4kids.com/cleverkids/pakos.htm)

**Environmental Education Activities for Primary Schools**

**MANUAL:** A collection of activities for primary school level, to be integrated into an environmental education programme. The list of ideas suggested specifically use low cost equipment and easily accessible materials.

**AUTHOR:** UNESCO, International Centre for Conservation Education (1992)

Link: [https://unesdoc.unesco.org/ark:/48223/pf0000096345](https://unesdoc.unesco.org/ark:/48223/pf0000096345)

**Human and Animal Study Manual for Grade 4-6**

**MANUAL:** This educational resource for teachers, is written as an easy-to-understand guide on teaching the connection between humans and animals. It includes subject information, teaching methods and activities.

**AUTHOR:** C. Van Alphen (2012)


**Plant Study Manual**

**MANUAL:** This booklet created to inform teachers with theoretical knowledge and suggestions of how to teach the subject of ‘plants’ as per Waldorf Education principals. The manual can also be used with learners.

**AUTHOR:** C. Van Alphen

Link: [https://www.zukunftsstiftung-entwicklung.de/media/Bilder_ZSE/UEber_Uns_Dateien/Grundlagentexte/PLANT_STUDY_MANUAL.pdf](https://www.zukunftsstiftung-entwicklung.de/media/Bilder_ZSE/UEber_Uns_Dateien/Grundlagentexte/PLANT_STUDY_MANUAL.pdf)

**STEM Learning through Science-based Nature Journaling (for Middle and High School Teachers)**

**MANUAL:** This teacher guide on nature journaling and how to go about it introduces the concept before it explains the process, explores tools, techniques, class discussion and project ideas, and means of evaluation.

**AUTHOR:** K. Brandes (2014)

Link: [https://issuu.com/nurturenaturecenter/docs/building_teacher_s_notebook](https://issuu.com/nurturenaturecenter/docs/building_teacher_s_notebook)

**Nature Journal Ideas**

**PRESENTATION:** An instructional presentation on how to approach nature journaling, what it is and tips for how to make a nature journal. It includes visual prompts and examples, as well as ideas for journaling entries.

**AUTHOR:** My Woodlot (n.d)

Link: [http://www.mywoodlot.com/images/supporting_information/nature_journal_ideas.pdf](http://www.mywoodlot.com/images/supporting_information/nature_journal_ideas.pdf)
## RESOURCES

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### UNESCO Biodiversity Learning Kit – Volume 2, Activities

**MANUAL:** This collection of activities on the various aspects of biodiversity, forms an educational kit for interdisciplinary teaching on the topic; including step-by-step teacher guidance and projected activity outcomes

**AUTHOR:** UNESCO (2017)

Link: https://unesdoc.unesco.org/ark:/48223/pf0000245982

### Biodiversity Challenge Badge and Resource Materials

**BOOKLET** and **MANUAL:** A part of the Challenge Badge series, this educational material on the subject of biodiversity is for young people (**Biodiversity Challenge Badge**) and there is a corresponding teacher’s guide (**Biodiversity Challenge Badge Resource and Activity Materials**) to supplement teaching on the subject.

**AUTHOR:** Food and Agriculture Organisation of the United Nations (2010)

- Biodiversity Challenge Badge: http://www.fao.org/3/i1885e/i1885e.pdf

### Fibonacci Videos

**VIDEO:** These videos show the presence of the Fibonacci sequence in nature, and other numeracy examples that occur in the natural world. Both illustrate and explain the presence of math and science in nature.

**AUTHOR:** Etérea Studios (2010), Vihart (2012)

- Nature by Numbers: https://www.youtube.com/watch?v=kkGeOWYOFoA
- Spirals, Fibonacci and Being a Plant: https://www.youtube.com/watch?v=lOIP-Z_0Hs

### Biomimicry Videos

**VIDEO:** These videos illustrate how nature’s designs can provide an example for the human built world to imitate in design and practice. They include examples of biomimicry techniques, explaining this principle.

**AUTHOR:** Vox (2017), Sustainably Illustrated (2020)

- The World is Poorly Designed but Copying Nature Helps: https://www.youtube.com/watch?v=iMtXqTmfta0
- 5 Amazing Biomimicry Examples: https://www.youtube.com/watch?v=5FZ9Rx5zAk

### Sharing Biomimicry with Young People – An Introduction for K-12 Educators

**MANUAL:** This guidebook aims to inform teaching a foundational understanding of biomimicry. It includes resource material and suggestions for introducing the topic and way of problem solving to learners.

**AUTHOR:** Biomimicry Institute (2017)

Link: https://asknature.org/resource/sharing-biomimicry-with-young-people/
**Inspiration from Nature – Science, Design and Technology**

**MANUAL:** Acknowledging the role of nature in inspiring and informing science, design and technology, this teacher’s guidebook gives activities and resource sheets for learning from and about nature and biomimicry.

**AUTHOR:** WWF (2020)


**Techniques from Nature**

**LESSON PLAN:** Exploring the concept of biomimicry, these lesson plans focus on design cycles, biomimicry understanding and using nature-based solutions to solve technical problems.

**AUTHOR:** P. Janssen, M. de Koning, M. Nijssen, B. Wijffels (2019)


**Nature’s Services: A Guide for Primary School on Ecosystem Services**

**MANUAL:** Beginning by explaining the concept ecosystem services, this booklet then guides on best practice to teaching the topic, including objective suggestions, activities and evaluation methods.

**AUTHOR:** P. Wiborn (2013)

Link: [https://www.wwf.se/dokument/natures-services-a-guide-for-primary-school-on-ecosystem-services/](https://www.wwf.se/dokument/natures-services-a-guide-for-primary-school-on-ecosystem-services/)

**YouthXchange Resources**

**BOOKLET:** Aimed at ages 15-24, these resources (Biodiversity and Lifestyles Guidebook and Green Skills and Lifestyle Guidebook), contain educational material to build knowledge on biodiversity and greening application, and guide on the corresponding practical life skills that protect and sustain the planet.

**AUTHOR:** UNESCO, UNEP (2015 and 2016)


**Environmental Education Trainers Guide for Nature Conservation**

**MANUAL:** Directed at environmental educators, this guide gives information and correlating activities to build an educator’s knowledge and understanding of EE with a focus on conservation.

**AUTHOR:** M. Matarasso, N. Viet Dung (2002)


**Rock Art: A Cultural Treasure at Risk**

**BOOK:** This book informs on the protection of the heritage of rock art. It includes information and foundational protection and preservation principles.

**AUTHOR:** N. Agnew, J. Deacon, N. Hall, T. Little, S. Sullivan, P. Taçon (2015)