# The Bharat Scouts and Guides

National Headquarters

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To
All the State Secretaries,
State Associations of
The Bharat Scouts and Guides,
**INDIAN UNION**

**Circular No.: 76 / 2020**
**Date : 05th June, 2020**

**SUB: EARTH TRIBE LAUNCHES BY WOSM AS NEW EDUCATION INITIATIVE FOR ENVIRONMENTAL ACTION**

Dear Sir/Madam,

On the day of World Environment Day, World Organisation of the Scout Movement (WOSM) announce a major milestone with the launch of **the Earth Tribe** - a new initiative for environmental education that will engage young people in a global movement for environmental action. The Earth Tribe will replace the World Scout Environment Programme, which was conceptualised in 2008 to enhance our work around environmental education in Scouting.

The Earth Tribe is an exciting new offering, as part of the Better World Framework, to support young people in developing the key competencies needed to become environmental leaders. This new initiative, which focuses on the environment and sustainability, also builds on the commitment through Scouts for SDGs to mobilize the Movement in contributing towards the Sustainable Development Goals.

Through the Earth Tribe, young people can learn how their personal choices and habits have an impact on the environment. They can learn this by taking action in their communities through a series of engaging Earth Tribe Challenges to preserve and protect our planet.

The launch of the Earth Tribe, which coincides with World Environment Day, is designed to ensure that Scouting continues to offer a relevant and self-progressive education experience that tackles some of the most pressing environmental challenges facing our planet, such as the urgency of climate change, reliance on fossil fuels, rising consumption habits, and a loss of nature and biodiversity.

Whether at home or in the community, Scouts, Guides, Rovers, Rangers and Adult Leaders are invited to join the global Earth Tribe community by taking part in a series of Earth Tribe Challenges focused on four learning paths related to environment and sustainability. Among the first Challenges to be featured as part of the Earth Tribe are:

**Champions for Nature** - Designed in partnership with WWF

**Tide Turners Plastic** - Designed in partnership with UN Environment

**Scouts Go Solar** - Designed in partnership with Solafrica.

As the Earth Tribe continues to grow as a platform for environmental action, more Challenges and gamification elements involving partners will be added to the initiative, providing even more opportunities for young people to earn recognition badges and become champions for sustainability.

A series of new Earth Tribe implementation manuals and Challenge action kits have been developed by WOSM to enable NSOs and Adult Leaders to introduce the new initiative within their existing national Youth Programme. These tools, resources and materials, along with information about the Earth Tribe Challenges, are available at earthtribe.scout.org.

After completing all the challenges you should submit your report to info@bsgindia.org

Thanking you,

Yours Sincerely,

**(ARUP SARKAR)**
**DY. DIRECTOR OF SCOUTS (P)**

**Encl.: Action Kits**

**Copy to:-**

1. All the NHQ Office Bearers of the Bharat Scouts and Guides, National Headquarters.
2. Chairman/Secretary, Railway Scout and Guide Board, Rail Bhawan, New Delhi.
3. The Commissioner, Kendriya Vidyalaya Sangathan, 18 Institutional Area, Shahid Jeet Singh Marg,New Delhi - 110016.
4. The Commissioner, Novadaya Vidyalaya Samiti, Institutional Area, B-15, Sector - 62, Noida-201309, Uttar Pradesh.
5. All the District Secretaries, District Association of Dammam, Riyad, Muscut and Jamiat Youth Club with a request to take necessary action.

ACTION KIT

# Champions for Nature Challenge

Earth Tribe's recognition for the Better Choices and Nature and Biodiversity learning paths

SCOUTS®
Creating a Better World

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SCOUTING DEVELOPMENT
June 2020

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This document is primarily for National Scout Organizations (NSOs), National Scout Associations (NSAs) and educational institutions in general.

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earthtribe®

WWF

The World Wide Fund for Nature (WWF) is one of the largest environmental organisations in the world. For almost 60 years, WWF has worked to help people and nature thrive. As the world's leading conservation organization, WWF works in more than 100 countries. At every level, they collaborate with people around the world to develop and deliver innovative solutions that protect communities, wildlife, and the places where they live.

WWF's mission is to stop the degradation of the planet's natural environment and to build a future in which humans live in harmony with nature, by conserving the world's biological diversity, ensuring that the use of renewable natural resources is sustainable, and promoting the reduction of pollution and wasteful consumption.

# Champions for Nature Challenge

Earth Tribe's recognition for the Better Choices and Nature and Biodiversity learning paths

# CONTENT

## WOSM

Scouting provides young people with opportunities to participate in programmes, events, activities and projects that contribute to their growth as active citizens. Through these initiatives, young people become agents of positive change who inspire others to take action.

## WWF

This Challenge is represented by a very well known and charismatic black and white animal - the Panda - that was classified as an endangered species for a long time and a symbol of the WWF since its formation in 1961. In 2016, the Panda was reclassified as a vulnerable species and continues to be a world symbol when it comes to species conservation.

Through the partnership with WWF, WOSM has reviewed its approach to environmental education; Scouts have engaged in worldwide campaigns such as the global celebration of Earth Hour; some National Scout Organisations have established local collaboration with WWF to educate young people about environment; and the Scouts Movement has received expert advice in developing the Earth Tribe Initiative and the Champions for Nature Challenge.

## This Champions for Nature Challenge Action Kit is designed for young people to:

- Explore and understand different environmental issues related or as a result of consumption habits in the learning paths of **Better Choices** and **Nature and Biodiversity**.
- Be able to identify the needs and challenges related to personal habits, responsible consumption and our interaction with nature, in your community and work with others to create sustainable solutions
- Take action to contribute in solving specific issues related to **Better Choices** and **Nature and Biodiversity**, while working with key stakeholders: community, your group, or partners.

Through the Champions for Nature Challenge, you are walking on the journey to becoming a member of the Earth Tribe.

This Challenge is designed for all young people from seven years and above, eager to discover new ways to advocate and contribute to the protection of nature, and develop new consumption habits that actively contribute to protecting our natural resources. The Champions for Nature Challenge offers meaningful content and activities for you.

Explore the requirements of this Action Kit to complete the Champions for Nature Challenge and become a member of the Earth Tribe as a:

### Advocate for better choices

Adopt and advocate for meaningful habits towards developing an eco-friendly and healthy lifestyle

OR

### Champion for Nature

Understand ecosystems and connect with nature, and adopt sustainable practices in protecting natural resources

# Champions for Nature Challenge and Earth Tribe journey

The Champions for Nature Challenge is one of the many Challenges that enable to become part of the Earth Tribe. Adults will support you to succeed in this journey.

**Discover and share interest to take on Challenge**

- Introduction to becoming a member of the Earth Tribe
- the Champions for Nature Challenge
- Conduct a self-assessment on your habits and knowledge on nature

**Agree with an adult leader on personal path (be aware, cooperate, act) by**

- Agree on knowledge, attitudes and activities related to a specific age range for the Champions for Nature Challenge
- Agree on a community development project focused on Better Choice or Nature and Biodiversity
- Agree on the complementary actions for recognitions

**Carry on agreed actions**

- Become aware by obtaining and sourcing information
- Cooperate by planning projects or joining events
- Act by executing projects, doing good turns or participating in advocacy or promotional initiatives
- Share actions on scout.org and the SDG hub

**Evaluate the results and impact with peers, beneficiaries and adult leaders**

- Engagement, promotion and advocacy actions
- Community development project

**Reflect and evaluate your COMPETENCIES with with peers, beneficiaries and adult leaders**

- skills,
- knowledge and
- attitudes developed

**Adult Leader presents the Champions for Nature Challenge Badge**

- Celebrate in meaningful and simple ceremony in your team.
- Recieve the badge and certificate

Now you are a Member of the Earth Tribe

CONGRATULATIONS

You have become a

**Advocate**

for better choices and a healthy lifestyle

OR

**Champion**

Champion for Nature and Biodiversity

You are now a member of the global Earth Tribe and can continue your journey by completing other Challenges to contribute more towards the SDGs.

**Continue with a new Earth Tribe Path**

Any other you have not explored yet

- Better Choices
- Nature and Biodiversity
- Clean Energy
- Healthy Planet

## How:

The Scouts for SDGs mobilisation aims to inspire, enable and deliver on a commitment to develop active global citizens and sustainable communities. The learning process of the Earth Tribe enables young people to explore and define their educational journey in three stages:


Earth Tribe
Competencies for
environmental education

- **Be aware** of the world around you and key environmental concerns.
- **Cooperate** with others to find solutions to protect ecosystems, biodiversity and outdoor spaces.
- **Act** to develop and implement actions that can make a difference.

The Champions for Nature Challenge contributes to the development of young people with a specific set of actions related to the learning paths of Better Choices, and Nature and Biodiversity. Young people, with the support of adults, use the same process in each age section, selecting a different set of activities accordingly.

## Champions for Nature Challenge - Be Aware

**What is it about**

Explore and understand different environmental issues related or as a result of the consuming habits of humans

**How:**

- **Complete a self-assessment** on your knowledge and understanding of the relationship between humans, nature and biodiversity.
- **Decide** which learning path you would like to work on - **Better Choices** or **Nature and Biodiversity.**
- **Do** the number of activities according to the age section (two activities for Cub Scouts and three activities for Scouts and Rovers) included in any of the **Better Choices** or **Nature and Biodiversity** learning paths. Or do your own activities if it is matching the competencies suggested in the age section for any of the paths.
- After exploring and executing the activities in the Action Kit, **decide** the path you will use as inspiration to develop a community service project.

## Champions for Nature Challenge - Cooperate

**What is it about**

Being able to identify the needs and challenges in your community and work with others to create sustainable solutions.

**How:**

- **Identify issues or needs** in your community with your group, community and partners.
- **Explore possible solutions together** and decide which one to work on as a project
  - Brainstorm different options with community members
  - Check the feasibility of the projects and sustainability in the long term.
  - Present results to community members of beneficiaries
  - Agree on solution to bring into action

- **Design an action plan** to execute your project, communicate it and gather the necessary funds and resources.
  - Set up one SMART goal : (Specific - Measurable - achievable - Realistic - Time-based)
  - Apply sustainability principles in your plans and be mindful of the use of resources.

### Champions for Nature - Act

**What is it about**

Take action to contribute in solving a specific issue related to Better Choices or Biodiversity while working with the key actors: community, your group, partners.

*you can use "How to develop a community service project - guidelines" for the two steps of "Corporate & Act"*

**How**

- **Execute** the agreed plans for your service project
  - Execute your plans in collaboration with community members and partners
  - Monitor the plans and progress of actions
- Evaluate it (Goals, impact, individual collective evaluations, etc)
- Report and Share on Scout.org and SDG hub
- Celebrate and recognize efforts with peers, beneficiaries, and partners.

**Explore the activities and tools of this action kit and get started with your Champions for Nature Challenge journey to become a member of the Earth Tribe.**

# 1 Self-assessment

## Champions for Nature Challenge

Great work on taking on the Champions for Nature Challenge! Before forging ahead, please take this self-assessment. This will help you to better understand your knowledge and awareness in the areas of Better Choices and Nature and Biodiversity.

- Choose the sheet of your age section
- Tick the boxes next to each point in the two areas of Better Choices & Nature and Biodiversity, based on your personal knowledge, skills, and attitude.
- Write down some notes in the section of "My Personal Goals" and "My Activities" to kickstart your challenge journey..

**Note:**

*If you are below 15 years old, please use the assistance of your leader to fill the form.*

## Self-assessment

## Champions for Nature Challenge

**Name:**

**Mark with √ or X in what level do you see yourself for each of these learning objectives.**

Discover - I am at the beginning of my exploration.

Exploring - I am on my exploration.

Aware - I have finished my exploration.

| | | | | | | |
|---|---|---|---|---|---|---|
| **Age section (7-10)** | | I am at the beginning of my exploration. | I am on my exploration. | I have finished my exploration. | **My Personal Goals** I can choose an issue I want to work on through positive actions(assisted by an adult) | **My Activities** Define an activity or project (personal or with my team/ patrol) |
| | | (√ or X) | | | Write notes to start your Champions for Nature Challenge journey | |
| **Better Choices** | | | | | | |
| 1 | I know what I can do to live healthily and how to reduce my impact on the environment. | | | | | |
| 2 | I reduce my personal wants in light of the needs of the natural world, other people and future generations. | | | | | |
| 3 | I use every opportunity for pro-environmental behaviour. | | | | | |

| Age section (7-10) | | I am at the beginning of my exploration. | I am on my exploration. | I have finished my exploration. | **My Personal Goals**<br><br>I can choose an issue I want to work on through positive actions(assisted by an adult) | **My Activities**<br><br>Define an activity or project (personal or with my team/ patrol) |
|---|---|---|---|---|---|---|
| | | (√ or X) | | | Write notes to start your Champions for Nature Challenge journey | |
| **Nature and Biodiversity** | | | | | | |
| 1 | I know my countryside and learn about local habitats and species. | | | | | |
| 2 | I feel good and enjoy the outdoors and appreciate nature. | | | | | |
| 3 | I respect other living organisms while spending time in nature and I know how to behave to avoid impacting them | | | | | |

**Name:**

| **Age section (11-14)** | | I am at the beginning of my path and I need to learn more about the issues | I am on my path and I started a project or activity | I understand the issues, participate in activities and projects and promote the solution to the issues | **My personal GOALS**<br><br>I can choose an issue I want to impact with positive actions | **My Activities**<br><br>Define an activity or project (personal or with my team/patrol) |
|---|---|---|---|---|---|---|
| | | (√ or X) | | | Write notes to start your Champions for Nature Challenge journey | |
| **Better Choices** | | | | | | |
| 1 | I understand connections between my lifestyle and environmental problems, as well as global wealth distribution discrepancies. | | | | | |
| 2 | I understand where my food comes from. | | | | | |
| 3 | I feel responsible for the impacts of my behaviour on the environment and other people. | | | | | |
| 4 | I feel empathy towards people who experience hunger and poverty often as a result of climate change and act to support impacted individuals. | | | | | |
| 5 | I challenge myself and my friends to reduce our impact on the environment | | | | | |

| Age section (11-14) | | I am at the beginning of my path and I need to learn more about the issues | I am on my path and I started a project or activity | I understand the issues, participate in activities and projects and promote the solution to the issues | **My personal GOALS**<br><br>I can choose an issue I want to impact with positive actions | **My Activities**<br><br>Define an activity or project (personal or with my team/patrol) |
|---|---|---|---|---|---|---|
| | | (√ or X) | | | Write notes to start your Champions for Nature Challenge journey | |
| **Nature and Biodiversity** | | | | | | |
| 1 | I know my countryside and learn about local habitats and species. | | | | | |
| 2 | I feel good and enjoy the outdoors and appreciate nature. | | | | | |
| 3 | I respect other living organisms while spending time in nature and I know how to behave to avoid impacting them | | | | | |
| 4 | I take part in events that help to protect and restore nature in our region. | | | | | |

**Name:**

| Age section (15+) | | I am at the beginning of my journey | I am on my path and I started a project or activity | I understand the issues, participate in activities and projects and promote the solution to the issues | **My personal GOALS**<br><br>I can choose an issue I want to impact with positive actions | **My Activities**<br><br>Define an activity or project (personal or with my team/patrol) |
|---|---|---|---|---|---|---|
| | | (√ or X) | | | Write notes to start your Champions for Nature Challenge journey | |
| **Better Choices** | | | | | | |
| 1 | I understand connections between my lifestyle and environmental problems, as well as global wealth distribution discrepancies. | | | | | |
| 2 | I understand where my food comes from. | | | | | |
| 3 | I feel responsible for the impacts of my behaviour on the environment and other people. | | | | | |
| 4 | I feel empathy towards people who experience hunger and poverty often as a result of climate change and act to support impacted individuals. | | | | | |
| 5 | I challenge myself and my friends to reduce our impact on the environment | | | | | |
| 6 | I evaluate my habits and modify them continuously to make them more sustainable and help others to do so. | | | | | |
| 7 | I take steps to contribute to helping people suffering from poverty and hunger a result of environmental issues. | | | | | |
| 8 | I help to change institutions and communities towards changing their practices to become more sustainable. | | | | | |

| Age section (15+) | | I am at the beginning of my journey | I am on my path and I started a project or activity | I understand the issues, participate in activities and projects and promote the solution to the issues | **My personal GOALS**<br><br>I can choose an issue I want to impact with positive actions | **My Activities**<br><br>Define an activity or project (personal or with my team/patrol) |
|---|---|---|---|---|---|---|
| | | (√ or X) | | | Write notes to start your Champions for Nature Challenge journey | |
| **Nature and Biodiversity** | | | | | | |
| 1 | I understand the roots of biodiversity loss at both the local and global levels. | | | | | |
| 2 | I can identify different standpoints in environmental conflicts and form my own opinion based on personal values. | | | | | |
| 3 | I reflect on how to live my life in harmony with nature and how to help my society to become more sustainable. | | | | | |
| 4 | In my everyday life, I take into account and measure the impact of my actions on nature and inspire others to do so as well. | | | | | |

# 2 Get Hands on

## Topics and activities to develop your competencies.

This is a sample of activities and topics that young people and adults can use to agree on to achieve the first phase "Be aware". It is optional to use the following topics and activities. You can also develop your own activities  but it must follow the competencies mentioned above. Champions for Nature implementation manual.

**Are you interested in:**

| **Better Choices** | **Nature and Biodiversity** |
| --- | --- |
| Developing Sustainable Habits towards Eco-friendly and Healthy Lifestyle | Connecting with Nature and protecting it towards sustainability |

## How we align your activities with SDGs.

The following activities are aligned with the educational objectives for Champions for nature. They also contribute for you to develop the 8 key competencies for sustainable development. with the learning objectives that in the long term will help young people to develop the competencies for sustainable development. The alignment of education for sustainable development can be done through:

Sustainable development key competencies - They are cross-cutting key competencies for achieving all SDGs. They allow young people to engage constructively and responsibly with today's world. Competencies describe the specific attributes individuals need for action and self-organization in various complex contexts and situations.

### The SDGs key competencies are the following:

- **Systems thinking competency:** the ability to recognize and understand relationships; to analyse complex systems; to think of how systems are embedded within different domains and different scales; and to deal with uncertainty
- **Anticipatory competency:** the ability to understand and evaluate multiple futures – possible, probable and desirable; to create one's own visions for the future; to apply the precautionary principle; to assess the consequences of actions; and to deal with risks and changes.
- **Normative competency:** the ability to understand and reflect on the norms and values that underlie one's actions; and to negotiate sustainability values, principles, goals, and targets, in a context of conflicts of interests and trade-offs, uncertain knowledge and contradictions.
- **Strategic competency:** the abilities to collectively develop and implement innovative actions that further sustainability at the local level and further afield.
- **Collaboration competency:** the abilities to learn from others; to understand and respect the needs, perspectives and actions of others (empathy); to understand, relate to and be sensitive to others (empathic leadership); to deal with conflicts in a group; and to facilitate collaborative and participatory problem solving.
- **Critical thinking competency:** the ability to question norms, practices and opinions; to reflect on one's own values, perceptions and actions; and to take a position in the sustainability discourse.
- **Self-awareness competency:** the ability to reflect on one's own role in the local community and (global) society; to continually evaluate and further motivate one's actions; and to deal with one's feelings and desires.
- **Integrated problem-solving competency:** the overarching ability to apply different problem-solving frameworks to complex sustainability problems and develop viable, inclusive and equitable solution options that promote sustainable development, integrating the above- mentioned competences.

The sustainable development key competencies will help you to have a better observation to evaluate the knowledge, skills and attitude the young person developed through the learning journey in the tent.

Get to know more about Education For Sustainable Development through: https://unesdoc.unesco.org/ark:/48223/pf0000247444

# Activities

## Better Choices

*"Being green is more than just buying "eco". it is an unshakable commitment to a sustainable lifestyle"*

***Jennifer Nini***

| Developing Sustainable Habits towards Eco-friendly and Healthy Lifestyle | | |
|---|---|---|
| **7 to 10** | **11 to 14** | **15 and above** |
| **Activity:** Footprint checklist | **Activity:** Walking with your food glasses on! | **Activity:** What is your stand on... |
| **Activity:** Your eco-friendly life | **Activity:** Recycling and Reducing | **Activity:** Four corners |
| **Activity:** Green or Red | **Activity:** My waste monitoring | **Activity:** Food pyramid |

You can also part in the Earth Hour celebration as part of Better Choices activities. Get to know more about the Earth Hour from this link.

Time

Age Range

Rescources and Material

Key competencies

10-15 minutes

7 - 14

- Audit your footprint template:
  - Online version[1]
  - printed version
- Markers
- Background reading material and educational resources[2]

- Critical thinking
- Reflect on norms and values


# Footprint checklist

**Summary:**

This activity helps participants to understand how they can improve their carbon footprint tracking and reduce it with a change of habits.

**Activity development:**

1. Map your carbon footprint and have a discussion on how to reduce our personal negative impact on the environment do it online with this: Online version or use this version created by Kandersteg International Scout Centre in the annex (number) printed version
2. In small groups let participants discuss and share the results of their footprint calculation.
3. The facilitator explains why it is important for individuals to reduce their carbon footprint: by reducing it we also reduce the release of greenhouse gases to the atmosphere. This reduction can help lessen the severity of future climate change. Imagine if each person took care of their consumption in an environmentally friendly way, we will have a better and healthy world for us and the other habitats)
4. You can use these Background reading material and educational resources to go deeper into the learning and exploration journey of the carbon footprint calculation.

1. Global Footprint Network
2. https://www.footprintnetwork.org/

10-15 minutes

7 - 14

- The sustainable house activity banner Annex (number)
- Scout Centre of Excellence for Nature and Environment (SCENES)
- "Get to Know SCENES" poster
- Markers and paper

- Critical thinking
- Self Awareness


# Your eco-friendly life

**Summary:**

This activity focuses on how to contribute to sustainability with daily personal habits. The participants start to reflect on their daily waste management habits and suggest ways to improve their practices. The aim of the activity is to discover more sustainable daily habits and how to adopt them.

**Activity development:**

1. The facilitator starts the discussion by explaining the importance of responsible consumption and how waste management can affect the climate and the planet.
2. The facilitator splits the group into two teams or more and shows them the graphic of the sustainability house (annex number)
3. The teams should think about the best practices for each house and section and ways to make it more sustainable and eco-friendly.
4. After brainstorming, they should write them down on small pieces of paper (like post-its) and stick it on the sustainable house graphic.
5. The facilitator gathers the teams and together they discuss and decide on the best practices that should be used.
6. After agreeing on the best practices, the participants share their reflections among them.

**Relevant information for the facilitators:**

- Highlight how our actions at home have an influence on the community and the environment.
- There are no right or wrong answers. Everyone can adopt different practices as long as they are eco-friendly.
- The participants should make a pledge to change their daily habits, be more sustainable, and spread environmental awareness at least in their house and among their family members and friends.
- Invite the participants to reflect on their practices in friend meetings, camps, and headquarters and how they can improve them.

**Debriefing questions:**

- What action will you take to improve the practices in your home, friend meetings, camps, school, etc.?
- How can you raise awareness about sustainability and leading an eco-friendly life in your community?

15-20 minutes

7-10 / 11 - 14

- 1 set of green and red "voting" cards per person.

- Systems thinking
- Critical thinking
- Self Awareness


## Green or Red[3]

**Summary:**

The purpose of this activity is to get young people to consider various statements and develop their own thoughts on the topic of healthy lifestyle and sustainability, by identifying practices related to healthy and sustainable habits.

**Activity development:**

1. Explain to participants they will listen to different statements and show if they agree or disagree by showing two different types of cards: Agree = GREEN Do not agree = RED
2. Give each participant a set of cards, one green and one red.
3. Show them how they will use the cards by holding and raising the hand with the one expressing what they think about the statement they hear.
4. Practice with one simple example before starting with the chosen statements. E.g. I prefer dogs over cats.

3. Adapted from "Methodologies for the future" by WWF

5. Start the activity by reading or showing the statements. You can use the examples here and add others:
    a. Purchasing reusable material is just expensive and not necessary.
    b. It's possible to grow our own herbs. it's healthy and more environmentally friendly!
    c. It's impossible to change/reduce our meat consumption. We can't find an alternative protein!
    d. Buying local food is better for our health and for the environment.
    e. The concept of a sustainable lifestyle is the future!
6. Mark the votes on a visible place and once you finish with the list of statements have a discussion with the group on the votes and the topic.

**Relevant information for the facilitators:**

- A discussion can be taken after voting to know the perspective of each participant.
- The facilitator needs to make the participants understand to respect the other's perspective and be open to listening.
- The facilitator can introduce some of the 10 principles of dialogue to support the ongoing conversation.
- The discussions that are held both before and after "voting" are the most important educational aspects, so be sure to allow time for discussions either in pairs or in groups.
- Voting is a useful way of making lectures and panel debates more interactive and also for interrupting or drawing never-ending discussions and debates to a close.

# Walking with your food glasses on![4]

1 hour

11 years old and above

- Markers
- Flipcharts
- Colour cards with tape or sticky-tack to make

- Systems thinking
- Critical thinking
- Anticipate the Future
- Strategic


**Summary:**

To pay attention to objects in your neighbourhood associated with the consumption and production of food.

**Activity development:**

1. **Walk in the Neighbourhood:** Put your "food glasses on"! This means we are walking around finding things related to food, food production, consumption, storage, etc. Walk with your friends around the neighbourhood, what do you see that makes you think about food? Perhaps you will see:
    - Fields of corn or millet that can be used for making ugali
    - An empty tin lying in the ditch that someone has carelessly thrown away
    - A lorry transporting milk from a farm to the dairy
    - Someone carrying shopping bags on his or her way home from the supermarket
    - A cow that makes you think about a breakfast of bread, cheese, and butter
    - A lake or a fish
    - A ship with bananas
    - A cat hunting mice
    - Animal droppings
    - An orange tree
    - A leaf that has been nibbled by a caterpillar
2. **Report:** Tell each other what you have seen and experienced.
3. **Identify the food chains:** Try to create a food chain, its path from cradle to grave. Example: ORANGE: core-tree-orange fruits-factory-juice-juice packaging-grocery store-kitchen-waste

4. Adapted from "Methodologies for the future" by WWF

4. **Sustainable use:** Discuss with your friends and try to imagine the journey of that food and make a drawing of it, or use some cards to imagine it. Use cards to write the different steps, one on each card, and identify the chain of connection. Or draw diagrams with markers.

   Is the food chain sustainable? How can it be changed for the better?

   Now suggest a new chain of connection. Add more steps if you feel it's needed or remove some that are not sustainable. You can also use markers if you don't have cards or Post-it.

**Relevant information for the facilitators:**

- Sustainable Food Chain project (SUSTAIN - The Alliance for Better Food and Farming)

  When we talk about sustainable food chains we mean food, agriculture and practices that enhance the health and welfare of people and animals, improve the working and living environment, promote equity, and enrich society and culture.

'Sustainable food', according to some authors, refers to food which meets a number of criteria including;

- **Proximate** – originating from the closest practicable source or the minimization of energy use
- **Healthy** as part of a balanced diet and not containing harmful biological or chemical contaminants
- **Fairly or cooperatively traded** between producers, processors, retailers, and consumers
- **Non-exploiting** of employees in the food sector in terms of pay and conditions · Environmentally beneficial or benign in its production (e.g. organic)
- **Accessible** both in terms of geographic access and affordability · High animal welfare standards in both production and transport
- **Socially inclusive** of all people in society · Encouraging knowledge and understanding of food and food culture

10-15 minutes

7 - 14

- 1 set of waste items or 1 set of cards
- A wall, surface or 4 recipients or boxes.

- Systems thinking
- Collaboration
- Critical thinking


# Recycling and reducing

**Summary:**

This activity helps the participants to understand the difference between recycling and reducing waste, and how they can make their consumption more responsible and environmentally friendly.

**Activity development:**

1. The facilitator prepares a surface or 4 boxes in which four categories are indicated: aluminium, compost, paper or plastic.
2. The facilitator invites participants to divide themselves in four groups.
3. Give each group a paper bag with a a set of game cards[5] in it.
4. Instruct participants to take turns drawing a game card out of the bag and placing it onto the appropriate category on the mat.
5. When all the cards are sorted into the appropriate categories. Give points for the cards that are placed in the right category. The team with the most points wins!

5. Lakeshorelearnng.com

**Relevant information for the facilitators:**

- Does recycling leave a negative, neutral, or positive impact on nature? Recycling might seem positive, but it actually has a neutral effect on the environment.
- Then, what about reducing? Reusing is defined as using the material that you have already consumed again for another purpose. This is the right impact we need to create a better environment and preserve nature. If we begin by reducing the consumption of the non-environmentally friendly substance, most of the companies will stop producing these materials. We should begin with ourselves and set a good example for others. If not now, WHEN? If not us, WHO?
- So how can we reduce our consumption?
- There are small steps you can take, but they have a really huge impact on the planet. Here are some ideas:
  - Bring your own shopping bag
  - Stop buying bottled water, instead, have your bottle
  - Bring your own thermos to the coffee shop
  - Choose cardboard over plastic bags
  - Say no to straws
  - Don’t buy disposable razors
  - Rethink your food storage

2 weeks 4 hours each

11-14

- Pen and notebook

- Systems thinking
- Self Awareness
- Critical thinking
- Problem Solving


# My Waste monitoring

**Summary:**

This activity will give an idea of how much waste is produced and how much people add to the accumulation of waste. During the activity participants will develop ideas on how to reduce waste.

**Activity development:**

**Week 1/ Tracking your Waste -** Ask the participants to take record of their household waste by weighting the amount of it, and categorize the type of waste they are producing at home. Suggest them to check online the waste statistics of their or city.

**Week 2/ Compare and discover -** Ask the participants to compare their statistics and to discuss the reasons for higher or lower waste production. Also let them discuss other topics related to waste management like:

- Where your waste is going.
- How organic waste is managed, is it collected or used for compost?
- How are the different types of waste classified?
- How many types of waste are separated in your municipality?

**Week 3/ Visit a local waste management facility -** Pre-arranged a visit to a local waste management facility in your area.
It's a place to learn where the waste is going and ask more questions on how to handle it.

**Debriefing questions & Input:**

- What did you see and experience at the local waste management facility.
- Do you think all the waste there needs to be produced in the first place?
- Are there alternatives to avoiding so much waste?
- Where can you start to reduce some of your own waste?

# What is your stand on...[6]

30-40 mins

15 and above

- Printed or cut images related to environmental issues
- Duct tape, a rope or chalk to mark the line on the floor.

- Systems thinking
- Self Awareness
- Critical thinking


**Summary:**

This activity looks to explore people's attitudes, values and perspectives on sustainability and nature. Also to enable young people to respectfully challenge different positions and encourage them to positively communicate their opinions.

**Activity development:**

1. Make a long line on the floor/ground by duct tape or a rope. Indicate along the line the numbers 1 to 6.
2. Give one A4 paper to each participant and different coloured markers where they can write their opinions during the activity.
3. The facilitator explains that a series of statements or images will be presented to them. Each time they need to decide how strongly they agree or disagree/ think it is sustainable or not, by standing on number 1 (agree) or number 6 (disagree), they can also use the numbers in between. Once on the line they will observe where others are standing. They can share ideas with the ones standing in the same position or next to them. The facilitator will ask some of them to share their views with the entire group.
4. The facilitator starts reading the statements previously prepared. Some examples of statements to agree or disagree/sustainable or not sustainable:
    a. Nature precedes humans
    b. Everybody should cut down on their use of energy!
    c. Everyone is accountable for environmental conservation
    d. We must not cut down treesNative commonsense helped conserve our environment better than those things we learn at school today
    e. People wash their hands after visiting the bathroom and before eating.
    f. Cutting down trees and cultivating in wetlands
    g. Burning bushes
    h. Buying products or recycle, reuse and repair

6. Adapted from "Methodologies for the future" by WWF

5. Variant of the activity - use pictures from newspapers. Ask participants to indicate on the line how much they agree/disagree or think it is sustainable or not. Then ask them how they think a non-sustainable action can be turned into a sustainable one.

**Relevant information for the facilitators**

1. Before starting the exercise explain that everyone can express their opinions about the different topics in a respectful way. In the same way, no one will be judged by their views on the topics discussed. You can use the 10 principles of Dialogue for better facilitation.
2. After hearing the arguments advanced by others some people may want to change groups.
3. As a follow-up at a later date you can ask the same questions again and see whether the views originally held have changed and if so in what way

20-30 min

15 and above

- No Material Required

- Self Awareness
- Critical thinking


## Four Corners[7]

**Summary:**

The purpose of this activity is to help participants to share opinions and consider the opinions, perspectives and values of others, related to sustainable production.

**Activity development:**

1. The facilitator prepares an area or space where 4 corners can easily be marked a meeting room or an open area with a marked square on the floor.
2. The facilitator explains participants will answer questions by moving and choosing 1 of 4 possible answers. Each answer option corresponds to one of the 4 corners of the room or the space. Participants can show their choice of answer by moving to one of the four corners.
3. Participants come to the center of the space, ready to hear the questions and show their preferred position.
4. The instructor reads out the question and indicates which corner of the room has been allocated to which alternative. Each person silently moves to the corner that reflects their preference.
5. Once all the participants are in their prefered corner the facilitator opens the floor for some of them to share why they choose it. He offers the opportunity to different participants in different corners. The participants are allowed to change corners if they change their minds.

7. Adapted from "Methodologies for the future" by WWF

**Relevant information for the facilitators**

- Encourage participants to think independently and make their own
- Try to do your own research before the activity to strengthen your knowledge in the questions you will ask.
- The following is three examples related to the environment but as a facilitator, you can bring more questions for the participants to discuss:
  - **What is most important for you when you buy a new piece of clothes?** The price / How fashionable it is / How it was produced / None of the others
  - **Who is responsible for making sure of the sustainability of products?** Ordinary people / The industrialized countries / The government / None of the others

1.5 hours

15 and above

- Table for weekly food
- Food pyramid

- Self Awareness
- Critical thinking


# Food Pyramid

**Summary:**

This activity is about understanding the impact your choice of daily food has on the environment, and how a balanced diet is good for your health as well as the balance of the planet. Participants will reflect on their diet and the recommended food pyramid for nutrition.

**Activity development:**

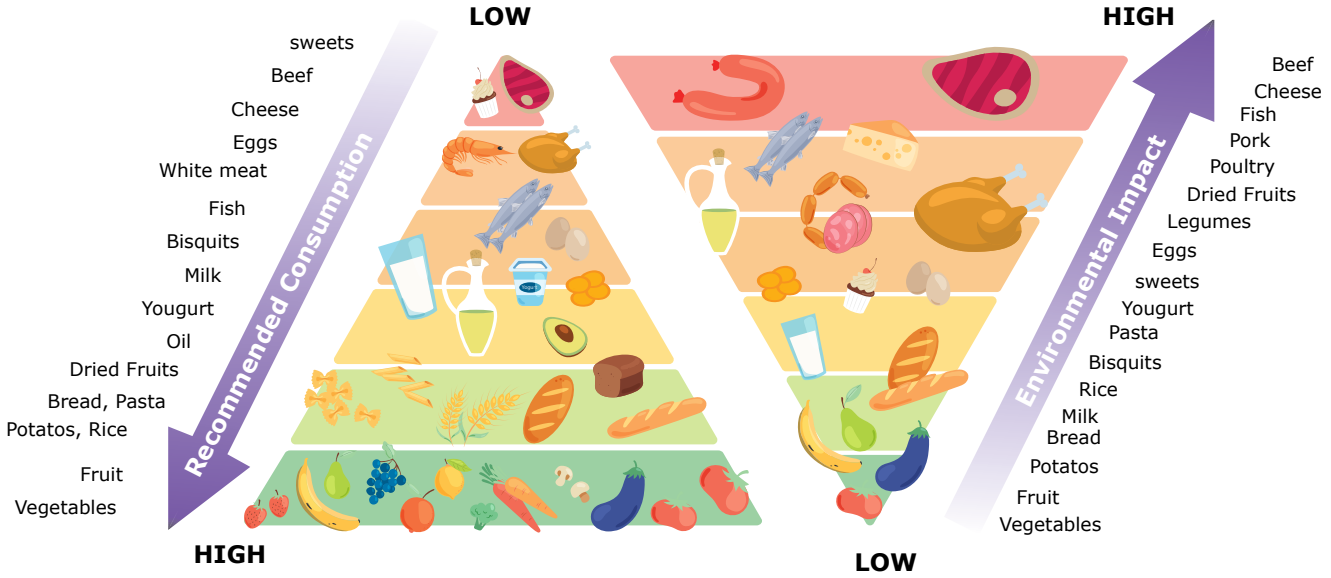
1. Ask participants to sit together as a group and exchange what your favourite foods and drinks are. How often are you having each? Introduce the table for weekly food and ask them to mark the frequency in it. Once finished, ask them to add all marks for each food category and the end of the table.
2. Fill out the steps of the empty pyramid according to the succession of the food - the largest number is the foundation of the pyramid, the smallest is the top. In case you did not have all food types during the week, leave out as many pyramid steps as food types you did not have at the bottom of the pyramid.
3. Introduce them to the Standard Food Pyramid[8]. Ask participants to compare with the one they have. ASk the following questions: Do you see any differences? Are you eating too much or too little of a certain food type?
4. Compare your food pyramid to the environmental impact pyramid[9]. Ask the following questions. Can you spot any food you are eating with a high environmental impact? If yes, are you eating too much of this food? Could you eat something else instead of what is better for your health and the environment?

Ask the group to exchange what they found out.

8. Barilla Centre for Food and Nutrition
9. Barilla Centre for Food and Nutrition

**Relevant information for the facilitators**

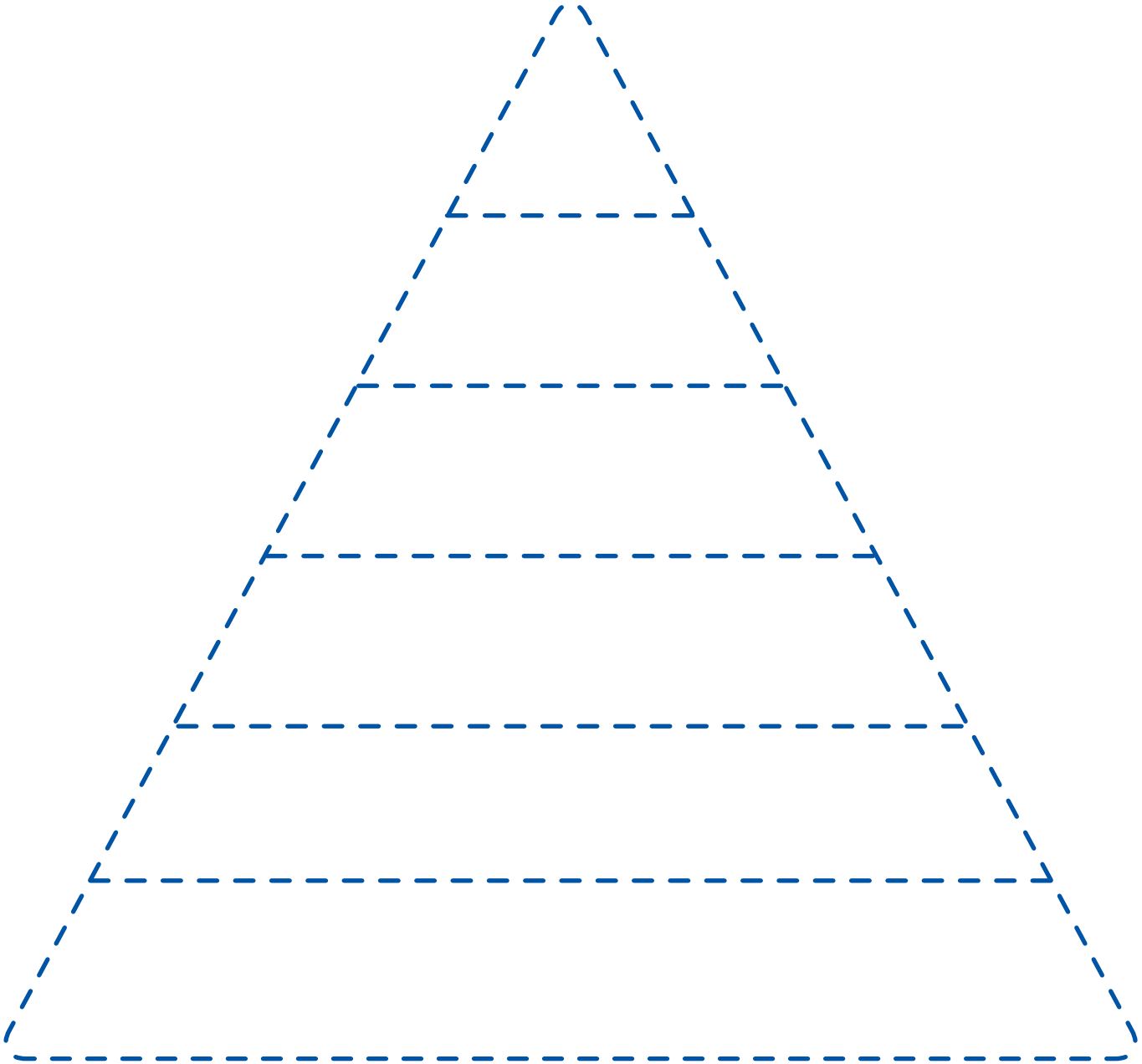
1. The pyramid graphic provided is focused on a Mediterranean diet as an example. Please search for your country's/region's environmental pyramid through different platforms.
2. The graphic provided is mainly for people above 15 years or more. You can look for other sources to find a pyramid matching the place where you live.




designed by www.freepik.com

| Food type | Day 1 | | | Day 2 | | | Day 3 | | | Day 4 | | | Day 5 | | | Day 6 | | | Day 7 | | | Sum |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Sweets, Beef | B | L | D | B | L | D | B | L | D | B | L | D | B | L | D | B | L | D | B | L | D | |
| | | | | | | | | | | | | | | | | | | | | | | |
| Cheese, Eggs, White Meat, Fish, Bisquits | B | L | D | B | L | D | B | L | D | B | L | D | B | L | D | B | L | D | B | L | D | |
| | | | | | | | | | | | | | | | | | | | | | | |
| Milk, Yoghurt | B | L | D | B | L | D | B | L | D | B | L | D | B | L | D | B | L | D | B | L | D | |
| | | | | | | | | | | | | | | | | | | | | | | |
| Oil, Dried Fruit | B | L | D | B | L | D | B | L | D | B | L | D | B | L | D | B | L | D | B | L | D | |
| | | | | | | | | | | | | | | | | | | | | | | |
| Bread, Pasta, Potatos, Rice | B | L | D | B | L | D | B | L | D | B | L | D | B | L | D | B | L | D | B | L | D | |
| | | | | | | | | | | | | | | | | | | | | | | |
| Fruit, Vegetables | B | L | D | B | L | D | B | L | D | B | L | D | B | L | D | B | L | D | B | L | D | |
| | | | | | | | | | | | | | | | | | | | | | | |

**B = Breakfast, L= Lunch, D= Dinner**



# Activities

## Nature and Biodiversity

*"Surely we have the responsibility to leave for future generations a planet that is healthy and habitable by all species"*

***David Attenborough***

| Connecting with Nature and protecting it towards sustainability | | |
|---|---|---|
| **7 to 10** | **11 to 14** | **15 and above** |
| **Activity:** What's at risk? | **Activity:** Web of Life | **Activity:** S.E.E the links |
| **Activity:** Discovering Nature with Seek App by INaturalist | **Activity:** Discovering Nature with INaturalist | |
| **Activity:** BioBlitz - Natural area exploration | **Activity:** One Planet | |
| **Activity:** Minimum impact on nature | **Activity:** Learning about tree planting | **Activity**: Storytelling - Pixar Pitch |

Time

Age Range

Rescources and Material

Key competencies

*Week 1- research, Week 2 - 1 hour*

7 - 14

- Large paper clips (a variety of colours is fun), 2 for each participant
- Invasive Species cards with names (Red)
- Native Species cards (Green)
- Species at Risk sheet with list of your local species that are: species of concern, threatened or endangered

- Systems thinking
- Critical thinking


## What is at risk?[10]

**Summary:**

This activity is based on the Rock-Paper-Scissors (RPS) game and will allow young people to experience the effects of invasive species, both on an ecosystem and the native species within it. The game is adaptable and adults may desire to include certain Species at Risk from their own locale that young people can represent.

**Activity development:**

1. All participants begin the game as Native Species at Risk. Participants have a card and receive 2 paper clips representing their life and the life of their offspring (their species' future).
2. Before the game commences have participants look around them and visualize the diversity of Native Species.
3. Participants should all be familiar with Rock-Paper-Scissors (RPS), but review the rules to this activity (Rock beats Scissors, Scissors beat Paper, Paper beats Rock) and instruct participants they will use this throughout the activity.
4. At a signal from the facilitator, participants find an opponent and begin playing RPS. Winners collect one paper clip from the loser.
5. When a player loses all of their paper clips, they go to the facilitator to ask for a new card. The facilitator hands them a new card with an invasive species (red card) on it. Invasive Species represent threats to their own local ecosystems. Participants place this card over their Native Species card.

10. Lower Thames Valley Conservation Authority

6. Invasive Species players have advantage. The game continues with the following rules:
    a. Invasive species win over a Native Species player; they collect two paper clips from native species.
    b. Invasive species lose, they can take one paper clip from the Native Species player.
    c. Invasive vs. Invasive – winners only receive (one) paper clip.
7. Should an Invasive Species lose all of their paper clips, they keep playing but can only target Native Species players until they win a paperclip.
8. The game ends when all of the players become Invasive Species (the facilitator must keep track of the number of participants and number of Invasive Species cards they've handed out). Players can tally their paper clips to find out which Invasive Species had the most impact on the ecosystem.
9. Have additional rounds to allow participants to experience how quickly ecosystems can be impacted by Invasive Species if not helped by us.

**Some debriefing questions for participants:**

1. How do you think Invasive Species affect the Native ecosystem?
2. How do you think these Invasive Species got here?
3. Who would suffer if Invasive Species were allowed to go unchecked?
4. What can we do to the spread of non-native species?
5. How can we stop the spread and introduction of non-native species of plants and other living organisms?

**Week 3 - Bring additional Research**

Participants can bring research as to how to avoid spreading the Invasive Specie they represented in the game. Group research and projects can result with presentations of findings encouraged.

**Relevant information for facilitators:**

- Invasive Species are non-native and don't belong in the ecosystems they've been brought to. Humans are responsible for their introduction

- Invasive Species have the advantage that nothing in their new surroundings wants to eat or use them, and they are free to reproduce and multiply rapidly.
- Some Invasive Species can out-compete existing native organisms for resources and cause these natives to disappear.
- Some Invasive Species have defences like chemicals or spines that native carnivores and herbivores haven't evolved to overcome. This leaves the Invasive without natural enemies to control their numbers.
- Invasive species have a huge effect on native biodiversity.

participants should be able to empathize and internalize the challenges facing Native Species, and recognize the threat that Invasive Species pose to our native ecosystems. Results of graphing data can be used to show participants how rapidly this Invasive takeover can occur and should stimulate questions as to why this happens and what can be done about it.

The Human Connection to ecosystems and the environment. If one ecosystem suffers – we suffer.

participants should be made aware that Invasive Species are not all that our Native Species have to deal with. Habitat loss is another major concern worldwide. Climate change and greenhouse gases along with pollution are further concerns. All of these challenges are compounded by lack of human concern and human non-intervention.

**Variation:** Participants or the facilitator can record the number of Native and Invasive Species at the start and every couple of minutes after to create a chart from which graphs can be derived.

| Time (minutes) | # of Native Species | # of Invasive Species |
|---|---|---|
| Start | | |
| 2 | | |
| 4 | | |
| 6 | | |
| 8 | | |
| 10 | | |

*20 - 30 minutes*

7 - 14

- Seek by iNaturalist
- Real-time Computer Vision predictions in Seek by iNaturalist version 2.0
- Our Planet Lab toolkit
- mobile device for the app

- Systems thinking
- Critical thinking


# Discovering Nature with Seek App by INaturalist[11]

**Summary:**

Participants will be invited to use the app during other outdoor activities at the event/meeting to discover the natural environment around them. By the end of the activity, the participants should understand the importance of biodiversity and how young people can take action to preserve it.

**Activity development:**

1. The facilitator will introduce young people to Seek app and biodiversity, with the help of a video tutorial, which will also help participants to use their own phone devices to access the app. This will be an introduction that will be followed by activities where they can use this app, e.g. hikes or other outdoor activities.
2. You can use some of the activities and guidance from Our Planet Lab toolkit
3. Participants should learn about at least three wildlife or plant species during the activity and on completing it, they will discuss what they have learned about these species.

11. Seek by iNaturalist

**Relevant information for facilitators:**

**About the Seek by iNaturalist app**

The Seek app, which is part of the iNaturalist platform (a joint initiative between the California Academy of Sciences and the National Geographic Society), comprises a suite of educational tools presented by the WWF and Netflix to engage young people in the global conversation on saving our planet that was sparked by the hit series, Our Planet.

A 'Citizen Science for Our Planet' toolkit is available for schools, colleges, universities, and youth groups. Users can use the updated app 'Seek by iNaturalist'' or the offline recording tools provided to monitor local biodiversity and initiate a biodiversity action plan to improve conditions for wildlife in local communities.

**Debriefing questions**

- Do you think this app can be useful to develop activities in your local group?
- In which kind of activities can you use this app?
- How can this app help you to protect the biodiversity of the planet?

*2 hours on week 1, 4 hours on week 2, work in groups in week 3*

7 - 14

- Week 1 - video or set of pictures, computer or maps of the selected area
- Week 2: Per group, a length of rope or hula hoop. a hand lens, a clipboard with copies of the Species Identification, Cards worksheet, a digital camera (when available).
- Week 3 - Data, photos and other samples collected from the expedition.

- Systems thinking
- Collaboration


# BioBlitz - Natural area exploration[13]

**Summary:**

Participants will collaborate in organizing and executing a BioBlitz, finding and identifying as many species as possible in a specific area over a short period of time. At a BioBlitz, scientists, families, students, teachers, and other community members work together to get a snapshot of an area's biodiversity.

**Activity development:**

**Week 1 - Prepare for the Bioblitz**

1. Facilitator explains the group will participate in a Bioblitz. With participants they choose a natural area to explore and learn about it. It could be a natural reserve, national park, or even a city park. Discuss areas nearby where they might look for biodiversity in their local environment
2. Facilitator Introduce the concepts of biodiversity and a BioBlitz. Have young people do a 'virtual-video-bioblitz' as they watch a clip from Alec in WILDerland and the Boy Scouts of America, Troop 20 from Tulsa or show them a selection of pictures. Ask them to raise their hands when they see a new species unknown for them.
3. Talk about what they saw in the video or pictures and Ask: Why would taking an inventory of all of the species in a natural area be useful?
4. Invite them to use the Map Maker Interactive or Google Maps to have young people explore the study area. Ask participants to find and create a map of the selected area where the group will conduct the BioBlitz. Ask: What physical features can you identify? In what areas do you expect to find a variety of species? What human areas might affect the biodiversity you will inventory as part of the BioBlitz?

12. BioBlitz by National Geographic

5. Structure the field experience in advance. Discuss with students how they can work efficiently with the time they'll have to conduct their BioBlitz. Participants should be in small groups. Mark maps with where students will likely be.Have each participant bring a notebook and pencil.
6. Where have you seen a variety of plants? Where have you seen a variety of animals? What habitats and what conditions enable animals and plants to survive?

**Week 2 - Conduct the BioBlitz**

1. Once on the site selected for the expedition, explain that they will have time first for silent observation and then for team observation, during which they can communicate with one another.
2. First, for about five minutes, have participants sit silently and observe their surroundings. In their notebooks, ask them to draw or describe in words any living things they see, hear, or smell. If they notice any animals, have them record notes on their datasheets or take a photograph if possible.
3. Before or after their silent observation, have young people choose an area to study. Indicate them to use the hula hoop or rope to mark it their study area.
4. As they conduct the BioBlitz, participants mark their findings on a map of the study area and also put as much information as possible about species found on the Species Identification Cards worksheet.
5. Identify species, when participants are finished with the inventory, move back into the unit meeting place.
6. Before going home, discuss any challenges encountered, such as sampling very small organisms or flying or crawling organisms, or physical factors such as rain and wind—and discuss possible effects on data.

**Week 3 - Research**

1. Have young people consult expert resources, such as field guides, to identify organisms observed in the neighbourhood BioBlitz and add more information to their species identification cards—creating an inventory representing the diversity of the area studied.
2. Compile the results on a map and share data:
    a. How many species were found?
    b. What species were found where?
    c. In what types of habitats were species found?
    d. What species were found near one another?
    e. What abiotic factors may have had an effect on species found?
    f. How could the group's research methods have impacted the species found?
    g. What would you do differently if you were to conduct another neighbourhood BioBlitz?
3. Ask participants to create a map showing the distribution of various species within the study area. Have them cut out and attach the species identification cards to the map to visually display the concept of biodiversity for other friends and other people.
4. Discuss the findings. Discuss biodiversity within and among the areas participants inventoried.

**Relevant information for facilitators:**

- **What is a Bioblitz:** Is an event where teams of citizen scientists help to identify as many species as possible in a natural area. What is Bioblitz? iNaturalist/Seek app (preferable): you can get more guidance from Discovering Nature with INaturalist/Seek activity guide. Explain that scientists and others who are responsible for protecting natural environments need to understand the biodiversity there and having an inventory is a way to do it.
- Plants typically need soil, water, and sunlight; wildlife needs food, water, shelter, and space.
- Smartphone technologies and apps such as iNaturalist make collecting photographs and biological information about living things easy as part of a BioBlitz. High-quality data uploaded to iNaturalist become part of the Global Biodiversity Information Facility, an open-source database used by scientists and policymakers around the world.
- You will need to decide in advance how much they can move rocks or soil to look for species. A good general rule is that they can lift up a rock but will need to replace it where they found it. Ask participants to avoid taking any species from the study site, and to be sure to leave the site as they found it. Young people may determine that doing the inventory in the early morning, or during a warmer season, might bring different results.

*40 minutes*

7 -11

- Set of 'A World without Rainforest'

- Systems thinking
- Anticipate the Future


# Minimum Impact on Nature[14]

**Summary:**

To explore what will happen locally and globally if we continue to cut down rainforest at the same rate as we do now.

**Activity development:**

1. Facilitator explains that, while much is being done to protect the rainforest, it is still under threat of destruction. Every minute an area the equivalent to 25 football pitches is being destroyed. This activity shows what will happen if we continue to destroy the rainforest at this rate.
2. Organize participants into groups of 4 or 5 and give them a set of 'A World without Rainforest' cards. They must sort the cards into 2 categories: 'How forest clearance affects the people, plants, and animals that live in the rainforest' and 'How forest clearance affects us all'. They should have 7 cards in the 'How forest clearance affects us all' pile.
3. Now they must rank the 7 cards according to which issues they think are most important and which issues are least important. They can rank the cards with the 2 most important at the top and the 2 least important at the bottom.
4. Groups can share their most important and least important issues and discuss their choices.

13. Scouts Scotland

5. Use the information gathered from the cards to talk about the impacts on forests, people, biodiversity and climate change both locally and globally.
6. Encourage them to explore the ways they are connected to the issue – for example by using food and cosmetics containing palm oil, leather goods, and timber products.

**Resources and references:**

- https://www.scouts.scot/media/1606/goal-15-life-on-land.pdf
- https://www.scouts.scot/media/1595/17-activities-for-17-goals-print-friendly-scout-cards.pdf

*45 minutes*

7 -10, 11-14

- A ball of string
- Cards that represent plants and animals

- Systems thinking
- Anticipate the Future


# Web of life[15]

**Summary:**

To explore what will happen locally and globally if we continue to cut down rainforest at the same rate as we do now.

**Activity development:**

1. **Divide the participants into groups**. Maximum group size is 15. The ideal size would be 8 to 12. Each group should sit in a circle with an adult.
2. **Assign each participant an identity**, a plant or animal name. Be sure they know a little about the plant or animal. To play the game, they will need to know how the plants and animals are connected to food chains.
3. **Start the game** - Show the ball of string and explain that the string will let us see the connections between plants and animals. Explain that you will represent the sun. You will start because all energy comes from the sun. Model the game by saying, "I am the sun. I am passing the ball of string to the apple tree because I give the tree energy to grow." You hold onto the string and pass the ball to the tree.
4. **Continue the play**- The 'tree' now chooses a plant or animal in the circle that is connected to it in some way. The 'tree' holds onto the string and passes the ball to that plant or animal. For example, the tree might pass the ball to the deer that eats tree leaves, the woodpecker that eats the bugs in its bark, or the owl that roosts in its branches. Keep the string tight, but not too tight! Play continues until everyone is holding onto the string. Some plants or animals might have more connections, but everyone should be a part of the web.

14. Scouts Scotland

5. **Explore the connections**- Reflect with the young people. Which plant or animal has the most connections? Who depends on whom? What would happen if the string breaks? What would happen if the mushroom (or some other plant or animal) disappeared? Mushrooms aren't that important, are they? Try the game again with the mushroom gently tugging on the web. As each plant or animal in the circle feels the tug, he/she should call out the plant or animal he/she represents.
6. **Finish the game**- Ask some participants about the game. How did they feel about it? Can they provide some examples of other connections from their backyard?

*20 – 30 minutes*

13 years old and above

- Seek by iNaturalist
- Our Planet Lab toolkit
- Video Tutorials
- mobile device for the app

- Systems thinking
- Critical thinking


# Discovering Nature with INaturalist - Next Level[15]

**Summary:**

The facilitator will introduce young people to INaturalist app and biodiversity, with the help of video tutorials, which will also help participants to use their own devices to access the app. This will be an introduction that will be followed by activities where they can use this app, e.g. hikes or other outdoor activities.

**Activity development:**

1. You can use some of the activities and guidance from Our Planet Lab toolkit
2. At the end of the activity, participants will be invited to use the app during other outdoor activities at the event/meeting to discover the natural environment around them.
3. You can continue your exploration journey with INaturalist by managing a project. You can visit this website to get more resources.

15. Seek by iNaturalist

**Relevant information for facilitators:**

- Get to know more about iNaturalist from here
- Participants should learn about at least three wildlife or plant species during the activity and on completing it, they will discuss what they have learned about these species.
- By the end of the activity, the participants should understand the importance of biodiversity and how young people' can take action to preserve it.
- A 'Citizen Science for Our Planet' toolkit is available for schools, colleges, universities, and youth groups.

**Debriefing questions**

- Do you think this app can be useful to develop activities in your local group?
- In which kind of activities can you use this app?
- How can this app help you to protect the biodiversity of the planet?

*Open*

11 and above

- Access to internet
- Screen/laptop/ mobile

- Systems thinking
- Reflect on norms and values


# One Planet[16]

**Summary:**

The objective of this activity is to inspire the participants to understand our planet - and the challenges it faces and how they can save it and create a future where nature and people thrive.

**Activity development:**

1. The facilitator shows One Planet episodes to the participants. They can watch the intro video and other ones based on their area of interest.
2. The group goes through One Planet educational resources including various activities they can do.
3. Additional: They can connect live to experts and classrooms worldwide via Skype in the Classroom through Our Planet live on Skype in the classroom.
4. It's time to go for the extra milestone! Discover what you can do for the planet including pledging for Voice for the Planet and learning more through an interactive journey across a virtual astonishing planet!

**Relevant information for facilitator:**

Our Planet is a ground breaking, four-year collaboration between Netflix, Silverback Films, and WWF. It explores the rich natural wonders, iconic species, and wildlife spectacles that still remain, and reveals the key issues that urgently threaten their existence. Today, we have become the greatest threat to the health of our planet.

Additional resource: Our Planet Classroom resources - UK

16. Netflix, Silverback Films, and WWF

*4 hours*

11 - 14

No Material needed

- Systems thinking
- Critical thinking


# Learning about Tree Planting

**Summary:**

To Understand the process of reforestation/revegetation: Know where trees and plants come from for reforestation and revegetation through a visit in a tree nursery/ greenhouse/ gardener.

**Activity development:**

1. **Prepare -** Reflect in the group on the forest/vegetation in your surroundings/area. Where do you see forests? Is there a lot of vegetation/ green areas? Perhaps you will find:
    a. Vegetation is cut back at one place
    b. Vegetation is regrown at another place
    c. Trees are cut and transported away
    d. Trees are not replanted where they were cut
    e. Trees are replanted where they were cut
    f. Trees are processed in a sawmill
    g. Different wood products in your daily life coming from trees.
    h. Someone you know is working in forestry/carpentry
    i. There are several reasons for cutting down trees: they are simply in the way, used for building material, used for fires.
2. **Visit a greenhouse/tree nursery** - The leader pre-arranges a visit to a tree nursery/greenhouse/gardener in your area. There participants learn about tree growing and tree planting and you can ask your questions.
3. **Reflect** - Discuss what you saw/experienced at the tree nursery/ greenhouse. Try to put in context the timescale a tree needs to re-grow. When do you think it is necessary to cut down trees? Are there alternative ways to avoid cutting down trees? What would you need to do to plant some trees on your own?

*20 – 30 minutes*

14 and above

- A set of three dices each in different colours and their meaning

- Collaboration


## S.E.E the links[17]

**Summary:**

To explore the linkages between Society, Environment, and Economy (= S.E.E.) by looking at ecosystem function, components, and the possible impacts on an ecosystem.

**Activity development:**

1. Let the participants sit in small groups. One of the participants rolls the set of dice.
2. Three numbers are chosen one from each dice (red, green, and blue). Use the numbers to pick a topic from each category to create a story.
3. The group is given a few minutes to discuss, and then compose a short story. Terms may be used in any order. The group writes down the story. When one story is finished, roll the dice again to create a new story.
4. When all groups have completed at least one story, ask a few groups to share and then discuss the stories.
5. Variation: You can go further by adding an additional set of dice; personal dice. These dice will show emotions: joy, sadness, happiness, disappointment, satisfaction, and excitement.

Example: Red dice 1 for Regulate, Water cycle, green dice 3 for Soil, blue dice 2 for Energy generation

And the story: A town on the banks of a river in need of more electricity due to the rising population and industry in the area. A nearby river is large enough to provide all the energy needed, once it is dammed into a reservoir. The dammed river breaks the natural cycle of different discharge through the river and reduces the average water in the River. Fish can no longer migrate up the river for procreation.

17. Adapted from "Methodologies for the future" by WWF

All the nutrient-rich sediment which previously was transported through the river and deposited on the river banks in high water season now is trapped behind the dam. The natural regulation of the water cycle is broken through the dam, and the downstream ecosystem is changed due to missing nutrient-rich soil.

| **Red Dice - Ecosystem Function** | **Green Dice - Ecosystem component** | **Blue Dice - Impact/ Use** |
|---|---|---|
| 1. Regulate the water cycle | 1. Water | 1. Intensive Food production |
| 2. Shelter (for animals) | 2. Air | 2. Energy generation |
| 3. Food (for humans) | 3. Soil | 3. Drinking water |
| 4. Regulate climate | 4. Nutrients | 4. Mining |
| 5. Filter water and air | 5. Wildlife | 5. Intense tourism |
| 6. Biodiversity for resilience | 6. Vegetation | 6. Urbanization |

*1.5 hours*

15 and above

- paper and pen

- Collaboration


## Storytelling – the Pixar pitch[18]

**Summary:**

Advocacy, offers young people the opportunity to express their views and their proposals for creating a better world. Youth advocacy encompasses the use of education, communication, leadership skills, and evidence to make a compelling case for change. Storytelling is a powerful tool to make your case in an attractive, creative, and compelling way. Let's advocate for biodiversity using the Pixar pitch

**Activity development:**

1. Participants decide on an issue you want to advocate for: biodiversity loss, a particular threat to a species, wildfires destroying the habitat for example.
2. Introduce the Pixar story model.
3. Now, let's bring this to the Wildfire example where you are seeking to eliminate human-caused fires in the forest.
4. Give participants time to create their pitches by:
    a. Fill in the blanks using Pixar's story
    b. Once completed, allow them to rewrite and expand your story.
    c. Last, if you have time, rewrite and expand it again.
5. ASl some of them to share their stories with you.

18. The Pixar - To Sell Is Human. By Daniel Pink

**Relevant information for facilitators:**

- Reference for Facilitators
- Pixar film uses the same narrative structure with six sequential sentences:
    1. Once upon a time, there was …
    2. Every day …
    3. One day …
    4. Because of that …
    5. Because of that …
    6. Until finally …
- This six-sentence template is both appealing and supple. For it allows pitchers to take advantage of the well-documented persuasive force of stories but within a framework that forces conciseness and discipline.

| Finding Nemo | Biodiversity issues |
|---|---|
| 1. Once upon a time, there was … a widowed fish, named Marlin, who was extremely protective of his only son, Nemo. | 1. Once upon a time, there was … a beautiful forest that provided food, clean air, and water for all the plants and animals that lived in it. |
| 2. Every day … Marlin warned Nemo of the ocean's dangers and implored him not to swim far away. | 2. Every day … Humans used the resources the forest provided and were able to feed themselves and their families, and they thrived happily for many years. |
| 3. One day … in an act of defiance, Nemo ignores his father's warnings and swims into the open water. | 3. One day … things changed: humans now used fire to burn the forest to grow their food and then the climate changed, the hot season became hotter and the rainy season was not that rainy anymore. |
| 4. Because of that … he is captured by a diver and ends up in the fish tank of a dentist in Sydney. | 4. Because of that … wildfires increased and destroyed many hectares of the forest. Plants and animals now don't have a place to live and humans are affected as well. |
| 5. Because of that … Marlin sets off on a journey to recover Nemo, enlisting the help of other sea creatures along the way. | 5. Because of that … humans changed their ways, now they use sensible agricultural practices that don't use fire and they educated themselves to use the forest resources more rationally |
| 6. Until finally … Marlin and Nemo find each other, reunite and learn that love depends on trust. | 6. Until finally … the forest grew back! And now the plants and animals (including humans) will have food, clean air, and water forever. |

This six-sentence template is both appealing and supple. For it allows pitchers to take advantage of the well-documented persuasive force of stories but within a framework that forces conciseness and discipline.

## Now you have an advocacy pitch, Pixar style

# 3 Plan your Next Move

Once you are informed about the plastic issue and how it affects your community and ecosystems, then it's a good time to plan your community service project to Cooperate and Act. You can use our Community service project guidelines to have a better understanding of how to plan, execute, and evaluate your project.

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**What are the needs or issues affecting the community inspiring you to take action?**

**Project planning, monitoring and evaluation**

**What is the new reality you and community members want to see?**

**Breaking down the action plan**

| What steps do I need to take to solve the identified needs or issues? | What are the expected results of each of these steps? | What will be the benefits for the community from these results? |
|---|---|---|
| | | |
| | | |
| | | |
| | | |

**During the project**

| Monitor your plans | Evaluate the results and experience |
|---|---|
| Are we on track? • Have we completed all our planned activities? • Have our activities had the results (outputs) we expected? • Have we faced any obstacles? How do we overcome them? | Have we addressed the need or issue? • Have our activities produced the expected benefits (outcomes) for the community? • Should we have done something differently? - What have we learned from this project? |

**One example**

| | | |
|---|---|---|
| Identify the sources of waste in the community and how it is disposed of. | Map of waste hot-spots and waste management centres or areas by type in the community? | Citizens learn where and how can they correctly dispose and manage the household waste to avoid pollution. |

# NOTES

SCOUTS®
Creating a Better World


SCOUTING DEVELOPMENT
June 2020

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earthtribe®

IMPLEMENTATION MANUAL

# earthtribe®

Environmental education for a global community to protect the planet

SCOUTS®
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This document is primarily for National Scout Organizations (NSOs), National Scout Associations (NSAs) and educational institutions in general.

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earthtribe®

Environmental education for a global community to protect the planet

IMPLEMENTATION MANUAL

earthtribe®

# CONTENT

# Background

World Scouting's collaboration with the World Wildlife Fund for Nature (WWF) can be traced back to the 1970s when the first World Scout Conservation Badge was created to recognise Scouting's work towards protecting the environment during a rising trend in climate change and global warming.

In 2008, the World Scout Environment Programme (WSEP) was conceptualised to provide an updated framework for environmental education. By 2016, the World Scout Committee agreed to the consolidation of the World Programmes: Messengers of Peace (MoP), World Scout Environment Programme (WSEP), and the Scouts of the World Award (SWA) under the Better World Framework (BWF) to provide an integrated structure and support system to develop capacities, streamline resources and align shared goals.

In 2018, the World Scout Bureau (WSB) started the review of the WSEP to address identified gaps in the programme. In the same year, with the creation of Scouts for SDGs, all initiatives under the BWF started the process to align their educational purpose with the 17 SDGs and Education for Sustainable Development (ESD).

To establish a vision for the future of education in Scouting, the organization identified different areas of work focusing on the development of learning opportunities for young people within the Youth Programme aimed at addressing youth involvement in community issues, as well as their personal growth. These areas reflect the main challenges and trends that young people are facing today and in the near future in their societies, as stated in the UN World Youth Report.

The Earth Tribe Initiative and its Challenges specifically seeks to address environmental and sustainability issues such as climate change, promoting the development of sustainable habits towards an eco-friendly and healthy lifestyle, and connecting with nature to protect it sustainably.

The Better World Framework organises and aligns its Initiatives and Challenges with the Education for Sustainable Development of UNESCO, including the eight key competencies for sustainability and the Essential Characteristics of Scouting as a framework for non-formal education .

This Earth Tribe Implementation Manual is designed for programme developers, national team members, adult leaders and educators in general who are keen to learn how to implement the different Earth Tribe Initiatives and Challenges as part of environmental education.

The Earth Tribe supports the development of competencies in young people as they strive in achieving their full physical, intellectual, emotional, social, and spiritual potential as individuals, as responsible citizens, and as members of their local, national, and international communities .

The Earth Tribe is an initiative for individual and community development centred around the educational area of environment and sustainability. This educational area is focused around four learning paths:

- **Better Choices**
  - Understand and reflect on the impact of human consumption habits in our environment.
  - Promote the co-creation of solutions to modify consumption patterns to contribute to a more sustainable lifestyle.
- **Nature and Biodiversity**
  - Understand and reflect on biodiversity and the way ecosystems work, and how humans play a role in the relation human vs nature
- **Clean Energy**
  - Reflect on the personal impact surrounding the demand and use of different energy sources.
  - Explore new possibilities and practices on how to sustainably satisfy the need for energy.
- **Healthy Planet**
  - Understand how pollution created in one place can impact ecosystems and people elsewhere.
  - Learn how to take responsibility and mitigate pollution in immediate ecosystems within communities.

Ensuring consistency with the alignment of Sustainable Development Goals (SDGs) and incorporating the end-user perspective (NSOs), WSB carried out consultations at a global and NSO level to identify content needs, a symbolic framework approach, connectivity with partners and impact.

1. Conference Resolution 2008-22 Environmental Education in Scouting
2. UN World Youth Report
3. The Essential Characteristics of Scouting
4. The purpose of the Scout Movement. Constitution of the World Organization of the Scout Movement (2017)

# Earth Tribe

## Why a tribe for the earth?

A tribe is the earliest form of organisation of humans in all cultural or geographical backgrounds. Members of a tribe support each other to discover their individual and own unique path. The tribe survives only through the collective effort of its members.

Historically and in present times, indigenous tribes remain connected with nature, recognising the interdependence between people, the planet and all species. Tribe values of respect and connection with the planet and nature have existed for centuries, and the Earth Tribe is one way to share these positive ideals with a wider community of young people.

## What is the Earth Tribe?

**The Earth Tribe is a global community of young people who are passionate about the environment and actively engaged as global citizens to preserve and protect our planet.**

The Earth Tribe guides young people on an **educational journey** to develop the awareness, competencies and leadership skills necessary to create environmental change in their communities.

Through a series of exciting **Earth Tribe Challenges**, young people learn how to connect with nature, become champions for sustainability, and engage in taking action for the environment.

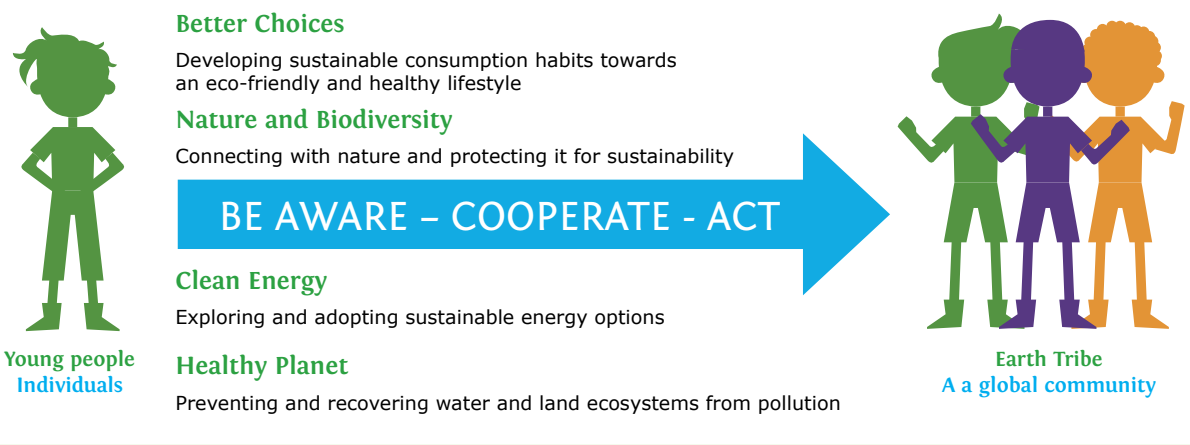
To be a member of the Earth Tribe is a **personal commitment** to improve the health of the planet and make the world a better place.

## Who is the Earth Tribe for?

The Earth Tribe is a global community of young people and adults (ages seven and above) who are willing to commit to be part of a globa movement to preserve and protect our planet. The Earth Tribe is open to young people and adults.

## A personal journey within the Earth Tribe

The Earth Tribe contributes to the development of young people with a focus on competencies for sustainable development in the area of environmental education. Young people and adults are invited to become members of the Earth Tribe by exploring several key learning paths.



## Better Choices

***Developing sustainable habits towards eco-friendly and healthy lifestyles***

This learning path helps young people to reflect on the everyday impact their choices and actions have on their immediate surrounding environment. Through this path, young people will develop their own ideas on how their community and its consumption patterns can be designed and adapted to contribute to a more sustainable lifestyle.

## Nature and Biodiversity

***Connecting with nature and protecting it towards sustainability***

Humans and nature are interdependent. Nature and biodiversity is an important learning environment for outdoor skills and discovery of the great outdoors. This learning path enables young people to understand how ecosystems underpin the web of life and also provide nourishment in the form of food, act as water catchment areas, offer homes to a multitude of species, and serve as a balance for carbon removal. Young people will develop their own ideas on how the different demands towards nature can be balanced.

## Clean Energy

***Exploring and adopting sustainable energy options***

Climate change is one of the most pressing challenges of our time facing society and young people. Climate change is mostly driven by our high demand for energy resources, including by-products from agriculture and forestry to produce energy. This strain puts responsibility on everyeveryone individually to make changes towards a better solution. In this learning path, young people will reflect on their impact on the climate and their use of energy sources. Young people will explore new possibilities for sustainable energy and other practices to mitigate climate change.

## Healthy Planet

***Preventing and recovering water and land ecosystems from pollution***

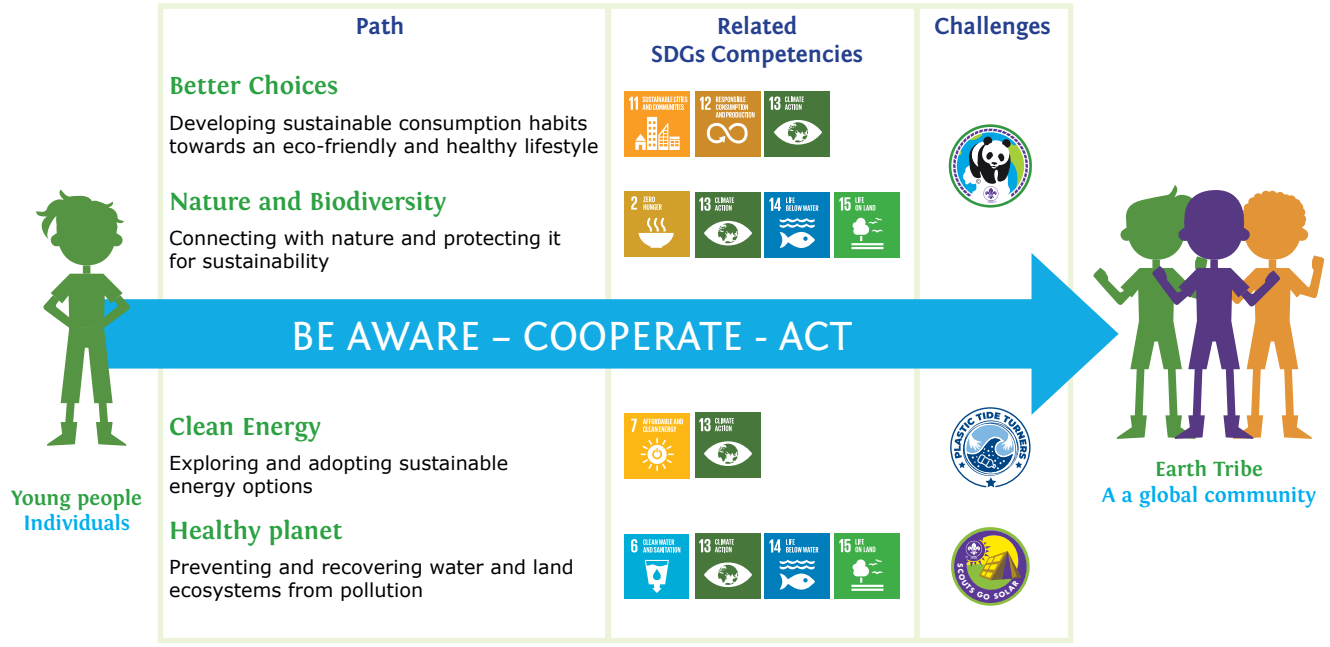
Young people thrive towards creating a better world for others and themselves. Understanding how pollution impacts the planet, identifying and challenging practices conducive to increasing pollution, and how to reduce its effects, implementing waste management is one aspect of this learning path. Land ecosystems, lakes, rivers, and oceans provide food and water for all of us, but are heavily impacted by careless pollution, and young people will work with the community, local organizations and partners to reduce, reuse and recycle waste, e.g. single-use plastics.

For each learning path, young people can develop their competencies with the support of peers and adults to become:

| | |
|---|---|
| **Advocate**<br>for better choices and a healthy lifestyle | Young people adopt and advocate for meaningful habits towards developing an eco-friendly and healthy lifestyle. |
| **Champion**<br>of nature and biodiversity through sustainability | Young people understand ecosystems and connect with nature, and adopt sustainable practices in protecting natural resources. |
| **Innovator**<br>for clean energy and climate change by adopting sustainable energy options | Young people understand the impact of energy usage in climate change, and advocate for the adoption of sustainable energy options. |
| **Healer**<br>for a clean and healthy planet building practices to address pollution. | Young people engage in designing solutions and engaging in action to prevent pollution and recover water and land ecosystems. |

During the journey through these learning paths, members of the Earth Tribe become aware by learning and discovering new knowledge, cooperate with others and with local communities to find solutions, and act for sustainability and positive change.

The Earth Tribe is also one way for young people to mobilize around Scouts for SDGs and contribute to the 17 Sustainable Development Goals.



## Earth Tribe Challenges

The Earth Tribe Initiative provides a system to inspire young people and adults to take action for the environment. Each learning path defines areas of work, specific SDGs, and key competencies related to the environment. Aligned with each learning path are a series of Challenges that include:

- Challenge Manual (defining key educational competencies, objectives and processes to implement the Challenge)
- Challenge Action Kit (highlighting actions and activities for young people)
- Challenge campaign (around a specific topic with a call to action)
- Monitoring and evaluation system with defined key performance indicators
- Challenge recognition elements including Badges and other rewards (to recognise progress, achievement and contribution towards various SDGs)
- Engagement of key partners
- Branding, key messaging and marketing materials

Similar and complementary Challenges can be found under other Initiatives offered by WOSM. Events such as camps, youth gatherings and other spaces can also be used to develop key competencies, and promote and advocate for the goals of Earth Tribe.

# Earth Tribe and personal progression

By taking this journey within the Earth Tribe, young people become part of a global community united behind a common goal to preserve and protect our planet. The Earth Tribe recognises its members as they learn, grow and take action for nature. Once young people become a member they can wear the Earth Tribe pin showing they are part of a global effort.

The Earth Tribe uses a learner-centred approach based on the concept of self-education. This method implies that each youth member is considered to be a unique individual who, from the outset, has the potential to develop in all dimensions and to take responsibility for his or her own development from an early age.[5]

Under each learning path, there are different Challenges young people can explore.

To explore the learning path through a specific learning process:


Earth Tribe
Competencies for environmental education

| | |
|---|---|
| **Challenge** | A long-term effort with a specific agenda, goals, and processes aimed to develop key competencies in young people. Challenges include wmultiple elements to ensure the development of key competencies, supported by a network. |


E.g.: Tide Turners Plastic, Scouts Go Solar, Champions for Nature, others from NSOs or NSAs or external organisations.

5. Progressive Self-Education - Essential Characteristics of Scouting (2019)

Young people receive recognition according to different age ranges after completing Challenges, such as the **Tide Turners Plastic Challenge, Scouts Go Solar Challenge, Champions for Nature Challenge** connected to the various learning paths of the Earth Tribe. For more specific information about how to implement each Challenge, refer to the individual Challenge Implementation Manuals.

Each Challenge offers a variety of options and combinations that young people agree on, with the support of an adult, based on the individual interests and personal competencies of the young person as part of their personal progression.

The educational approach is implemented through an educational system that fosters self-education, empowerment, and cooperative learning. The Earth Tribe Initiative and its Challenges brings young people closer to the learnings they are expected to acquire and offers an experience that is educational, fun, enjoyable, and where young people feel safe both physically and emotionally.

The journey aims to be flexible and relevant to the changing needs of young people and society considering the following principles of the Scout Method:

- The attitude of welcoming dialogue and support of adults;
- A set of values that determines how to assess and enrich common life;
- The challenge of personal goals, the individual commitment;
- The framework of teams that allows democratic decision-making processes and promotes youth empowerment
- The sense of purpose and belonging provided by the symbolic framework;
- The attractiveness of activities in the privileged setting of nature;
- The joy to serve others that allows young people to find a role in the community. [6]

6. The Scout Method. Essential Characteristics of Scouting (2019)

# How to explore the Earth Tribe Journey

The Earth Tribe is an invitation for young people and adults, both Scouts and non-Scouts. NSOs are encouraged to be prepared to provide all necessary support to inspire and drive action.

While young people become members by exploring a Challenge, adults become members by supporting young people in their journey. This process shows how a young person becomes a member of the Earth Tribe and how adults support young people in the process.

Earth Tribe is to provide capacity development for adults to understand the objectives and educational process of Earth Tribe for its implementation in local communities. Institutions will define the best way to designate a team to carry out action plans and promote Earth Tribe.

**Young person gets to know about Earth Tribe and wants to participate**

- Introduction to the Earth Tribe
- Introduction to paths and challenges
- Selection of path by young person

Better Choices

Nature and Biodiversity

Clean Energy

Healthy Planet

**Young Person & Adult agree on personal journey**

- mutual agreement on steps to complete the selected challenge according to age group
- mutual agreement on one community project
- mutual agreement on complementary actions for the Earth Tribe recognition

**Young person carries on agreed actions**

- Completion of Challenges
- Share your actions on scout.org and the SDG hub

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**Adult leader presents Earth Tribe pin**

- Celebrate young people in meaningful and simple ceremony with friends
- Present the Earth Tribe Pin and certificate

**Young person becomes RECOGNIZED MEMBER of the Earth Tribe**

**Continue with other Earth Tribe or Better World Challenges**

Any other you have not explored yet

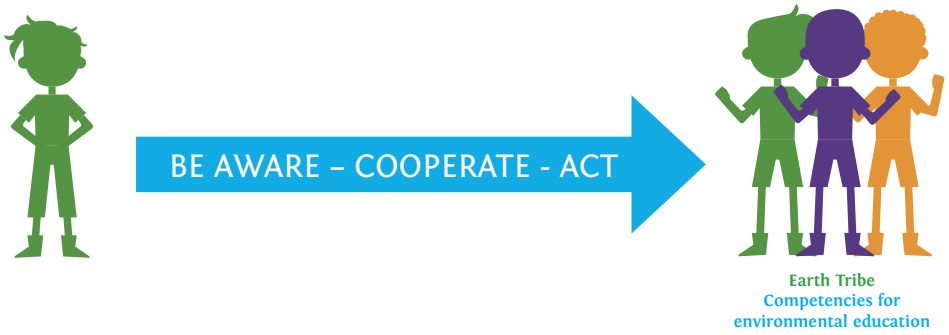
- Better Choices
- Nature and Biodiversity
- Clean Energy
- Healthy Planet

## CONGRATULATIONS!

This person is now a member of the Earth Tribe and a global citizen for the environment. It's now time to receive the Earth Tribe pin and invite others to join the journey.

# Earth Tribe learning process

The Scouts for SDGs mobilisation aims to inspire, enable and deliver on a commitment to develop active global citizens and sustainable communities. The learning process of the Earth Tribe enables young people to explore and define their educational journey in three stages:




| Be aware | Cooperate | Act |
|---|---|---|
| of your choices and the positive or negative impact of people's actions on ecosystem cycles, nature and climate change. | with others to others to identify and implement practical solutions towards protecting and improving the environmental health of surrounding ecosystems. | by practising a green lifestyle, implementing green practices and projects, and becoming environmental advocates. |

The learning process is the same for each Earth Tribe Challenge. The learning focuses on the development of competencies by encouraging young people and adults to engage and organise local actions in their community.

## Environmental education: developing competencies for sustainable development

Education for the SDGs describes a set of key competencies that are identified as important to engage constructively and responsibly in today's societies as well as to see "the big picture" of the 2030 Agenda for Sustainable Development. Creating programmes and opportunities that develop these cross-cutting competencies in young people is essential in any education focused on the SDGs since they enable and empower youth to act in their communities.

Competencies are a combination of knowledge, skills, attitudes and values which can be applied to face a certain situation and create a solution to the challenge at hand. Competencies describe the specific attributes individuals need for action and self-organization in various complex contexts and situations. Competencies cannot be taught, but have to be developed by learners themselves. They are acquired during action on the basis of experience and reflection. [7]

UNESCO has defined a set of learning objectives for each of the 17 SDGs under three key domains:

- Cognitive domain (i.e. what learners need to know);
- Socio-emotional domain (i.e. the social skills that enable learners to collaborate, negotiate, communicate, and self-reflect);
- Behavioural domain (i.e. how learners act with the

The most important aspect of the Earth Tribe Initiative and its Challenges is that these are designed to awaken curiosity for **knowledge**, and propose realistic **actions** to carry out while transforming personal **attitudes** and behaviours. Young people internalise all their experiences and learnings, developing competencies conducive to a sustainable way of living.

7. (UNESCO, 2015; Weinert, 2001)

## Advocate for Better Choices

***Learning Objectives for sustainable development*** [8]


| Domain | Ages | | |
|---|---|---|---|
| | **7 to 10** | **11 to 14** | **15 and above** |
| **Cognitive** | I know what I can do to live healthily and how to reduce my impact on the environment. | I understand connections between my lifestyle and environmental problems, as well as global wealth distribution discrepancies.<br>I understand where my food comes from. | I seek information and inspiration for healthier and more sustainable choices.<br>I learn about environmental problems in other parts of the world and how they are interconnected globally and through individual choices |
| **Socio-emotional** | I reduce my personal wants in light of the needs of the natural world, other people and future generations. | I feel responsible for the impacts of my behaviour on the environment and other people.<br>I want to become an active global citizen.<br>I feel empathy towards people who experience hunger and poverty often as a result of climate change and act to support impacted individuals. | I believe I can contribute to sustainability by reducing my environmental footprint.<br>I want to involve other members of my community into implementation of sustainable solutions.<br>I encourage others to adopt eco-friendly practices to reduce food shortages.<br>I encourage other members of my community to take part in the implementation of sustainable solutions. |
| **Behavioral** | I use every opportunity for pro-environmental behaviour. | I challenge myself and my friends to reduce our impact on the environment. | I evaluate my habits and modify them continuously to make them more sustainable and help others to do so.<br>I take steps to contribute to helping people suffering from poverty and hunger a result of environmental issues.<br>I help to change institutions and communities towards changing their practices to become more sustainable. |

Challenges connected to this learning path focus on making Better Choices and responsible habits towards consumption in relation to the environment, and supports the development of competencies related to SDGs 11, 12 and 13.

8. Adaptation from Education for Sustainable Development Goals: learning objectives

## Champion of Nature and Biodiversity

***Learning Objectives for sustainable development[9]***


| Domain | Ages | | |
|---|---|---|---|
| | **7 to 10** | **11 to 14** | **15 and above** |
| Cognitive | I know my countryside and learn about local habitats and species. | I understand the laws of nature and I am able to see how they manifest in my environment. I understand the impact of society on biodiversity. | I understand the roots of biodiversity loss at both the local and global levels. I can identify different standpoints in environmental conflicts and form my own opinion based on personal values. |
| Socio-emotional | I feel good and enjoy the outdoors and appreciate nature. | I commit to engage in actions in reducing biodiversity loss and encourage others to make a commitment with me. | I reflect on how to live my life in harmony with nature and how to help my society to become more sustainable. |
| Behavioral | I respect other living organisms while spending time in nature and I know how to behave to avoid impacting them. | I take part in events that help to protect and restore nature in our region. | In my everyday life, I take into account and measure the impact of my actions on nature and inspire others to do so as well. |

Challenges connected to this learning path focus on understanding Nature and Biodiversity in relation to good health and well-being, and supports the development of competencies related to SDGs 2, 13, 14 and 15.

9. Adaptation from Education for Sustainable Development Goals: learning objectives

## Innovator of Clean Energy

***Learning Objectives for sustainable development[10]***


| Domain | Ages | | |
|---|---|---|---|
| | **7 to 10** | **11 to 14** | **15 and above** |
| Cognitive | I understand the dependency of our civilization on external energy inputs.<br>I can discern between renewable and non-renewable energy sources. | I know the causes of climate change.<br>I can name the impact of different energy sources on the environment and climate.<br>I know how to reduce my everyday energy consumption. | I know how to mitigate climate change and how communities can adapt these changes.<br>I know the advantages and disadvantages of different energy sources and how renewable energy sources can reduce environmental impact and drive sustainable development. |
| Socio-emotional | I can talk to others about climate change and explain how it connects to my life, the life of other people and nature. | I acknowledge my responsibility in the protection of the climate. | I am willing to reduce my energy consumption and impact on the climate. |
| Behavioral | I am saving energy every day. | I am trying to reduce my impact on climate change. | I am actively promoting sustainable energy and climate-friendly activities in my personal life, in my community, and in my school or workplace. |

Challenges connected to this learning path focus on understanding how different options of energy production and consumption behaviours have an impact on climate change, and supports the development of competencies related to SDGs 7 and 13.

10. Adaptation from Education for Sustainable Development Goals: learning objectives

## Healer for a Healthy Planet

***Learning Objectives for sustainable development[11]***


| Domain | Ages | | |
|---|---|---|---|
| | **7 to 10** | **11 to 14** | **15 and above** |
| Cognitive | I know what impact pollution has on ecosystems, human health and communities. | I understand how ecosystems are impacted by pollution arising from human activities.<br>I know the largest pollutants at a local and regional level. I know what actions to take in polluted environments in order to safeguard life and health.<br>I know how my outdoor activities have an impact on nature, and what is the difference between good and bad practices. | I understand direct and indirect impacts of my lifestyle – what I eat, what I wear, what chemicals I use, on ecosystems, and learn ways to and learn ways to reduce the impact (to zero) |
| Socio-emotional | I want to help reduce human impact on nature. | I am aware of how my everyday life impacts life on earth, even far away.<br>I want my life experiences to be environmentally-friendly. | I want to reduce the impact of my lifestyle on the production of pollutants. |
| Behavioral | I am taking part in events that address the pollution of water and land ecosystems.<br>I do not litter. | Whenever possible, I reduce pollution to help protect ecosystems.<br>I urge my peers not to litter or make other actions that lead to pollution. | I protect others from the effects of pollution through my personal habits and actions in the community.<br>I am organising events that actively address the pollution of water and land ecosystems.<br>I am consciously reducing waste production in my life, and in my school or workplace. I also organise campaigns to reduce pollution. |

Challenges connected to this learning path focus on understanding the impact of human actions in keeping our rivers, oceans and lands clean to preserve life on land and underwater, and supports the development of competencies related to SDGs 6, 13, 14 and 15.

11. Adaptation from Education for Sustainable Development Goals: learning objectives

## Contributing towards the Sustainable Development Goals

Earth Tribe members are also developing a broader set of competencies for sustainable development and contributing to the 17 SDGs, while becoming  active citizens for sustainability.

SCOUTS *for* SDGs

From now till 2030, we are calling all young people and Scouts to take action by inviting community members, partners and experts in designing sustainable solutions for the issues affecting local communities. Explore more of what young people do to contribute to the achievement of SDGs through the Better World Framework.

# Who is supporting the implementation of Earth Tribe

## Scout Centres and SCENES Network

National Scout Organizations are encouraged to incorporate capacity development experiences, promotional events and training for young people and adults. Accredited SCENES Centres are key supporters in the promotion and capacity development for the Earth Tribe and its challenges. In different countries, SCENES Centres can offer this support and training with the possibility of experiencing a natural environment. Discover SCENES Centres around the world at www.scout.org/scenes

## Our network of partners

Our network of partners have contributed to the development of the Earth Tribe Initiative concept, and collaborated by integrating their educational activities into the Earth Tribe Challenges, aligning their efforts with the Scouts for SDGs mobilisation:

- **World Wide Fund for Nature** – Updating the Champions for Nature Challenge, educational objectives, and activities to fit into the Earth Tribe and BWF. This includes collaborating with WOSM around the Earth Hour campaign.
- **UN Environment Programme** – Supporting the incorporation of the Tide Turners Plastic Challenge and collaborating with WOSM on the Clean Seas campaign

Other institutions we work with:

- **Solafrica** – Updating the Scouts Go Solar Challenge in alignment with the Earth Tribe BWF.
- **FAO** – Supporting the development of the Food For Life booklets currently implemented by several NSOs in the Africa Region.
- **YUNGA** – Supporting the development of several other Challenges that can be incorporated in any of the Earth Tribe learning paths.

External actors, partners, and community members can become Scouts for SDGs and Earth Tribe partners in different ways:

- Dedicated **Scout Donation Platform Fund** - Direct support to grassroots Scouts to implement local initiatives via the Scout Donation Platform.
- Supporting short-term **awareness campaigns** implementing activities to educate young people about a key topic and encouraging them to take action. Campaigns typically have calls to action such as a pledge, commitment or good turn.
- Supporting the **development of an Earth Tribe Challenge** aligned with specific SDGs and Scouting's Youth Programme.
- Supporting the **development of structures and tools** for young people, programmes and networks, enhancing the reach of the Scouts for SDGs mobilisation.

# Monitoring and evaluation system

The Earth Tribe Initiative and its Challenges include key objectives and key performance indicators (KPIs) at the global, regional and national level to provide a mechanism to measure, monitor and evaluate their success, as well as measure the collective contribution towards Scouts for SDGs targets.

In general, the monitoring and evaluation of the Earth Tribe Initiative and its Challenges measure:

- Awareness among NSOs of Scouting's SDGs agenda;
- Awareness and development of key educational competencies for sustainable development;
- Change of behaviour of young people in relation to the educational objectives for each SDG at grassroot level with report and validation form adult leaders.
- Number of service hours and local actions contributing towards Scouts for SDGs or insitutional targets;
- Number of NSOs and institutions involved in the Earth Tribe Initiative and its Challenges captured using the NSO Data Portal;
- Relevance of partnerships contributing to Earth Tribe Challenges or activation of NSOs;
- Impact on society by documenting the experiences and behavioural change on volunteers and the changes carried out in the community after service projects are finished and benefits perceived by community members.

To measure the implementation and impact, a set of general indicators for the Earth Tribe Initiative and its Challenges have been developed.

The NSO Data Portal will be the place where National Scout Organizations teams can report, monitor and evaluate the progress, reach and impact of their contribution to the Scouts for SDG mobilisation and the level of progress of the Earth Tribe Initiative and its Challenges.

A series of digital tools are available to facilitate reporting, data collection, measurement of progress, two-way exchange of practices and recognition of teams, connecting NSOs, regional and global teams and institutions for all initiatives and challenges.

# How do we build a collaborative network for the environment?

As part of a global community, Earth Tribe members need to stay connected to continue inspiring others to protect the planet. Networking is also an excellent way to exchange knowledge, best practices and support members in other cities and countries. Every time you share a story, you contribute to inspire others with your example. Ask them to learn more about it, look at Earth Tribe webpage, or go onto scout.org.

The best way to reach out to people and engage them in a coordinated effort is when they learn the purpose of your actions. A network activates in two ways:

A **human network** integrated by young people and adults acting in the field, joining the efforts of others, inspiring people face-to-face, and supporting the dissemination of information and practical resources. This network is supported by teams organised in the NSO or regions. The human network incorporates Scouts and non-Scouts collaborating for sustainable development.

We also activate a **virtual network** where young people and adults from the same or various nationalities connect by sharing their stories of success, exchanging their experiences, asking for support or resources from other young people or Scouts, and inspiring people with their ideas.

Join efforts with local networks, Scout networks and promote the connection among the Earth Tribe members.

Earth aims to activate a global youth movement for environmental action, strong enough to make a shift in the way humans treat our planet.

# How institutions can implement the Earth Tribe and its Challenges

The Earth Tribe is open to all, and we aim to inspire young people and adults around the world to join the global community. Institutions working in the field of non-formal education or education for young people are encouraged to discover and implement the Earth Tribe Initiative and its Challenges. WOSM can provide technical support for its implementation.

For NSOs interested in implementing the Earth Tribe, the NSO's national team should assess the main needs and issues in the country, as well as the existing capacities and expertise in the NSO to develop an action plan. Institutions have the option to start the implementation of the Earth Tribe by adopting one or more of its Challenges.

## Start by identifying your strengths to set up an action plan

A very important step for NSOs adn inistitutions is to compile all relevant information before defining the objectives of the action plan. Normally, there are a lot of resources and structures in place that makes the implementation of a new Challenge easier. NSOs should identify the best methods to implement the Earth Tribe Initiative and its Challenges within a national or local context.

NSOs are encouraged to request support from the WSB via the WOSM Services platform. A consultant will be assigned and support the NSOs as required.

The NSO, when the starting to define the action plan for implementing the Earth Tribe Initiative and its Challenges, ask your national team and young people the following questions:

- Which of the Challenges can be implemented?
- Is there any national project, action that can be integrated with the Earth Tribe paths at national level?
- Has the institution assigned at least one person to assume the role of coordinator?
- What kind of resources are already in place for Challenges to be implemented?
- What level of understanding of the SDGs and education for sustainable development exists among the coordination team?
- How will young people be involved in the implementation process?
- Is there a local network in place?
- How will the institution monitor and evaluate the results and impact?

## A suggested process to get started

- Analyze your current Youth Programme in the field of environmental education
- Define objectives for your NSO and educational agenda or Youth Programme;
- Appoint one person in charge of the process;
- Recruit a multi-generational, gender-balanced team for implementation;
- Develop capacity in the team supported by WOSM Services;
- Define an implementation and action plan, including monitoring and evaluation strategies;
- Integrate the recognition elements within the national Youth Programme and personal progression scheme;
- Invite existing or potential partners to collaborate (when available);
- Integrate and onboard existing teams, networks and resources;
- Organise training and promotional events for young people and adults;
- Share the story to inspire and demonstrate impact.

NSOs interested in adapting or implementing the Earth Tribe Initiative and its Challenge within their national Youth Programme may submit a request via the WOSM Services platform to receive direct support. The Better World Service Team will assist NSOs in the exercise to validate, align and adapt the Earth Tribe Initiative and its Challenges to fit their national Youth Programme. Coordination, and monitoring and evaluation of the Earth Tribe Initiative and its Challenges will be the responsibility of NSOs and regions, in coordination with the global level.

## Customising the Earth Tribe to your local context

Institutions may only be interested in some of the Earth Tribe Challenges, or NSOs may already have some community development projects with a long tradition and successful results. In this case, environmental projects can be aligned with SDGs competencies and incorporated into the Earth Tribe in your local context.

## Earth Tribe Logo

**The Earth Tribe is a global community of young people who are passionate about the environment and actively engaged as global citizens to preserve and protect our planet.**

The logo represents the organic discovery of the Tribes of our planet: Urban tribes, Environment Tribes, Digital Tribes. The colours of the mosaic an their secondary visual elements are inspired by the colours of earth, nature and the sustainable development goals to which Earth Tribe is committed to.

The Earth Tribe Identity Guidelines provide information and resources to help National Scout Associations/Organizations (NSAs/NSOs) develop promotional and educational materials when adopting the Earth Tribe initiative into their national Youth Programme.

WOSM encourages and supports the adoption and use of its graphics by its member organizations and partners. We have introduced the unified concept of what is considered commercial or non-commercial use of any WOSM brand or logo on any item, based on the intent "to offer it for sale" or not, in order to simplify authorised use of our designs by our member organizations. **These conditions are described in more detail on page 4 of the Earth Tribe Identity Guide.**

This document, and the information on the website, do not provide, or imply any right, for anyone to use these designs for commercial purposes, nor the right to modify the basic logo and badge in any way, other than for translation purposes.

**earthtribe.scout.org**

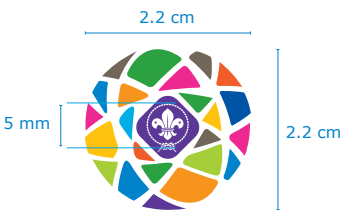
Positive version

Variation

## Single colour reproduction

Due to the limitations of certain methods of reproduction (such as photocopies) the positive logo is permitted to appear in black and white, purple and exeptional in green (Variation).

When the logo is reproduced in colour, always use all of the colours specified. Do not, for example, modify them or use only some of the colours.




World Scout Emblem has minimum width 5 mm

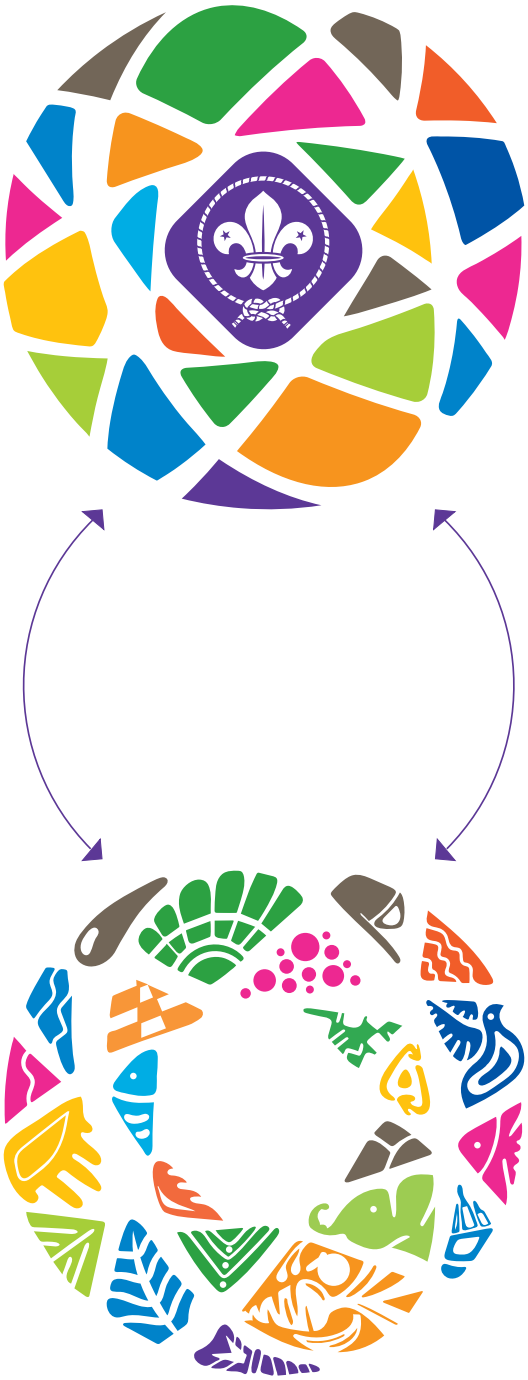
## Minimum Size:

Taking as a reference the artwork without the wordmark, the mosaic should not be reproduced in a size less than 2.2 cm in width, and may only be this small if the method of reproduction provides good resolution. The aim is to make sure that the size and method of reproduction allows for a reasonable quality image of the World Scout Emblem.

**About the ®**
**(rights reserved) symbol**

The Earth Tribe and the World Scout Emblem is a registered trademark and its use is therefore subject to authorisation.

## Colour Specifications



| WEB | RGB | CMYK |
|---|---|---|
| #622599 | R98 G37 B153 | C79 M94 Y0 K1 |
| #0054A6 | R0 G84 B166 | C70 M15 Y0 K0 |
| #0099CC | R0 G153 B204 | C100 M35 Y0 K0 |
| #00CCCC | R0 G173 B229 | C100 M0 Y5 K1 |
| #339933 | R51 G153 B51 | C76 M0 Y100 K13 |
| #99CC33 | R153 G204 B51 | C40 M0 Y100 K0 |
| #FF3399 | R225 G51 B153 | C0 M95 Y20 K0 |
| #FF6633 | R255 G102 B51 | C0 M79 Y95 K0 |
| #FF9933 | R255 G153 B51 | C0 M50 Y100 K0 |
| #FFCC00 | R255 G204 B0 | C0 M25 Y100 K0 |
| #726658 | R114 G102 B88 | C50 M50 Y60 K25 |
| #000000 | R0 G10 B0 | C100 M100 Y100 K100 |

## Secondary visual elements

The secondary style element is part of Earth Tribe brand design and shows the symbolic connection within Environmental education, these paterns derived from the main logo design, will run through every communication point like a visual constant, this patterns holds together the entire look and feel of the Earth Tribe initiative and its challenges.

The secondary style element is dynamic and helps Earth Tribe brand stay unified, reflecting nature and planet earth, it›s natural resources and the common goal of preserving our natural resources.

**Path**
**Better Choices**

**Path**
**Nature and Biodiversity**

**Path**
**Clean Energy**

**Path**
**Healthy Planet**

Variations of the secondary visual elements

## Language Versions

Translating the Earth Tribe wordmark logo into another language **is NOT permitted.**

If you wish, you may only translate the word Earth Tribe into another language when it is written as text in the body of your documents.

wordmark

earthtribe

~~tribudelatierra~~

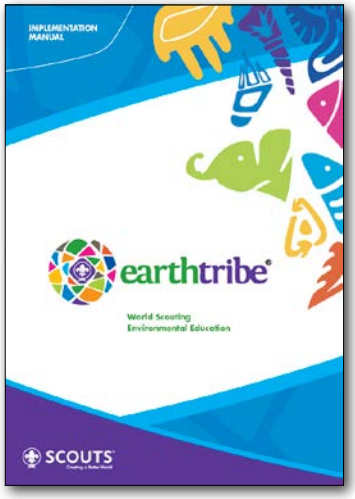
as wordmark

Sample simulation
Earth Tribe PIN

Final size and manufacture may variate

## Earth Tribe Pin

By taking this journey within the Earth Tribe, young people become part of a global community united behind a common goal to preserve and protect our planet. The Earth Tribe recognises its members as they learn, grow and take action for nature. Once young people become a member they can wear the Earth Tribe pin showing they are part of a global effort.




## Reproduction of the contents of the Earth Tribe Initiative

The content of the Implementation Manuals and Action Kits can be reproduced by NSAs/ NSOs, educational institutions and partners.

This Identity Guide helps to support consistent use and presentation of the Earth Tribe initiative. Original files can be made available by the World Scout Bureau.

SCOUTS®
Creating a Better World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June 2020

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WHAT IS COAL MADE FROM?

A. DEAD PLANTS
B. DINOSAUR FOSSILS
C. A WHOLE BUNCH OF CHEMICALS MIXED TOGETHER BY SCIENTISTS

WHAT PERCENTAGE OF THE ENERGY USED AROUND THE WORLD COMES FROM FOSSIL FUELS?

A. NONE
B. NEARLY 90%
C. 40%

WHAT DOES THE WORD "PETROLEUM" MEAN?

A. ROCK OIL
B. ANCIENT SEA CREATURE
C. SWAMP GAS

IF YOU LIVE IN EUROPE, HOW MUCH ENERGY DO YOU USE COMPARED TO A PERSON IN INDIA?

A. ABOUT THE SAME
B. TWICE AS MUCH
C. FOURTEEN TIMES AS MUCH

THE WORD "PETROLEUM" MEANS

A. ROCK OIL (PETRA + OLEUM)
B. ANCIENT SEA CREATURE
C. SWAMP GAS

IF YOU LIVE IN EUROPE, COMPARED TO A PERSON IN INDIA YOU USE

A. ABOUT THE SAME
B. TWICE AS MUCH
C. FOURTEEN TIMES AS MUCH ENERGY

COAL IS MADE FROM

A. DEAD PLANTS
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ENERGY USED AROUND THE WORLD COMES FROM FOSSIL FUELS BY

A. NONE
B. NEARLY 90%
C. 40%

WHICH OF THE FOLLOWING COUNTRIES HAD A 50% INCREASE IN SOLAR CELL PRODUCTION IN 2006?

A. GERMANY
B. SWEDEN
C. USA
D. JAPAN

WHICH INNOVATOR FIRST CREATED A DEVICE CAPABLE OF GENERATING ALTERNATING CURRENT (AC) ELECTRICITY?

A. THOMAS EDISON
B. NIKOLA TESLA
C. BENJAMIN FRANKLIN
D. MICHAEL PUPIN

HOW MUCH LESS ENERGY IS USED TO MAKE AN ALUMINUM CAN FROM RECYCLED CANS RATHER THAN FROM NEW MATERIALS?

A. 35%
B. 65%
C. 75%
D. 95%

WHICH COUNTRY CREATED A MULTI- MILLION DOLLAR PRIZE FOR ADVANCES IN WIND AND TIDAL ENERGY IN 2008?

A. SCOTLAND
B. SWEDEN
C. SWITZERLAND
D. SPAIN

TO MAKE AN ALUMINUM CAN FROM RECYCLED CANS RATHER THAN FROM NEW MATERIALS USES

A. 35%
B. 65%
C. 75%
D. 95% LESS ENERGY

CREATED A £10-MILLION (16M10 $) PRIZE FOR ADVANCES IN WIND AND TIDAL ENERGY IN 2008
A. SCOTLAND (SALTIRE PRIZE)
B. SWEDEN
C. SWITZERLAND
D. SPAIN

50% INCREASE IN SOLAR CELL PRODUCTION IN 2006 HAD
A. GERMANY (RENEWABLE ENERGY LAW)
B. SWEDEN
C. USA
D. JAPAN

FIRST CREATED A DEVICE CAPABLE OF GENERATING ALTERNATING CURRENT (AC) ELECTRICITY
B. NIKOLA TESLA
TESLA, BORN IN AUSTRIA-HUNGARY IN 1856, EMIGRATED TO THE US, WHERE HE SOLD THE PATENT TO GEORGE WESTINGHOUSE.

ELECTRICAL ENERGY CAN BE PRODUCED FROM ...

A. MECHANICAL ENERGY
B. CHEMICAL ENERGY
C. RADIANT ENERGY
D. ALL OF THE ABOVE

BURNING OIL PRODUCES ...

A. NITROGEN (N2)
B. OXYGEN (O2)
C. CARBON DIOXIDE (CO2)
D. OZONE (O3)

MOST OF THE ENERGY WE USE ORIGINALLY CAME FROM ...

A. THE SUN
B. THE OZONE LAYER
C. THE CENTER OF THE EARTH
D. THE OCEANS

GLOBAL WARMING FOCUSES ON AN INCREASE IN THE LEVEL OF WHICH GAS IN THE ATMOSPHERE?

A. OZONE (O3)
B. SULFUR DIOXIDE (SO2)
C. CARBON DIOXIDE (CO2)
D. NITROUS OXIDE (N2O)

MOST OF THE ENERGY WE USE ORIGINALLY CAME FROM ...

A. THE SUN
B. THE OZONE LAYER
C. THE CENTER OF THE EARTH
D. THE OCEANS

GLOBAL WARMING FOCUSES ON AN INCREASE IN THE LEVEL IN THE ATMOSPHERE OF

A. OZONE (O3)
B. SULFUR DIOXIDE (SO2)
C. CARBON DIOXIDE (CO2)
D. NITROUS OXIDE (N2O)

ELECTRICAL ENERGY CAN BE PRODUCED FROM ...

A. MECHANICAL ENERGY
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C. RADIANT ENERGY
D. ALL OF THE ABOVE

BURNING OIL PRODUCES ...

A. NITROGEN (N2)
B. OXYGEN (O2)
C. CARBON DIOXIDE (CO2)
D. OZONE (O3)

RENEWABLE ENERGY SOURCES...

A. ARE CONSTANTLY RE-PRODUCED BY NATURE
B. PROTECT THE OZONE LAYER
C. CAN BE EASILY TRANSMITTED OVER LONG DISTANCES
D. DO NOT POLLUTE THE ENVIRONMENT

WHICH DO YOU THINK HAS THE MOST ENERGY?

A. A HURRICANE
B. A NUCLEAR BOMB
C. ALL THE OCEANS' WAVES

SOLAR, BIOMASS, GEOTHERMAL, WIND, AND HYDROPOWER ENERGY ARE CALLED RENEWABLE BECAUSE THEY ...

A. ARE CLEAN AND FREE TO USE
B. CAN BE CONVERTED DIRECTLY INTO HEAT AND ELECTRICITY
C. CAN BE REPLENISHED BY NATURE IN A SHORT PERIOD OF TIME
D. DO NOT PRODUCE AIR POLLUTION

ELECTRICITY IS THE MOVEMENT OF ...

A. ATOMS
B. MOLECULES
C. ELECTRONS
D. NEUTRONS

SOLAR, BIOMASS, GEOTHERMAL, WIND, AND HYDROPOWER ENERGY ARE CALLED RENEWABLE BECAUSE THEY ...

A. ARE CLEAN AND FREE TO USE
B. CAN BE CONVERTED DIRECTLY INTO HEAT AND ELECTRICITY
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ELECTRICITY IS THE MOVEMENT OF ...

A. ATOMS
B. MOLECULES
C. ELECTRONS
D. NEUTRONS

RENEWABLE ENERGY SOURCES...

A. ARE CONSTANTLY RE-PRODUCED BY NATURE
B. PROTECT THE OZONE LAYER
C. CAN BE EASILY TRANSMITTED OVER LONG DISTANCES
D. DO NOT POLLUTE THE ENVIRONMENT

THE MOST ENERGY HAS

A. A HURRICANE (10 TIMES B)
B. A NUCLEAR BOMB (SAME AS C)
C. ALL THE OCEANS' WAVES

WHEN WILL THE SUN STOP SHINING?

A. NEVER
B. IN A FEW BILLION YEARS
C. NEXT WEEK ON TUESDAY

ONE KILOWATT-HOUR EQUALS ...

A. 10 KILOVOLTS
B. 1000000 CALORIES
C. 100 CELSIUS
D. 1000 WATT-HOURS

HOW MUCH ENERGY DO YOU THINK A BOLT OF LIGHTNING HAS?

A. ENOUGH TO TOAST 160,000 SLICES OF BREAD
B. ENOUGH TO TOAST ONE LOAF OF BREAD
C. ENOUGH TO TOAST ONE SLICE OF BREAD

A 100-WATT LIGHT BULB CONSUMES HOW MUCH ENERGY IN 24 HOURS?

A. 24 CALORIES
B. 2.4 KILOWATT-HOURS
C. 240 ELECTRON-VOLT
D. 2400 JOULES

HOW MUCH ENERGY DO YOU THINK A BOLT OF LIGHTNING HAS?

A. ENOUGH TO TOAST 160,000 SLICES OF BREAD

B. ENOUGH TO TOAST ONE LOAF OF BREAD

C. ENOUGH TO TOAST ONE SLICE OF BREAD

IN 24 HOURS A 100-WATT LIGHT BULB CONSUMES

A. 24 CALORIES

B. 2.4 KILOWATT-HOURS

C. 240 ELECTRON-VOLT

D. 2400 JOULES

THE SUN WILL STOP SHINING

A. NEVER

B. IN A FEW BILLION YEARS

C. NEXT WEEK ON TUESDAY

ONE KILOWATT-HOUR EQUALS ...

A. 10 KILOVOLTS

B. 1000000 CALORIES

C. 100 CELSIUS

D. 1000 WATT-HOURS

THIS SOURCE OF RENEWABLE ENERGY IS NOT WEATHER DEPENDENT

A. HYDROPOWER
B. WIND
C. GEOTHERMAL
D. SOLAR

CELL PHONE BATTERIES CONVERT ... ENERGY INTO ELECTRICITY

A. NUCLEAR
B. CHEMICAL
C. GRAVITATIONAL
D. KINETIC

THE EARTH GETS ... SOLAR ENERGY TO MEET ALL OF OUR ENERGY NEEDS

A. JUST ENOUGH
B. 50 TIMES LESS THAN ENOUGH
C. NOT ENOUGH
D. 1000 TIMES MORE THAN ENOUGH

GREEN PLANTS CONVERT SOLAR ENERGY INTO ...

A. HYDROGEN
B. URANIUM
C. CHEMICAL ENERGY
D. X-RAYS

THE EARTH GETS ... SOLAR ENERGY TO MEET ALL OF OUR ENERGY NEEDS

A. JUST ENOUGH
B. 50 TIMES LESS THAN ENOUGH
C. NOT ENOUGH
D. 1000 TIMES MORE THAN ENOUGH

GREEN PLANTS CONVERT SOLAR ENERGY INTO ...

A. HYDROGEN
B. URANIUM
C. CHEMICAL ENERGY
D. X-RAYS

THIS SOURCE OF RENEWABLE ENERGY IS NOT WEATHER DEPENDENT

A. HYDROPOWER
B. WIND
C. GEOTHERMAL
D. SOLAR

CELL PHONE BATTERIES CONVERT ... ENERGY INTO ELECTRICITY

A. NUCLEAR
B. CHEMICAL
C. GRAVITATIONAL
D. KINETIC

A FLYWHEEL STORES ... ENERGY

A. POTENTIAL
B. KINETIC
C. CHEMICAL
D. ELECTRICAL

HOW MANY TIMES THE HEAT ENERGY STORED IN THE UPPERMOST 10KM OF THE EARTH'S CRUST IS EQUIVALENT TO THE ENERGY STORED IN ALL OIL AND GAS?

A. 50,000 TIMES
B. 500 TIMES
C. 5 TIMES
D. 0.5 TIMES

GEYSERS ARE EXAMPLES OF ... ENERGY

A. SOLAR
B. WIND
C. TIDAL
D. GEOTHERMAL

WHAT ENERGY SOURCE DOES THE SUN USE?

A. THERMAL
B. FUSION
C. BIOMASS
D. LIGHT

GEYSERS ARE EXAMPLES OF

A. SOLAR
B. WIND
C. TIDAL
D. GEOTHERMAL
ENERGY

THE SUN USES AS ENERGY SOURCE

A. THERMAL
B. NUCLEAR FUSION
C. BIOMASS
D. LIGHT
HYDROGEN INTO HELIUM

A FLYWHEEL STORES

A. POTENTIAL
B. KINETIC
C. CHEMICAL
D. ELECTRICAL
ENERGY

THE HEAT ENERGY STORED IN THE UPPERMOST
10KM OF THE EARTH'S CRUST IS EQUIVALENT TO

A. 50,000 TIMES
THE ENERGY STORED IN ALL OIL AND GAS

CAN YOU GUESS WHAT SOME FARMERS NEAR THETFORD, NORFOLK, ARE DOING WITH CHICKEN POO?

A. SELLING IT TO A POWER STATION
B. EATING IT
C. BURYING IT

WHAT IS THE SUN MOSTLY MADE OF?

A. WATER
B. HYDROGEN
C. IRON

THE AMOUNT OF SOLAR ENERGY REACHING THE EARTH IN ONE HOUR IS EQUIVALENT TO THE WORLD'S ELECTRICITY NEEDS FOR...?

A. A DECADE
B. A YEAR
C. A MONTH
D. FOR A DAY

WHAT DO WE CALL THE BLACK SPOTS ON THE SURFACE OF THE SUN?

A. SUNSPOTS
B. TURBULENCES
C. ERUPTIONS

THE AMOUNT OF SOLAR ENERGY REACHING THE EARTH IN ONE HOUR IS EQUIVALENT TO THE WORLD'S ELECTRICITY NEEDS FOR...?

A. A DECADE
B. A YEAR
C. A MONTH
D. FOR A DAY

WHAT DO WE CALL THE BLACK SPOTS ON THE SURFACE OF THE SUN?

A. SUNSPOTS
B. TURBULENCES
C. ERUPTIONS

CAN YOU GUESS WHAT SOME FARMERS NEAR THETFORD, NORFOLK, ARE DOING WITH CHICKEN POO?

A. SELLING IT TO A POWER STATION
B. EATING IT
C. BURYING IT

WHAT IS THE SUN MOSTLY MADE OF?

A. WATER
B. 73.5% HYDROGEN, 25% HELIUM
C. IRON

HOW OLD IS THE SUN?

A. 365 DAYS
B. 4.57 BILLION YEARS
C. 10.2 BILLION YEARS

HOW MAN TIMES DOES THE EARTH FIT INTO THE SUN?

A. 3'000 TIMES
B. 13'000 TIMES
C. 1'300'000 (1.3 MILLION) TIMES

THE DISTANCE BETWEEN EARTH AND SUN IS ABOUT 150'000'000 KM. HOW LONG DOES LIGHT TRAVEL TO COVER THIS DISTANCE?

A. ~ 1 SECOND
B. ~ 8 MINUTES
C. EXACTLY 24 HOURS

HOW HOT IS THE SURFACE OF THE SUN?

A. 600°C
B. 6'000°C
C. 10'000°C

THE DISTANCE BETWEEN EARTH AND SUN IS ABOUT 150'000'000 KM. HOW LONG DOES LIGHT TRAVEL TO COVER THIS DISTANCE?

A. ~ 1 SECOND

B. 8 MINUTES AND 19 SECONDS

C. EXACTLY 24 HOURS

HOW HOT IS THE SURFACE OF THE SUN?

A. 600°C

B. 6'000°C

C. 10'000°C

HOW OLD IS THE SUN?

A. 365 DAYS

B. 4.57 BILLION YEARS

C. 10.2 BILLION YEARS

HOW MAN TIMES DOES THE EARTH FIT INTO THE SUN?

A. 3'000 TIMES

B. 13'000 TIMES

C. 1'300'000 (1.3 MILLION) TIMES

HOW MANY 60 WATT LIGHT BULBS ARE NECESSARY TO REACH THE BRIGHTNESS OF THE SUN?

A. 6'410 PIECES
B. 6.41 MILLION PIECES (6'410'000)
C. 6.41 SEPTILLION PIECES
6'410'000'000'000'000'000'000'000

WHAT IS THE NAME OF THE OUTERMOST VISIBLE LAYER OF THE SUN FROM WHICH THE RAYS OF THE SUN ORIGINATE?

A. PHOTOSPHERE
B. ATMOSPHERE
C. PHOTOGRAPHY

QUESTION 3

A. FIRST
B. SECOND
C. THIRD

QUESTION 4

A. FIRST
B. SECOND
C. THIRD

ANSWER 3

A. FIRST
B. SECOND
C. THIRD

ANSWER 4

A. FIRST
B. SECOND
C. THIRD

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C. PHOTOGRAPHY

# WORKBOOK FOR SOLAR ENERGY ACTIVITIES

SOLAFRICA.CH

YUNGA :: WOSM

# CONTENTS

## INTRODUCTION



# Introduction

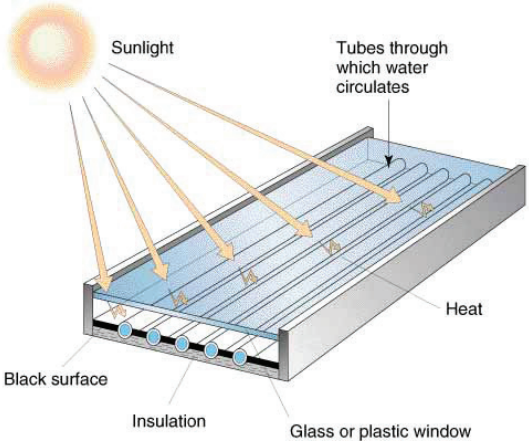
This Workbook is a practical help for Group Leaders.
It is part of the Solar Energy Handbook for Leaders available for download on solafrica.ch/scout-badge
Detailed descriptions for the Activities might be necessary and can be found in the handbook.
If you have developed material which can be useful for other Leaders that you'd like to share, please send it to scoutsgosolar@solafrica.ch

# Instruction Sheets for Solar Introduction Workshop

These Instruction sheets help you or the participants to understand the stations of the Introduction Workshop.
You can copy them, so every Station has it's instruction sheet and doesn't need your explanations.
It might be necessary to translate them to your language.

STATION 1a)

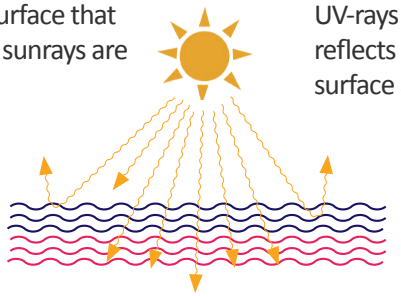
# COLOR OF HEAT




Solar collectors absorb solar energy. We can also say they take in or collect energy. Depending on its physical properties, a surface may absorb much or little energy. One important factor in determining this amount is the surface color.

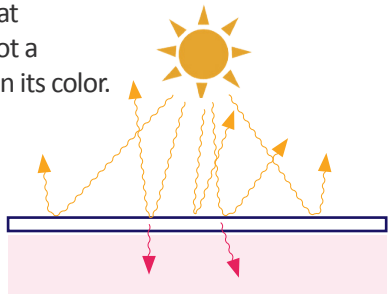
## Color

UV-rays from the sun strike a surface that absorbs much of the light. The sunrays are transformed into heat.



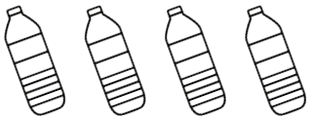
## Reflection

UV-rays from the sun strike a surface that reflects most of the light. Whether or not a surface absorbs UV-rays also depends on its color.



STATION 1a)

ASSIGNMENT



1. Fill four PET bottles of different colour with equal amounts of water until they are almost full.
   Get water from the bathroom sink.
2. Measure the temperature in each bottle and note under „initial temperature“.
3. Lay the bottles, next to each other in the sun and guess which bottle will heat up the most.
   Discuss until you agree, then write down your estimate.
4. Wait 30 minutes and repeat the procedure.
   (You may want to start your next assignment in the meantime)
5. Which bottle contains the warmest water? What do you think is the reason?
6. Empty the bottles at the end of the experiment and put them back.

STATION 1a)

COLOR OF HEAT

| | | | | |
|---|---|---|---|---|
| Color | | | | Black |
| Initial temperature | | | | |
| Our estimate | | | | |
| After 30 minutes | | | | |
| Temperature difference | | | | |

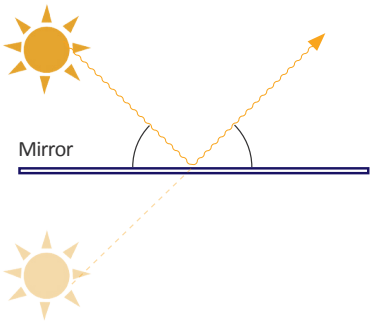
STATION 1a)

COLOR OF HEAT

| | | | | |
|---|---|---|---|---|
| Color | | | | Black |
| Initial temperature | | | | |
| Our estimate | | | | |
| After 30 minutes | | | | |
| Temperature difference | | | | |

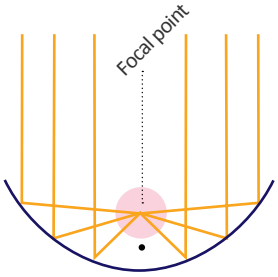
## STATION 1b)

## FOCUSING OF SUNLIGHT

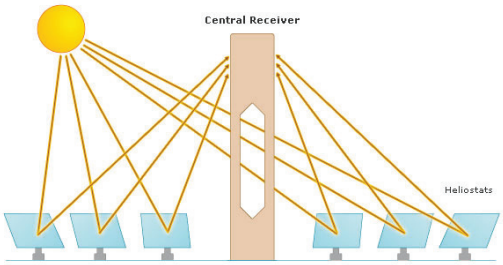



In the diagram on the left a ray of light strikes a reflective surface at an oblique angle. The reflective surface may be a glass mirror or a metal plate or a pane of glass. The ray of light is reflected by the reflective surface.

Parabolic mirrors are curved mirrors that collect rays of light and focus them on a single point. The temperature in this focal point can get very hot; in this way it is even possible to cook with solar energy.




According to legend, Archimedes set Roman ships on fire at a considerable distance by means of an array of mirrors placed along the shore. Even today, the principle of the parabolic reflector continues to be used in a number of technologies: there are solar installations that heat water by means of parabolic reflectors; one can also use a parabolic reflector to cook food; and the so-called power tower uses mirrors to focus sunlight on the tip of a tower to turn water into steam. The steam powers a turbine that generates electricity. In Spain, a power station of this type (the PS10 in Andalusia) generates electricity for 60'000 households.



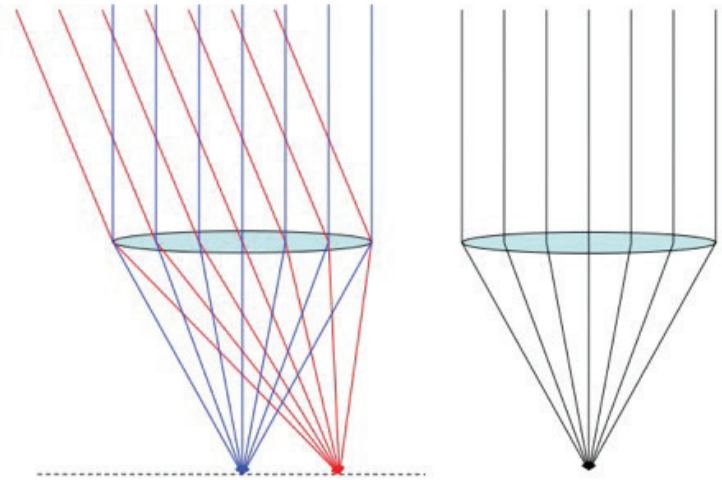

## STATION 1b)

## ASSIGNMENT

1. Take a mirror into each hand.
2. Turn the mirrors towards the sun so that the sunlight reflected by the mirrors forms spots of light on the target (thermometer's tip).
3. Adjust the position of your mirrors so the reflected spots of light come to rest on top of each other.
4. Now position yourselves so that all your light points converge on the tip of the thermometer.

Trough a lens, sunlight can be focused to one point, without being reflected (compare the mirror method for focusing sunlight). In the focus point, the power of sunlight can be seen. On a sunny day, you can even light your fire with a lens. In concentrated photovoltaic technique, lenses (or parabolic mirrors) are used to focus sunlight onto small but highly efficient solar cells. According to the technology used, additional solar tracking and cooling might be necessary.

**Solar Tracking:** Orienting the device in an ideal angle towards the sun to reach maximum efficiency. Usually, electronical devices can do this job. See if you can "solar track" your lens.





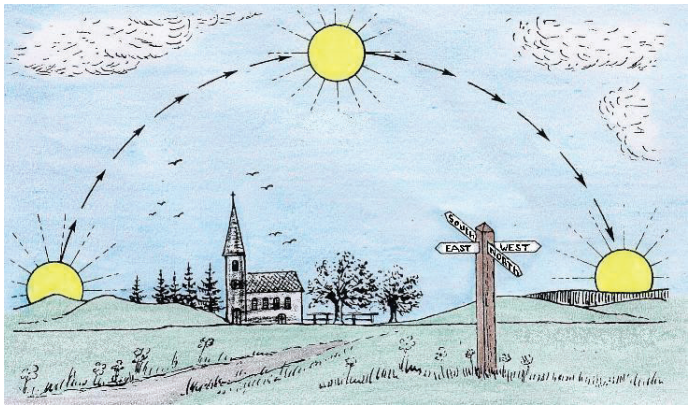
1. Take a small wooden board and draw or write with a pencil your theme.
2. Put on dark sunglasses with UV-protection.
3. Take a big lens and find the point where the sunrays focus.
4. "Draw" along the lines of your sketch on the wooden board by burning a line.
5. When you've done, put the lens in a container where it can not catch sunlight.

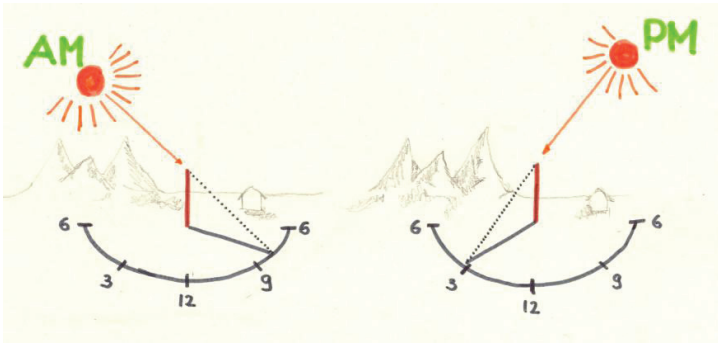
   Put back the sunglasses if they are not yours.

## STATION 2)

## SUNDIAL

The earth rotates once about its own axis within 24 hours. As a result we experience ‚day' when our side of the earth faces the sun and ‚night' when it faces away from it.
The day begins with the first rays of sun that appear on the horizon. The sun then seems to traverse the sky on a big arc, reaching the highest point at noon and slowly descending until it disappears below the horizon in the evening. This is the course of the sun. When you are on the northern hemisphere, the sun rises in the east, descending in the west. On the southern hemisphere, it is the opposite.




With the help of a sundial one can use the course of the sun to measure time. Stick a pole into the ground and you can watch its shadow wander in the opposite direction of the sun throughout the day.

## STATION 2)

## ASSIGNMENT

- In what direction (North, South, West, East) must the arrow of the sundial point so that the sundial indicates the correct time?
- In what direction would one have to hold the sundial in South Africa (southern hemisphere) in order to indicate the correct time ?

## SUNDIAL

## INSTRUCTIONS

For this sundial, you'll need a copy of the template and an (elastic) string.

1. Copy/Print the Sundial template on the next page
2. Glue it evenly on cardboard.
3. Cut at the outer line and the short dashed line in the middle (bottom of the two Flaps only).
4. Find out your latitude (e.g. in an Atlas) and mark a line on the left and right of the base (marked with scales 35°-55°). Draw a line from your required latitude trough the "X" Symbols at the top of the scale. Cut at these lines. You may want to note at the top of the Sundial your location/latitude.
5. Fold on dashed lines to the indicated direction. For sharper folds, score on the opposite side (fold backwards, score on front + vice versa).
6. Score on the back along the horizontal line in the middle (between "noon" and "a.m. p.m.") and fold to the front. The flaps help you bringing it into a right angle.
7. At the top and bottom, where all lines converge, make a small hole. Attach a String trough these holes. The string is the gnomon of your sundial.
8. You're done! You only need to position your sundial in the right direction.

## SUNDIAL

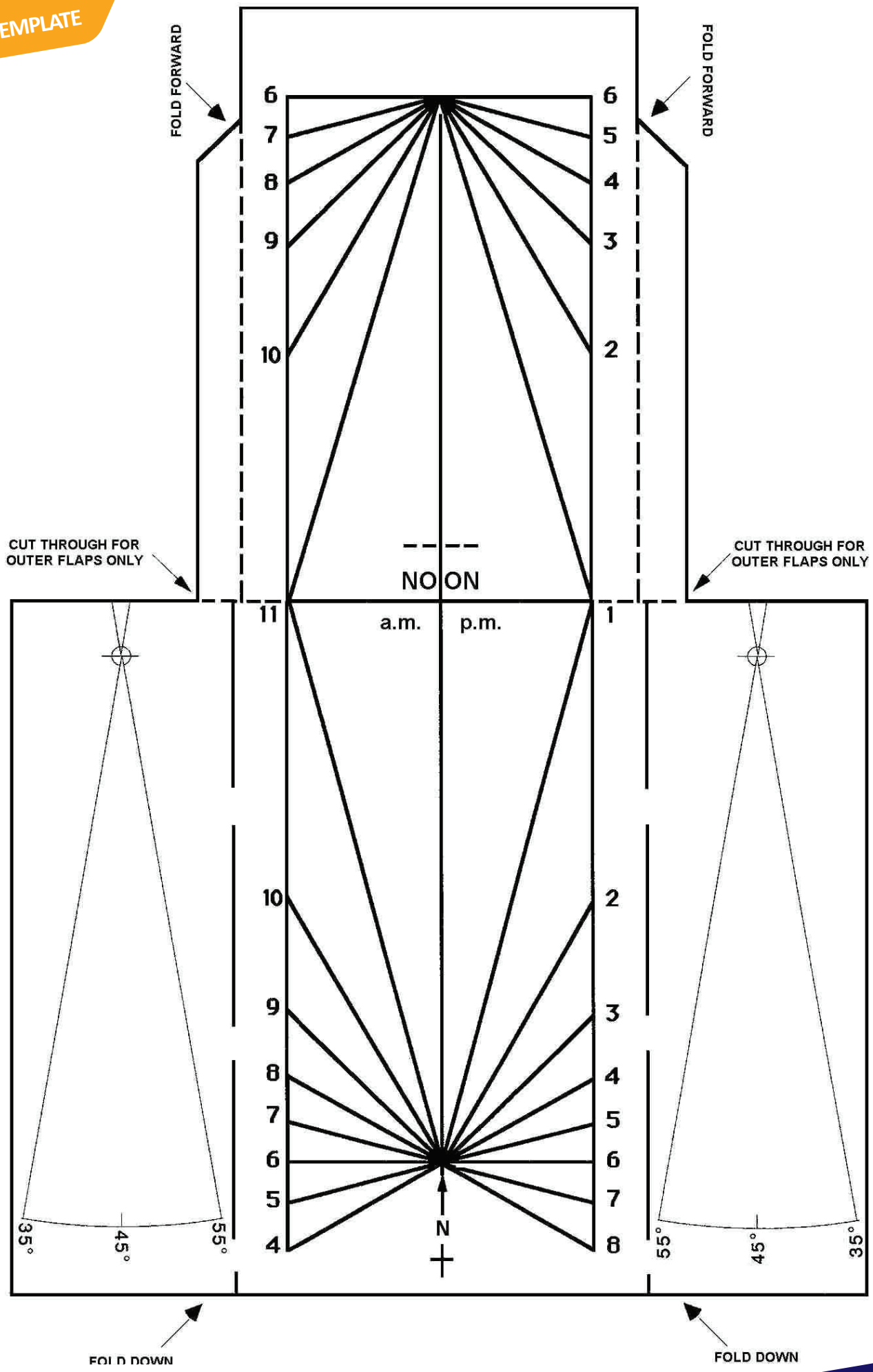
## POSITIONING

The sundial needs to be placed, where the gnomon can cast a shadow.
During the day, as this sundial is portable, you can change place (e.g. inside a building).
It also must be positioned with the gnomon pointing north/south.
**Here are described three methods:**

**Purist Method:** North can be found by observing Polaris, the North Star, at night. In orientating the sundial, the gnomon is actually being pointed to the North Celestial Pole which is within 1° of the North Star. Thus, if you can find Polaris at the end of the Little Dipper, line up your dial by pointing the gnomon towards Polaris. You might want to record the orientation for your dial by making light pencil marks on a window sill for future reference. Those in southern latitudes will not be able to use this method as there is no bright star near the South Celestial Pole.

**Practical Method:** A magnetic compass may be used to determine the north/south line, but, because of the difference between magnetic north and true north, the dial reading could be out by an hour or more depending on the local difference between magnetic and true north (or south if in southern latitudes).

**Lazy Person's Method:** To a first approximation, the orientation can be found by finding the orientation at any time from a clock or watch and orientating the dial so the shadow shows the correct time. However, if left in this position, there could be an error of up to 30 minutes over the year as a result of what is known as the „equation of time". Because of the Earth's orbital motion around the Sun, the solar day (apx. 24 hours) is not exactly the same length from day to day varying by up to ±16 minutes a day. However, if the orientation is carried out on April 15, June 10, Sept. 1 or Dec. 20, this error will be negligible and any orientation made between April 15 and 1 Sept. will be in error by, at most, a few minutes (but don't forget the effect of daylight savings time).


FOLD FORWARD
FOLD FORWARD
6
7
8
9
10
6
5
4
3
2
CUT THROUGH FOR OUTER FLAPS ONLY
CUT THROUGH FOR OUTER FLAPS ONLY
NOON
11
a.m.
p.m.
1
10
9
8
7
6
5
4
2
3
4
5
6
7
8
35°
45°
55°
N
55°
45°
35°
FOLD DOWN
FOLD DOWN

## Eectricity can be generated in different ways. Here are a few examples:

### HYDRO POWER
Water flows through a turbine which is attached to a generator. Pulled by gravity of a natural or artificial altitude difference the water powers the turbine and the generator which, not unlike a water wheel or a bicycle dynamo, transforms kinetic energy to electricity.

### WIND POWER
The wind drives a turbine much like a windmill, except here, as in the generation of hydro-power, the kinetic energy is converted to electricity.

### NUCLEAR POWER
Nuclear fission releases energy that is used to turn water to steam. The rising steam drives a turbine that generates electricity.

### SOLAR POWER
Photovoltaics: The rays of the sun are transformed into electricity by means of photovoltaic (solar) cells.
Solar collector: The rays of the sun heat water or an other fluid which can be used for heating or washing.

### FOSSIL FUELS
Dead sea organisms, both plants and animals, collect at the bottom of the sea and are covered by layers of sediment over time. Under great pressure and heat, over thousands of years, these layers of organic matter are slowly transformed to petroleum which can be refined into fuels such as gasoline. Vast amounts of CO2 contained in plants and animals is eventually stored in petroleum and released upon combustion.



1. Match the different energy sources (cards) with the corresponding energy cubes.

   The size of the cubes reflects the number of GWh (Gigawatt hours)

2. Discuss the following questions:
   - How much energy do the rays of the sun release in a year onto a surface the size of your country?
   - How much electricity from various sources is generated annually in your country?
   - Do you know other electricity sources?

**IMPORTANT:** Please put the cards back when you're done

STATION 4)

ENERGY USE IN HOUSEHOLDS

Every household around the world consumes energy in different amounts. The differences are due to the climate, availability of electricity and electrical devices, energy efficiency, and the sources of energy.

Assemble the four houses representing four different countries:

**USA, Singapore, Switzerland, India.**

TIPS:

a) the size of a house is represented by the size of the roof (red)
b) there can not be two pieces of the same colour in one house
c) every colour represents a category of energy use

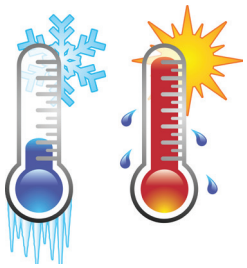
1. heating – orange
2. lightning – yellow
3. appliances – purple
4. cooling – white
5. water heating – blue
6. cooking – green
7. other – black

*Try to figure out which puzzle belongs to which country and answer the questions on the back side.*
*Do you know other electricity sources?*

STATION 4)

ASSIGNMENT

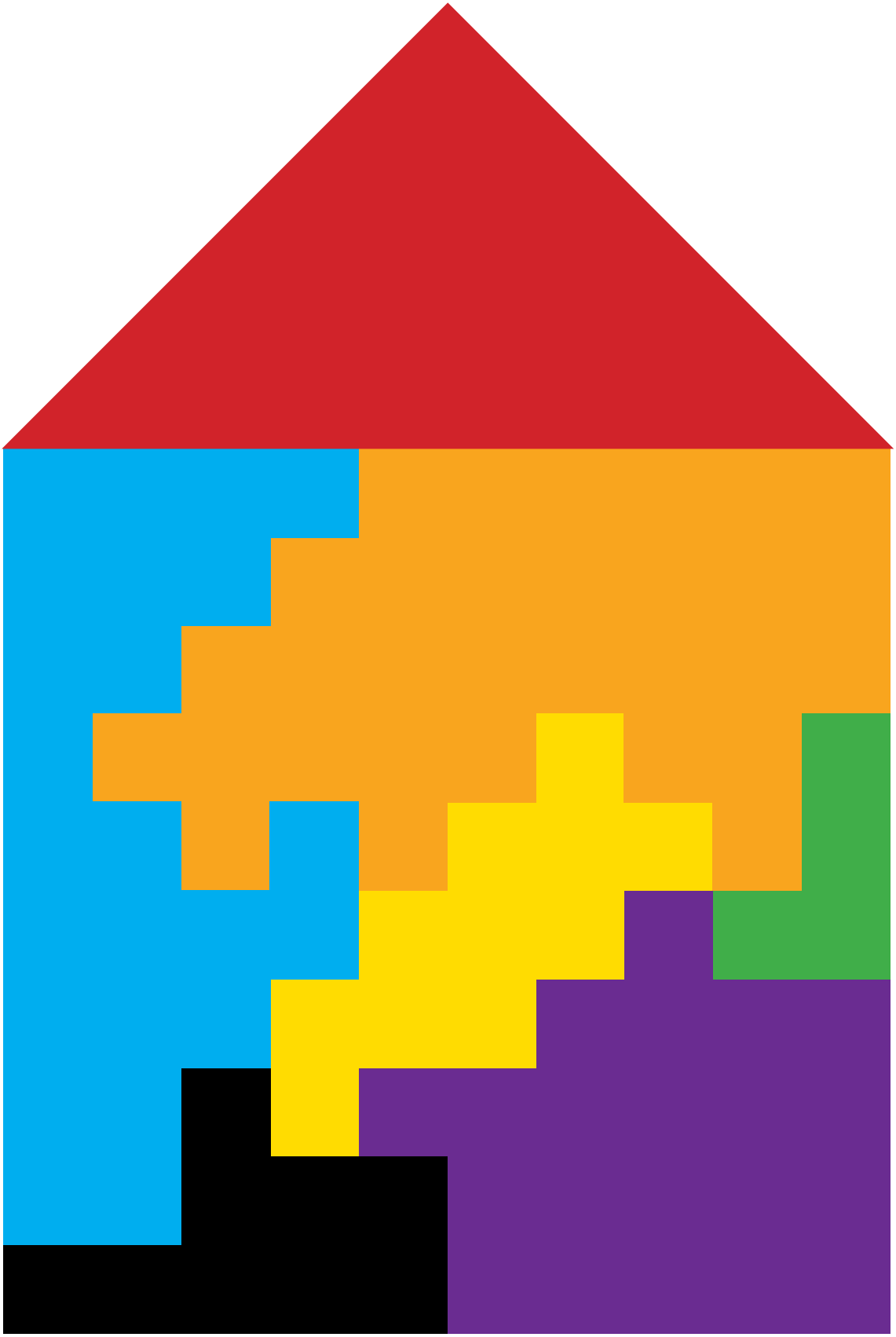
## Discuss the following questions:



1. Why is the heating percentage different for different countries?
2. Which country uses more energy for heating and why?

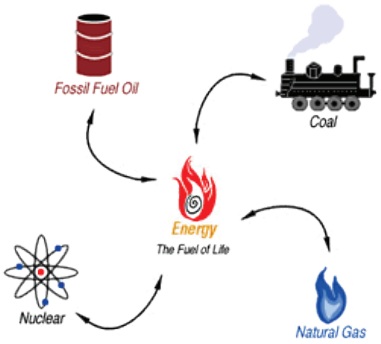
3. Which of these countries is currently considered more energy efficient? (General Knowledge)
4. Why does the USA household use more energy for heating than the Swiss household?

**IMPORTANT:** Separate the puzzle pieces after you finished this exercise.



## STATION 5)

## RENEWABLE/ NON-RENEWABLE RESOURCES


**Renewable energy** is energy generated from natural resources that are naturally replenished within a human lifetime (wood, biomass) or energy that does not deplete the source (solar, wind energy, hydro power) that generates it. Besides hydro power this group includes solar energy, the warmth from the earth's interior (geothermal energy), as well as the tides generated by the gravitational pull of moon and sun (high and low tide).

The supply of fossil fuels such as petroleum, coal, or natural gas is limited and will eventually run out; once the reserves of crude oil are depleted it will take millennia for new supplies to grow. Fossil fuels also increase global warming and pollute the air. However, the overwhelming majority of the world's population today depend on just such fossil fuels for electricity, heat, and transport.Nuclear energy (nuclear fission and nuclear fusion, respectively; the latter is still in development) does not usually count as renewable. The production of electricity in a nuclear power plant requires uranium, a raw material that is not renewable and generates extremely dangerous radioactive waste.

Benefits people obtain from ecosystems are called "ecosystem services". They can be distinguished in four categories: Supporting services, provisioning services, regulating services and cultural services. Ecosystem services is sometimes used synonymous with "ecosystem functions".

## STATION 5)

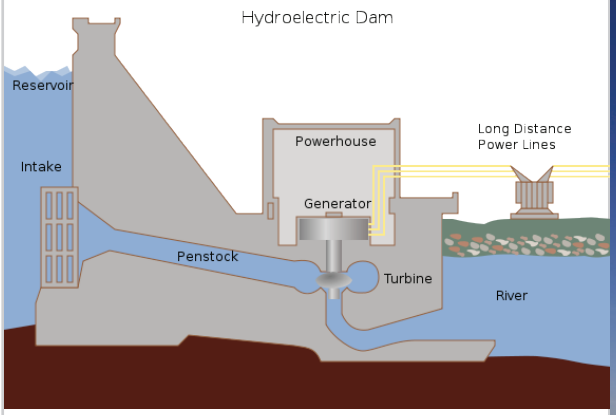
## ASSIGNMENT

1. Classify the cards in the three categories
   - "Renewable Resources"
   - "Renewable Ecosystem Services"
   - "Non-renewable resources".
2. Answer the following questions:
   - Which energies are dependent on the sun?
   - Which energies derive from earthly sources – from an element that exists on earth or from a resource can be „planted"?

**IMPORTANT:** Please put the cards back when you're done

| | |
|---|---|
| **RENEWABLE RESOURCE** | **NON-RENEWABLE RESOURCE** |
| **RENEWABLE ECOSYSTEM SERVICE** | *A crop of vegetables* |
| *The replenishment of rivers trough the water cycle* | *Solar Energy* |

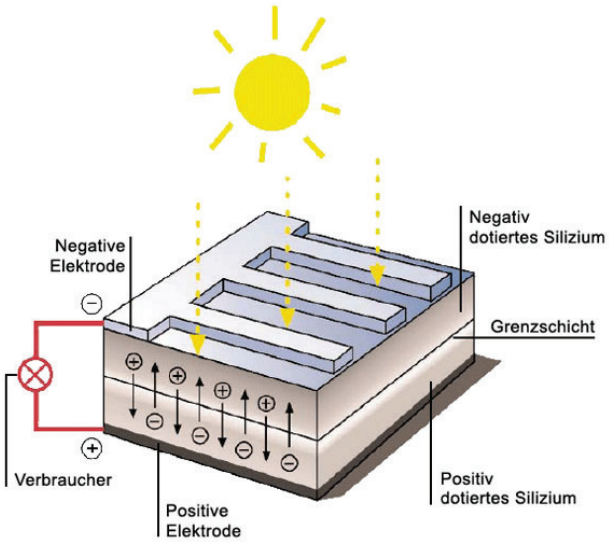
| | |
|---|---|
| *Pollution absorbing ability of a wetland* | *Iron Ore* |
| *A herd of cattle* | *Crude Oil* |
| *A hardwood forest* | *Beauty provided by a mountain* |

| | |
|---|---|
| *A school of tropical fish* | *Ability of the ocean to trap CO2* |
| *Coal* | *Metals* |
|  |  |

**Photovoltaics** is the direct transformation of solar energy into electrical energy by means of solar cells. Solar cells have been used on satellites and space craft since 1958. In the meantime arrays of solar cells have become fairly common as electricity generators on earth, e.g. on roofs, on parkingmeters, in calculators, on noise barriers and in large open spaces. The amount of solar energy that radiates to earth in the form of light and heat is roughly 15‘000 thousand times larger than the total energy used by humans. This radiation energy can be captured and partly transformed into electricity without undesirable side effects such as emissions (e.g. carbon dioxide).

The rays of the sun (light) are turned into electricity by means of solar cells. The electricity generated in this way can be used on site, stored in batteries, or fed into the electrical grid.

Individual solar cells are usually deployed in larger units called solar modules/panels. As rays of sunlight hit the solar cell they generate positive and negative charges that migrate to the respective poles. Now you can attach your electronical device, and it begins to turn.






1. Have fun with playing with all kind of Gadgets run by Solar Electricity.
2. Which of the items are run directly or indirectly (battery) on solar energy?

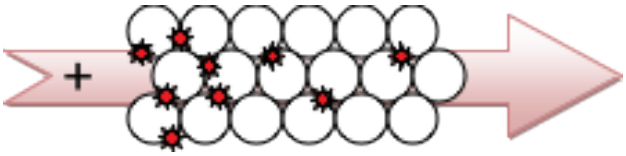
## Why does a solar powered flashlight work at night when no rays of sunlight power the solar cells?

Electric current can be stored, in a battery for instance, and released again when needed. We use batteries to operate electronic devices that do not plug into a power outlet. When the battery's current is depleted we discard the battery unless it is rechargeable.

A small container that stores electricity is called a battery. The electric current is stored as chemical energy. Batteries consist of two different metals with opposing charges: one has a positive charge, the other a negative one. In other words, the battery has a positive pole and a negative pole. If the battery is attached to a an electric circuit a current runs through the circuit and lights up a small light, for instance. There are many devices today that run on battery power: flashlights, radios, alarms, telephones, etc.

## Electrical current: why does an electrical current flow?

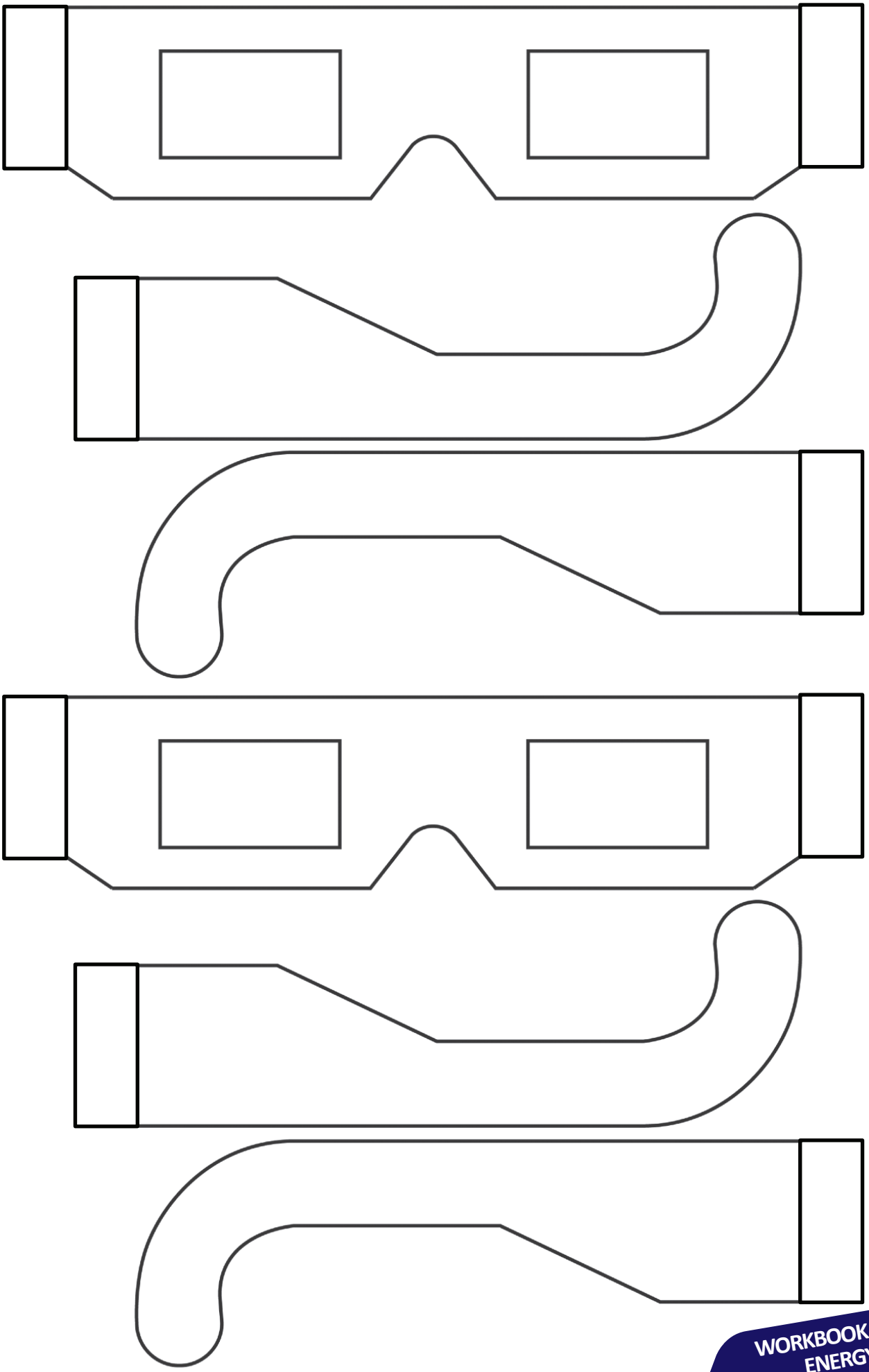
Metals consist of an atomic lattice. Atoms are made up of a nucleus and electrons. Within the atomic lattice the electrons move around freely. At the negative pole of the battery there is a surfeit of electrons and at the positive pole a lack of electrons. The difference between the two charges is called "tension" (and is measured in volts). Tending towards equilibrium the electrons flow from the negative pole to the positive pole until the tension on both sides is the same and the current stops flowing. At that point we say: „the battery is empty".

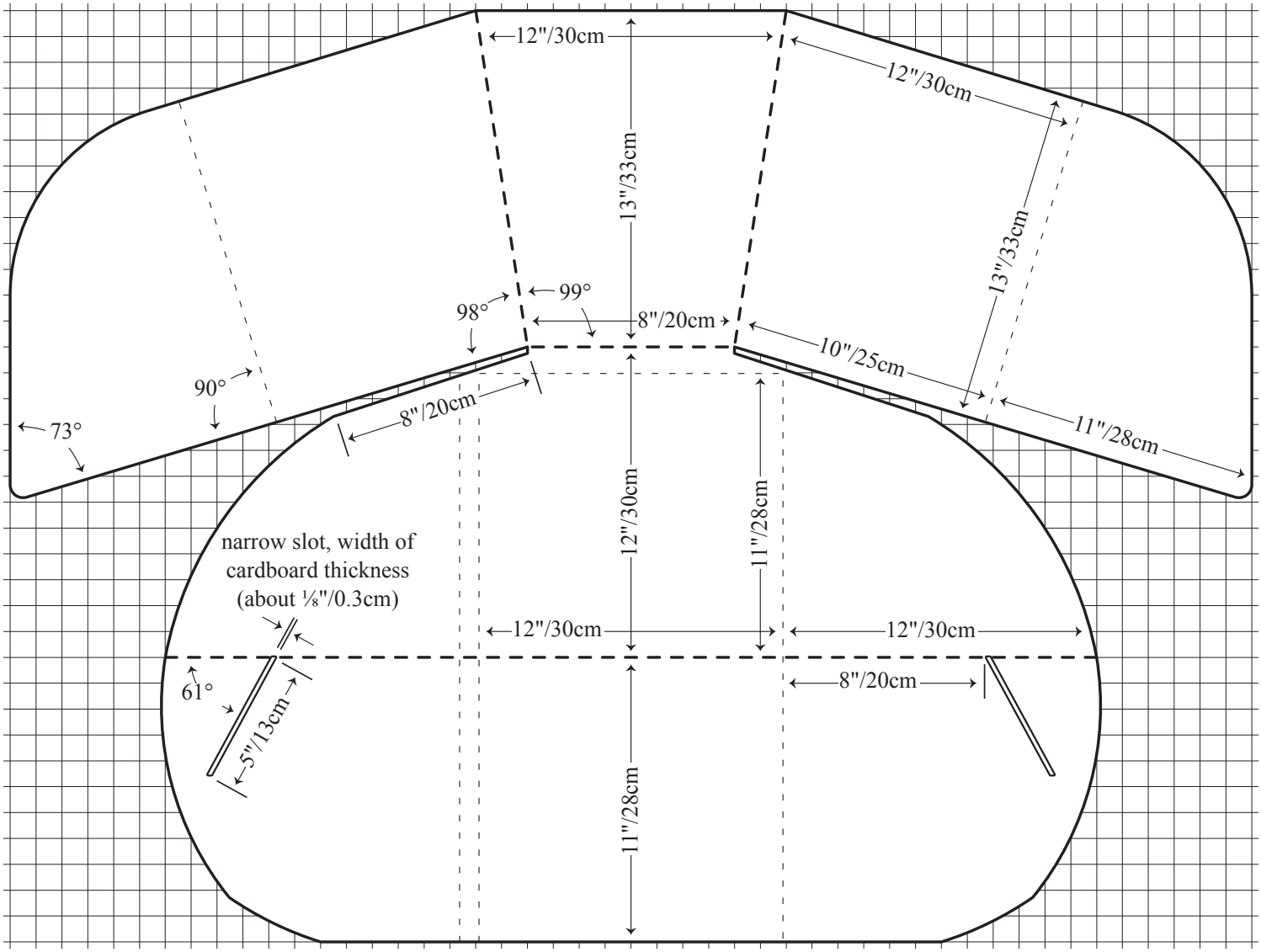





1. Connect pieces of zinc, copper and fruit with the plus and minus pole of a beeper.

   This is a simple electrical circuit model. What is the right order of the pieces to make it work?
2. If the beeper does not make a sound, add more pieces.
3. Dismantle the potato battery when you are done and put the different pieces back




12"/30cm
13"/33cm
12"/30cm
13"/33cm
99°
98°
8"/20cm
10"/25cm
11"/28cm
90°
73°
8"/20cm
narrow slot, width of cardboard thickness (about ⅛"/0.3cm)
12"/30cm
11"/28cm
12"/30cm
12"/30cm
8"/20cm
61°
5"/13cm
11"/28cm

| | Renewable | Non-renewable |
|---|---|---|
| **Power Density*** | Low | High |
| **Power Supply** | Less mobile<br>(but can be improved through technological development) | Highly mobile |
| **Dependency** | Dependent on weather (sun/wind), natural resources and technology | Independent from weather<br>Dependent on natural resources and technology |
| **Cost** | Cheaper in the long term<br>Cheaper regarding all related costs (e.g. impact on environment, health, etc.) | Cheaper in the short term<br>Expensive regarding all related costs |
| **Availability** | Infinite<br>No depletion | Finite<br>Depleting |
| **Environment** | Little or no pollution<br>Large-dimensioned projects may trigger environmental concerns | High level of pollution |

*** Power density:** The amount of power per unit volume (renewable energies use more "space").

# MATERIAL LISTS

These lists can help you to assemble your own “Solar Kit” or a useful Product like the Solar Suitcase or LED Lamp.
These are examples and kept as simple as possible. If you buy and assemble your own material, be sure that safety, especially regarding electricity, is always given. If you are not sure about your material, refer to a professional electrician or order the kit from solafrica.ch/scout-badge

A complete kit to assemble your own solar lamp can be bought from Solafrica:
www.solafrica.ch/scout-badge

## Material List

1. Solar Panel
2. LED
3. PCB Board with a chip*
4. Switch
5. Diode
6. 100mH induction
7. Battery holer
8. NiM:H rechargeable battery 1,2V
9. Cable

* This piece is specially produced for this self assembling kit.
  It can not be bought in ordinary electronic shops.

## Tool List

1. wire cutter
2. wire stripper if available
3. knife or cutter
4. pliers
5. soldering iron and tin/lead

Tools are not part of the self-assembling kit.

Find detailed instructions in the construction manual.
www.solafrica.ch/scout-badge

The Solar Starter Kit is composed to help Leaders run activities from the Solar Handbook

## Material List

1. Solar water pump/fountain
2. Solar Radio*
3. Solar Torch*
4. Solar grasshopper*
5. Big lens
6. Digital Thermometer
7. Smart lamp self-assembling kit
8. Box

* Combined and other similar gadgets can be found on the market.

The chart below shows you all the different components, which are included in the Solar Center Box.

## Material List

1. Solar cooker „Light Oven III“
2. Solar Cooking pan black for Light Oven III
3. Solar water pump/fountain „Palermo“
4. Gadgets with Solar energy
   - Solarradio
   - Solar Torch
   - Solar Grasshopper
   - Solar Car/Helicopter
   - CD-Spinner
5. Mega Power Station
6. Big Lens
7. Digital Thermometer
8. Smart lamp self-assembling kit (10 kits)
9. Energy Saving Card Set
10. Solar Energy Presentation
11. Box/Suitcase

*Additionally you‘ll need more items which can be found in any place:*
*Cooking accessories, oven glove, cooking ingredients, small mirrors, ….*

Here are listed all the different components which are needed for a Solar Suitcase

## Material List

1. Suitcase: hard shell with wheels, not too small
2. Solar Panel: 12V, 20-40W
3. Battery: 12V sealed (maintenance free) lead acid, 17-22 Ah
4. Charge Controller: 12V, 6A or more
5. Inverter: 12 V > 115V or 230V (according to power grid), 100-300W
6. 3 or 4 light switches (rated at least 1A)
7. 3 or 4 LED lamps: 12V DC LED lamps and sockets 3-7W each
8. Wires:
   - 2m AWG14 or 2.5mm$^2$
   - 2 x 0.5m AGW12 or 4mm$^2$
   - 3-5m/lamp AWG12 or 0.75mm$^2$
9. Fuse and Fuse Holder: DC Fuse rated 10A (or5A)
10. Female car cigarette lighter (multi-socket)
11. 12V USB adapter for cigarette lighter socket
12. Attachment material: screws, cable ties, tape, etc.
13. Optional: radio, ...

## Tool List

1. Different size and type of screw drivers
2. wire cutter
3. wire stripper if available
4. knife or cutter
5. pliers
6. power drill
7. saw
8. multimeter
9. soldering iron and tin/lead

See also the Construction manual for the Solar Suitcase.
www.solafrica.ch/scout-badge

ACTION KIT

# Tide Turners Plastic Challenge

SCOUTS®
Creating a Better World

SCOUTING DEVELOPMENT
June 2020

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This document is primarily for National Scout Organizations (NSOs), National Scout Associations (NSAs) and educational institutions in general.

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The United Nations Environment Programme (UNEP) is the leading global environmental authority that sets the global environmental agenda, promotes the coherent implementation of the environmental dimension of sustainable development within the United Nations system, and serves as an authoritative advocate for the global environment.

Their mission is to provide leadership and encourage partnership in caring for the environment by inspiring, informing, and enabling nations and peoples to improve their quality of life without compromising that of future generations.

# Plastic Tide Turners Challenge

# CONTENT

## WOSM

Scouting provides young people with opportunities to participate in programmes, events, activities and projects that contribute to their growth as active citizens. Through these initiatives, young people become agents of positive change who inspire others to take action.

## United Nations Environment Programme UNEP

The United Nations Environment Programme (UNEP) is the leading global environmental authority that sets the global environmental agenda, promotes the coherent implementation of the environmental dimension of sustainable development within the United Nations system, and serves as an authoritative advocate for the global environment.

Our mission is to provide leadership and encourage partnership in caring for the environment by inspiring, informing, and enabling nations and peoples to improve their quality of life without compromising that of future generations.

This kit is designed for all young people within the age from 7 years and above, to educate young people about plastic pollution and to encourage them to play a part in resolving environmental issues, specifically related to plastics, plastic waste, and plastic pollution. The Tide Turners Plastic Challenge action kit offers a variety of activities and tools for each age range and capacities to start discovering and get hands-on.

## The Tide Turners Plastic Challenge action kit is designed for young people to:

- Know and understand the impact of our behaviours in using plastics and how it affects ecosystems.
- Being able to identify the needs and challenges in your community and work with others to create sustainable solutions.
- Understand and act to reduce your personal use of single-use plastics;
- Take action and contribute to solving a specific issue related to a Healthy Planet while working with the key actors: community, your group, partners.

- Understand how the global community is tackling the issue;
- Inspire your friends, family, school, and community to reduce, reuse and recycle single-use plastics;

Take the lead on a wider scale to create lasting change in your region or community related to the use of single-use plastics, marine litter and microplastics, specifically in preventing and recovering water and land ecosystems from pollution.

Complete the requirements of the Tide Turners Plastic Challenge to get the badge recognition, become a member of the Earth Tribe network, and get the chance to be a:

**Healer**

for a Healthy Planet from pollution

Young people engage in designing solutions and take action to prevent pollution and contribute to the recovery of water and land ecosystems with community actions.

# How to get the Tide Turners Plastic Badge

This is one of the many challenges that enable young people to become part of the Earth Tribe and adults need to be ready to provide all necessary support for young people to succeed in this journey.

**Discover and share interest to take on Challenge**

- Introduction to becoming a member of the Earth Tribe
- Introduction to the Tide Turners Plastic Challenge
- Conduct a self-assessment

**You and adult leader agree on personal path (be aware, cooperate, act) by**

- Agree on knowledge, attitudes and activities related to a specific age range for the Tide Turners Plastic Challenge
- Agree on a community development project focused on healthy planet
- Agree on the complementary actions for recognition

**carry on agreed actions**

- Becoming aware by obtaining and sourcing information
- Cooperate by planning projects or joining events
- Act by executing projects, doing good turns or participating in advocacy or promotional initiatives
- Share actions on scout.org and the SDG hub

**Evaluate the results and impact with peers, beneficiaries and adult leaders**

- Engagement, promotion and advocacy actions
- community development project

**Reflect and evaluate the COMPETENCIES with with peers, beneficiaries and adult leaders**

- skills,
- knowledge and
- attitudes developed

**Adult Leader presents the Champions for Nature Challenge Badge**

- Celebrate young people in meaningful and simple ceremony in your group.
- Present the badge and certificate

Now you are a Member of the Earth Tribe

CONGRATULATIONS

You have become a

**Healer for a Healthy Planet**

You are now a member of the Earth Tribe and has earned the Earth Tribe recognition.

You can continue the journey by completing other paths to contribute more towards the achievement of the 17 SDGs

**Continue with a new Earth Tribe Path**

Any other you have not explored yet

- Better Choices
- Nature and Biodiversity
- Clean Energy
- Healthy Planet

## How:

Scouts for SDGs mobilisation aims to INSPIRE, ENABLE and DELIVER active global citizens and sustainable communities. The Earth Tribe applies the objective of young people for SDGs from an environmental education perspective as:


Earth Tribe
Competencies for
environmental education

The Tide Turners Plastic Challenge contributes to the development of young people with a specific set of actions related to Healthy Planet. Young people, with the support of adults, use the same process in each age section, selecting a different set of activities accordingly.

- **Be aware** of the world around you and key environmental concerns.
- **Cooperate** with others to find solutions to protect ecosystems, biodiversity and outdoor spaces.
- **Act** to develop and implement actions that can make a difference.

## Tide Turners Plastic Challenge - Be Aware

**What is it about**

Explore and understand different environmental issues related or as a result of plastic pollution on land and water.

**How:**

- **Complete a self-assessment** on how much do you understand the issues related to plastics, plastic waste, and plastic pollution.
- **Audit your plastic usage** in your personal life through the plastic audit quiz before going through the activities.
- **Do at least 5 activities** for 7 to 10 years of age, and 4 activities for 11 years of age and above in the path. you can use your own activities considering competencies of Healthy Planet
- **Plan and carry on** with a community service project.

## Champions for Nature Challenge - Cooperate

**What is it about**

Being able to identify the needs and challenges in your community and work with others to create sustainable solutions.

**How:**

- Identification of issues or needs with your group, community, and partners.
- Explore possible solutions together and decide which one to work on as a project
  - Brainstorm different options with community members
  - Check the feasibility of the projects and sustainability in the long term.
  - Present results to community members of beneficiaries
  - Agree on a solution to bring into action
- Design and action plan to execute your project, communicate it, and gather the necessary funds and resources.
  - Set up one SMART goal: (Specific - Measurable - achievable - Realistic - Time-based)
  - Apply sustainability principles in your plans and be mindful of the use of resources.

*you can use "How to develop a community service project - guidelines" for the two steps of "Corporate & Act"*

## Creating behavior change[1]

Wanting to change the world (for better) is always great but it's never easy. Most people like to change their ways like a turtle likes a plastic bag (sorry—too soon?). Work as a team and support one another. Before getting started, think hard about how to make your projects successful.

The following may provide some food for thought:

- **Be specific**. E.g., instead of saying "use less plastic," you could advise others to "start carrying a reusable water bottle around."
- **Action planning**. Help the people you're working with create a realistic plan that can work.
- **Paying attention** to current behavior. It helps when people start thinking about how they do things and how they could/ should change.
- **What's getting in the way?** Everyone has a ton of excuses. No time, no money, not enough info. Be prepared for this and arm yourself with helpful alternatives and information.
- **Putting words into action.** Talking about stuff isn't enough. Getting others to try things out for themselves helps them take the plunge and has more impact.
- **Spending time in nature.** Get your friends off their phones and in the fresh air. Feeling more connected with nature makes people want to look after the planet and keep it beautiful.
- **Saying it out loud.** Try to get others to make public commitments about tackling plastic pollution. Making promises makes it more likely they will keep their word.
- **Share, share, share.** Encourage everyone to spread the word through their networks and communities. People are more likely to listen to what a friend has to say than a politician or some random official.
- **Keeping an eye on things.** Making a start is one thing, but how to make sure people keep up their good behavior? Follow up with them, send them reminders, prompts, and maybe even start a system of rewards.

1. Adapted from Making It Count—Increasing the Impact of Climate Change and Food Security Education Programmes.

# Self-assessment

## Tide Turners Plastic Challenge

You're joining in the Young Leaders Plastic Challenge—yay! and before forging ahead, please take the self-assessment. Doing so will give a moment of reflection about your level of knowledge and awareness in the area of Healthy planet.

- Choose the sheet of your age section
- Tick the boxes next to each point in the area of Healthy Planet, based on your personal knowledge, skills, and attitude.
- Write down some notes in the section of "My Personal Goals" and "My Activities" to kickstart your challenge journey..

**Note:**

*If you are below 15 years old, please use the assistance of your leader to fill the form.*

**Name:**

**Mark with √ or X in what level do you see yourself for each of these learning objectives.**

Discover - I am at the beginning of my exploration.

Exploring - I am on my exploration.

Aware - I have finished my exploration.

| **Age section (7-10)** | I am at the beginning of my exploration. | I am on my exploration. | I have finished my exploration. | **My Personal Goals**<br><br>I can choose an issue I want to work on through positive actions(assisted by an adult) | **My Activities**<br><br>Define an activity or project (personal or with my team/ patrol) |
|---|---|---|---|---|---|
| | (√ or X) | | | Write notes to start your Champions for Nature Challenge journey | |
| **Healthy planet** | | | | | |
| 1 | I know what impact pollution has on ecosystems, human health and communities. | | | | |
| 2 | I want to help reduce human impact on nature. | | | | |
| 3 | I am taking part in events that address the pollution of water and land ecosystems. | | | | |
| 4 | I do not litter. | | | | |

**Name:**

| **Age section (11-14)** | | I am at the beginning of my path and I need to learn more about the issues | I am on my path and I started a project or activity | I understand the issues, participate in activities and projects and promote the solution to the issues | **My personal GOALS**<br><br>I can choose an issue I want to impact with positive actions | **My Activities**<br><br>Define an activity or project (personal or with my team/patrol) |
|---|---|---|---|---|---|---|
| | | (√ or X) | | | Write notes to start your Champions for Nature Challenge journey | |
| **Healthy planet** | | | | | | |
| 1 | I understand how ecosystems are impacted by pollution arising from human activities. | | | | | |
| 2 | I know the largest pollutants at a local and regional level. I know what actions to take in polluted environments in order to safeguard life and health. | | | | | |
| 3 | I know how my outdoor activities have an impact on nature, and what is the difference between good and bad practices. | | | | | |
| 4 | I am aware of how my everyday life impacts life on earth, even far away. | | | | | |
| 5 | I want my life experiences to be environmentally-friendly. | | | | | |
| 6 | Whenever possible, I reduce pollution to help protect ecosystems. | | | | | |
| 7 | I urge my peers not to litter or make other actions that lead to pollution. | | | | | |

**Name:**

| **Age section (15+)** | | I am at the beginning of my journey | I am on my path and I started a project or activity | I understand the issues, participate in activities and projects and promote the solution to the issues | **My personal GOALS**<br><br>I can choose an issue I want to impact with positive actions | **My Activities**<br><br>Define an activity or project (personal or with my team/patrol) |
|---|---|---|---|---|---|---|
| | | (√ or X) | | | Write notes to start your Champions for Nature Challenge journey | |
| **Healthy planet** | | | | | | |
| 1 | I understand direct and indirect impacts of my lifestyle – what I eat, what I wear, what chemicals I use, on ecosystems, and learn ways to and learn ways to reduce the impact (to zero) | | | | | |
| 2 | I want to reduce the impact of my lifestyle on the production of pollutants. | | | | | |
| 3 | I protect others from the effects of pollution through my personal habits and actions in the community. | | | | | |
| 4 | I am organising events that actively address the pollution of water and land ecosystems. | | | | | |
| 5 | I am consciously reducing waste production in my life, and in my school or workplace. | | | | | |
| 6 | I organise campaigns to reduce pollution. | | | | | |

# Plastic audit quiz

**Audit quiz: 10 compulsory questions before you start**

After assessing your competencies, please take the following 10 quick questions to audit your plastic usage in your personal life. At the end of your Tide Turners Plastic Challenge journey, you can come back to this form and check how your personal practice and opinion around the use of plastic changed.

**Name:**

**Age section:** 7-10 11-14 15+

| | | | | |
|---|---|---|---|---|
| 1 | In the past month, I have avoided eating at places that serve food with single-use plastic cutlery. | YES | NO | NOT SURE |
| 2 | In the past month, I have used single-use plastic bags. | YES | NO | NOT SURE |
| 3 | John gets his household supplies in a plastic bag. Do you think this is right? | NO | YES | I DON'T KNOW |
| 4 | Sheila drinks tea in a plastic cup. Is this a good idea? | NO | YES | I DON'T KNOW |
| 5 | I like to drink soda with a plastic straw. | YES | NO | NOT SURE |
| 6 | People view single-use plastic as a good thing. Do you share that view? | DISAGREE | AGREE | NOT SURE |
| 7 | I can change the way my friends and family use plastics in their everyday lives by talking to them about the issues around plastic. | DISAGREE | AGREE | NOT SURE |
| 8 | Sarah uses paper and cloth bags. Can you easily find paper or cloth bags or are you able to make a bag yourself? | YES | NO | NOT SURE |
| 9 | Are there any plastic recyclers in your area? | YES | NO | I DON'T KNOW |
| 10 | Do you think it is possible to manage without single-use plastic in our lives? | YES | NO | I DON'T KNOW |

**Send your quiz response to: unenvironment-yea@un.org and on scout.org as an attachment with your project report**

# Get Hands on

## Activities to develop your competencies

This is a sample of activities and topics that young people and adults can use to agree on to achieve the first phase "Be aware". It is optional to use the following topics and activities. You can also develop your own activities  but it must follow the competencies mentioned above. Tide Turners Plastic Challenge implementation manual.

**Note:** The content of the following activities and other resources related to the challenge are adapted from the original Tide Turners Plastic Challenge Toolkit to the Earth Tribe competencies & learning process and the scout context.

| Healthy Planet<br>**Preventing and Recovering water and land Ecosystems from pollution** | | |
|---|---|---|
| **7 to 10** | **11 to 14** | **15 and above** |
| **Activity :** Audit your Plastic Habit | **Activity:** Audit your Plastic Habit | **Activity:** Audit your Plastic Habit |
| **Activity :** Movie Night | **Activity:** Identify alternatives to plastic | **Activity:** Litter, Why does it matter |
| **Activity:** Play to kill the ocean | **Activity:** Needs and Wants | **Activity:** Litter Blitz |
| **Activity:** Bottle Cap Mosaic Art & Craft | **Activity:** When do they degrade | **Activity:** Regulating the use of plastics |
| **Activity:** Plastic Beginnings (plastic then & now) | **Activity:** Bottle planters | **Activity:** Making a Poster on Marine Pollution |
| **Activity:** Plastic Resolution | **Activity:** Changing Minds | **Activity:** Audit your Plastic Habit |
| **Activity:** Upcycling Art | **Activity:** Biggest Plastic Footprint | |
| **Activity:** Learning By Doing | **Activity:** Segregation at Source | |
| | **Activity:** Poster Campaign | |
| | **Activity:** Changing Minds | |
| | **Activity:** Biggest Plastic Footprint | |

## How we align our activities with SDGs.

The following activities are aligned with the educational objectives for Champions for nature. They also contribute for you to develop the 8 key competencies for sustainable development. with the learning objectives that in the long term will help young people to develop the competencies for sustainable development. The alignment of education for sustainable development can be done through:

Sustainable development key competencies - They are cross-cutting key competencies for achieving all SDGs. They allow young people to engage constructively and responsibly with today's world. Competencies describe the specific attributes individuals need for action and self-organization in various complex contexts and situations.

### The SDGs key competencies are the following:

- **Systems thinking competency:** the ability to recognize and understand relationships; to analyse complex systems; to think of how systems are embedded within different domains and different scales; and to deal with uncertainty
- **Anticipatory competency:** the ability to understand and evaluate multiple futures – possible, probable and desirable; to create one's own visions for the future; to apply the precautionary principle; to assess the consequences of actions; and to deal with risks and changes.
- **Normative competency:** the ability to understand and reflect on the norms and values that underlie one's actions; and to negotiate sustainability values, principles, goals, and targets, in a context of conflicts of interests and trade-offs, uncertain knowledge and contradictions.
- **Strategic competency:** the abilities to collectively develop and implement innovative actions that further sustainability at the local level and further afield.
- **Collaboration competency:** the abilities to learn from others; to understand and respect the needs, perspectives and actions of others (empathy); to understand, relate to and be sensitive to others (empathic leadership); to deal with conflicts in a group; and to facilitate collaborative and participatory problem solving.
- **Critical thinking competency:** the ability to question norms,

practices and opinions; to reflect on one's own values, perceptions and actions; and to take a position in the sustainability discourse.

- **Self-awareness competency:** the ability to reflect on one's own role in the local community and (global) society; to continually evaluate and further motivate one's actions; and to deal with one's feelings and desires.
- **Integrated problem-solving competency:** the overarching ability to apply different problem-solving frameworks to complex sustainability problems and develop viable, inclusive and equitable solution options that promote sustainable development, integrating the above- mentioned competences and the Earth Tribe Learning Objectives.

The sustainable development key competencies will help you to have a better observation to evaluate the knowledge, skills and attitude the young person developed through the learning journe.

Get to know more about Education For Sustainable Development through: https://unesdoc.unesco.org/ark:/48223/pf0000247444

Time

Age Range

Rescources and Material

Key competencies

# Activities

15 - 20 minutes

7 - 14

No material needed

- Critical thinking
- Self Awareness


## Audit your plastic habit (mandatory activity)

**Summary:**

This activity will get you thinking about how you can reduce your use of plastics in your daily life and start getting others to do the same.

**Activity development:**

1. Does plastic rule your life or is your plastic footprint microscopic? Or are you somewhere in the middle? Take action now to cut down on your plastic usage.
2. The facilitator should introduce the concept of the three Rs. That means reducing, reusing or replacing your plastic items.
3. The facilitator should bring different questions to the participants to start the conversation about single use plastic and how to find alternatives for our daily use. The following points are a sample of questions and personal takeaways/resolutions for the participants:
    - Cut 3 single-use plastic items from your life
    - What alternatives to plastic did you end up using?

60 minutes

7 - 10

- Two movies:
  - Plastic Pollution: How Humans are Turning the World into Plastic
  - Is this the ocean of the future?
- TV Screen or mobile phone
- Internet connection

- Anticipate the Future
- Reflect on norms and values


# Movie night

**Summary:**

A fun way for the participants to learn more about the plastics problem

**Activity development:**

To learn more about the plastic problem, the facilitator will introduce some educational videos to the participants! Here are a couple worth checking out:

- **Plastic Pollution:** How Humans are Turning the World into Plastic – an excellent film by Clean Seas that has been seen by 3 million people (https://www.youtube.com/watch?v=RS7IzU2VJIQ)

  *Note: please use the subtitle for more language options.*

- **Is this the ocean of the future?** – a short but moving look at how plastic is affecting our oceans (https://www.youtube.com/watch?v=Yomf5pBN8dY)

The participants can watch one of them and then include a personal message about why they think it's important. The facilitator will lead a discussion about what they learn from the videos with the group after everyone has watched it.

The participants can show both movies to their parents and friends and present their views and those of their friends/family in their next meeting

20 minutes

7 - 10

- Dumb Ways to Kill Oceans
- computer or mobile phone
- Internet connection

- Anticipate the Future
- Reflect on norms and values
- Critical thinking


# Play to Kill the Ocean

**Summary:**

Dumb Ways to Kill Oceans is a small but mighty mini-game highlighting some of the biggest challenges faced by our oceans. Get inspired by the game and make small changes to your own lives that can help make our oceans and our planet a healthier one for everyone.

**Activity development:**

1. Play the computer game Dumb Ways to Kill the Ocean and get a certificate for your hard work! Play the game and invite three of your friends to also play the game
2. The facilitator can guide the participants through additional educational resources on the website to learn more about the plastic pollution.

20 - 30 minutes

7 - 10

- Plastic bottle caps in various colours and sizes
- Cardboards from used cartons
- Box cutter
- Glue
- Optional: pencil, paper, permanent markers

- Reflect on norms and values
- Collaboration


# Bottle cap mosaic Art & Craft[2]

**Summary:**

This activity encourages young people to understand about reuse and recycling through activity

**Activity development:**

The caps of plastic bottles come in varieties of colours and sizes. These caps can be used creatively in art and craft activities in your friends or Scout meeting.

1. The facilitator organizes young people into small groups and provides each group with cardboard. Participants can then sketch a design on the cardboard. They can arrange the bottle caps around the sketch and glue them on to the cardboard.
2. They can use the coloured markers to highlight or create details.
3. Ask each group to put their bottle cap mosaic on display.
4. **Evaluation;** Have participants understand the concept of reuse? Can they come up with other creative ideas for the reuse of plastic waste?

→ *The adult will ask young people to collect as many plastic bottle caps as they can from their family and neighbours and bring them to their meeting*

2. Towards Responsible Use of Plastics Reduce, Reuse, Recycle Centre for Environment Education, India A Manual for Schools

20 - 30 minutes

7 - 10

- Black board
- Chalk
- Survey sheet
- List of plastic products

- Systems thinking
- Reflect on norms and values
- Self Awareness


# Plastics beginnings (Plastics - Then & Now)[3]

**Summary:**

This activity helps young people understand that much of the plastic use, which is treated as essential, is a relatively recent phenomenon

**Activity development:**

Many children, as they grow up, take the current use and disposal of plastic for granted. Milk in pouches, use and throw pens, polythene carry bags to bring purchases in, are a part of how they have seen it happening around them. It can often be a discovery for them when they come to know that this was not the case during their parents' and grandparents' time.

3. Towards Responsible Use of Plastics Reduce, Reuse, Recycle Centre for Environment Education, India A Manual for Schools

Plastics, because of their very nature, have over the years become an intrinsic part of life. Young people need to understand why people have shifted to plastics and whether there are still some alternatives which are possible to use.

1. The facilitator should write the names of commonly used disposable plastic items at home on the black board. Each participant should be asked to give one name and once everyone has contributed, anyone can add more names if needed.
2. The facilitator should share the Home Survey Sheet with the participants and explain how they should use it.
3. The participants should fill up the survey sheet after discussion with their grand-parents, parents and siblings. The list they made in the class can be used as a reference to discuss with the respondents to understand whether the items in it were the same in each generation or a different item was used for the same purpose.
4. The facilitator should discuss the timeline of these items in class as to when the use of a particular disposable plastic item began and in which generation.
5. The facilitator should discuss in groups the possible reasons for why plastic items replaced natural products or have become such an intrinsic part of life.
6. **Conclusion:** At the end of this activity, the participants will be able to understand that plastic use is relatively a new phenomenon and many of the naturally degradable products used earlier that were replaced by non-biodegradable disposable plastic products can still be used in the place of plastics.
7. **Evaluation:** Discuss the alternatives and check which one of the participants think can be easily replaced

**Survey Sheet (answer Yes or No and if No, name/describe the alternatives used)**

| Name of the product | Either of the parents used it when they same ages | If no, what was the alternative they had? | Either of the grandparents used it when they were same age as | If no, what was the alternative they had? |
|---|---|---|---|---|
| Plastic bags | | | | |
| Chips and snack pouches | | | | |
| Disposable diapers | | | | |
| Disposable ballpoint pens | | | | |
| Disposable cups | | | | |
| Disposable shaving razor | | | | |
| Disposable water bottles/soft drink bottles | | | | |
| Plastic shampoo/oil bottles | | | | |
| Plastic toothbrush Plastic buttons | | | | |
| Band-aid | | | | |
| Earbuds | | | | |
| Styrofoam (Thermocol) | | | | |
| Plastic straw | | | | |
| Tetra pak | | | | |
| Milk pouches | | | | |
| Disposable plates and spoons | | | | |
| Plastic toys | | | | |
| Balloons | | | | |
| Plastic flip-flops | | | | |
| Plastic wraps for books and notebooks | | | | |
| Products with plastic packaging | | | | |
| Rubber bands | | | | |

15- 20 minutes

7 - 10

No material needed

- Reflect on norms and values
- Collaboration
- Self Awareness


## Plastic resolution

**Activity development:**

- With your group, talk through how you are taking action to reduce your plastic habits and come up with three things that you can do collectively to make a difference.
- Share photos and ideas and then re-group to check on your progress in two weeks' time. How much have you reduced your plastic use?
- Some ideas to get your wheels turning: Ditch plastic straws, bring reusable bags with you everywhere and bring your own containers when your order takes off.
- Maintain the group and stick to its goals for three weeks

30 -40 minutes

7 - 10

- [12 Inspiring Works of Art on Plastic Pollution by Plastic Pollution Coalition]
- Trash items (ex: cans, plastic, straws,etc)

- Reflect on norms and values
- Collaboration


# Upcycling Art

**Activity development:**

Discover your creative side! Collect as much discarded plastic as you can and try to make art or a craft out of it. Can you make a cool collage? A bracelet?

- In your meeting or event, put up segregations trash cans, Segregate and pick some of your household plastic waste before it reaches the trash bin
- Make a piece of art out of discarded plastics and share it on social media using the hashtag
- Here are some ideas to get your wheels turning: [12 Inspiring Works of Art on Plastic Pollution]

15 - 20 minutes

7 - 10

- Old t-shirt – The thicker the fabric, the sturdier the bag
- Sharp scissors, preferably fabric scissors
- Washable marker (optional)

- Reflect on norms and values
- Critical thinking


## Learning by doing[4]

**Summary:**

This activity encourages young people to understand about reuse and recycling through activity

**Activity development:**

Who does the grocery shopping in your home? Place a sign together with reusable bags in the car or right by the door, so whoever does the shopping will have them on hand.

- Follow these steps to make a reusable shopping bag from a t-shirt: How To Make A No Sew T-Shirt Tote Bag In 10 Minutes
- Make the bag and use it the next time you go shopping with your family.

4. How to make a tote bag https://mommypotamus.com/no-sew-t-shirt-tote-bag-tutorial/

15 - 20 minutes

11 - 14

- Blackboard and chalk

- Systems thinking
- Self Awareness


# Identifying alternatives to plastics[5]

**Summary:**

This activity helps young people to reduce the use of plastic products by finding better alternatives for disposable plastics

**Activity development:**

This activity focuses on identifying alternatives to the most commonly used disposable plastic products while making young people aware of the harm caused by disposable plastics.

1. The facilitator should introduce the concept of disposable plastic.
2. Following the introduction of the concept, the facilitator should ask the participants to name any disposable plastic products they can think of. One of the participants can be given the responsibility of writing the names of these products on the board.
3. Initially each participant should be asked to name only one product so that each participant has a chance to give her/his contribution to the list on the board.
4. After all the answers are up on the board, the facilitator should initiate a discussion on whether and why any of the products need to be removed from the list.

5. Towards Responsible Use of Plastics Reduce, Reuse, Recycle Centre for Environment Education, India A Manual for Schools

5. The facilitator should begin the second round. Take each item on the list and ask any of the participants to suggest an alternative to that product and explain why the alternative is a better option. If the group agrees that this product is indeed a better alternative, then erase that product from the list. Go through the entire list in this way.
6. The facilitator should check all the products have disappeared from the list? If not then how many still remain?
7. The young people could then be asked to think it over, in their own time and see if they can come up with an alternative to those products for which no alternative could be found.
8. **Conclusion:** Participants should be able to understand that while plastics are extensively used, it is possible to find alternatives for the most of them. In the case of those products for which alternatives have not yet been found, the participants should be reminded that such products need to be disposed of appropriately in the bin which is marked for dry waste.
9. **Evaluation:** Assess if every participant has thoroughly understood the concept of disposable plastics and the fact that alternatives to them are available.

30 minutes

11 - 14

- Observation sheet for household consumption Reflection
- Reflection and Action Worksheet

- Critical thinking
- Reflect on norms and values
- Self Awareness


# Needs & Wants[6]

**Summary:**

This activity helps young people conclude that use of certain disposable plastic products can be avoided.

**Activity development:**

Most cities and rural areas are developing rapidly; hence there is also a rapid growth in consumption of resources. While this is especially happening in our cities, villages too are increasingly following the same path.

However, the ease and convenient availability of resources leads to haphazard consumption, especially of disposable plastics. This activity aims to differentiate between the needs and wants of disposable plastic products, some of which may not be necessary but are bought anyway.

1. The facilitator should introduce participants to the concept of sustainable consumption and its importance.
2. The facilitator should discuss with the participants the difference between necessary, long term plastic products and disposable ones.
3. The facilitator should ask each participant to prepare a personal household consumption checklist using the exemplar sheet provided.
4. In groups, the young people should then prepare a consolidated list using their personal consumption checklists.

6. Towards Responsible Use of Plastics Reduce, Reuse, Recycle Centre for Environment Education, India A Manual for Schools

5. The facilitator should ask the groups to share their consumption checklist with another group of young people in the meeting.
6. Each group will come forward and share their list.
7. The facilitator should discuss how choice of products, packaging, usage, etc contribute to the differences in the lists arrived.
8. Following the discussion, the facilitator should provide the Reflection and Action Worksheet to each participant.
9. The facilitator should randomly ask a few participants to share what they have written in these sheets with the other young people.
10. **Conclusion:** young people would understand their household consumption patterns of plastic products and products with plastic packaging. They would conclude that certain disposable plastics are completely avoidable.
11. **Evaluation:** young people can be asked to suggest alternatives to disposable plastics use.

## Task 1: Household plastic consumption checklist

Fill in the observation sheet to note your household plastic consumption pattern (over a period of a week)

| **Date of purchase** | **Type of items purchased** | | | |
|---|---|---|---|---|
| | Food and Drinks | Toys/Games | Stationery | Others |
| **11/11/19 (for example)** | Packet of cookies | Blocks (Plastic) | Ball-point pen | Disposable razors |
| | Bottled water – plastic bottle | Laminated board games with plastic dice | Pencil box | Photo frames |

## Task 2: Reflection and Action Worksheet - Think about the following

Refer to Task 1, think about the different plastic products mentioned in the table below and fill in with appropriate actions that you can take

| Product or does it have to be disposed of? | Can the packaging/ product be used again | If disposed, how? | Could I do without this?<br>Yes/No | Is there a better alternative? Mention it |
|---|---|---|---|---|
| Bottled water – plastic bottle | Disposed | Separately from biodegradable waste | Yes | Install a water purifier |

15 - 20 minutes

11 - 14

- Waste materials produced by young people (plastic, paper, food scraps, glass, metal items like pins etc)
- small shovel
- metal scale
- Gloves
- pen
- record book/ worksheet

- Systems thinking
- Anticipate the Future


# When do they degrade?[7]

**Summary:**

This activity helps young people to understand what degradation and the time different materials are taken to degrade.

**Activity development:**

Different materials in the environment take different periods of time to degrade. Some materials like plastics, thermocol, etc. do not biodegrade and continue to be in the environment. Materials such as wood, grass and food scraps can break down in the presence of microbes and transform into useful compounds. Plastics on the other hand cannot be degraded by microbes and these generally end up in landfills or water bodies, thus polluting them. Despite the problems associated with its disposal, we cannot avoid using plastics because of their use in a variety of areas. It is, therefore, essential that we use and dispose of these responsibly.

**Before you begin**

Introduce the term biodegradable and nonbiodegradable materials in the meeting.

Explain how degradation takes place and mention about the agents of degradation in nature.

Explain about the role of bacterial and other microbes in decomposition.

Ask the young people to help in digging out a small pit in the garden area of the young people Den, about 8-10 inches in depth. Also give a copy of the worksheet provided below to every group to enter their observations.

7. Towards Responsible Use of Plastics Reduce, Reuse, Recycle Centre for Environment Education, India A Manual for Schools

1. The facilitator asks the participants to place the different kinds of waste collected in the pit. Close the pit once there is a variety of waste in it.
2. Young people should dig out the pit after a week to see the condition of each waste item they have buried and enter their observations on the worksheet. They should continue the cycle for 12 weeks and note the gradual changes (if any), they observe in each item buried. They should also record changes in terms of quantity, colour, texture, smell, etc.
3. At the end of the experiment, young people should make a chart presenting their observations and recordings of: what has degraded, which material has not and the gradual changes they have observed in the items, if any.
4. **Conclusion:** young people understand that degradation is a natural process and different materials take different periods of time to degrade.
5. **Evaluation:** Discuss which material are biodegradable based on the experiment

| **Week** | **Observation** |
|---|---|
| **Week number (1,2,3,...etc)** | **Paper:** |
| | **Food:** |
| | **Metal:** |
| | **Glass:** |
| | **Others (specify)** |

20- 30 minutes

11 - 14

- Plastic water bottle (1 ltr size)
- Scissors
- Seeds
- Soils
- string

- Critical thinking
- Problem Solving


# Bottle Planters[8]

**Summary:**

This activity helps to introduce young people to creative ways of using packaging waste

**Activity development:**

Soft drink PET bottles come in different shapes and sizes. These bottles can be used creatively to create planters as an art and craft activity.

- Placing the bottle horizontally, the young person can cut out a rectangular section from one side of the plastic bottle. The bottle should have its cap on. The following steps are suggested:
  - Fill the bottle with soil.
  - Plant seeds of flowers or vegetables/ herbs in the soil. (Use what locally grown in your area)
  - Use the string to hang the bottle in an appropriate place with maximum sunlight.
  - Water the plant to see them grow.
  - The facilitator should encourage the young person to share pictures of the reusable bottle planters in the class.
- **Evaluation:** Did the young people understand the concept of reusing a plastic product? Did they come up with more ideas for the reuse of plastic waste?

8. Towards Responsible Use of Plastics Reduce, Reuse, Recycle Centre for Environment Education, India A Manual for Schools

30 minutes

11 - 14

- Your own slideshow

- Systems thinking
- Reflect on norms and values
- Critical thinking
- Self Awareness


# Changing minds

**Activity development:**

Do you have a sibling who starts yawning when you talk about plastic pollution? A cousin who flagrantly trashes plastic instead of recycling? A friend who uses far more single-use plastic than necessary?

- Prepare a slideshow for them, with facts and photos about the problems with plastics.
- Afterwards, ask them if they learned anything new or if your presentation made them care a bit more.
- If not, what would it take for them for them to change their ways? If yes, ask them to commit to one or two lifestyle changes that will make a difference.
- Follow up in a months' time to see if they have kept their promises.
- **Evaluation:** What have you learned about making people change their behaviors? Will they share your presentation with others?
- **Steps:**
  - Carry out the slideshow
  - Get at least one person said they learned something new due to the slideshow

20 - 25 minutes

11 - 14

- Your own slideshow

- Reflect on norms and values
- Collaboration
- Self Awareness


# Biggest plastic footprints?

**Activity development:**

- Organize a "plastic face-off" between your two teams during an event or between your group.
- Everyone in both teams will save the plastic they use over the Camp duration or during the meeting of the week from plastic shopping bags to water bottles to food packaging.
- Have each team create a "mountain" of everything collected and, at the end of the week, do a comparison with a league table. Which mountain is bigger? What are the main items found in each? Follow up with a discussion.
- Repeat this in one months' time.

**Some debriefing questions for participants**

- Did the activity make everyone think more about reducing their use of plastic?
- Did the final amount of plastic collected shock them?
- How about a second showdown to see which team manages to reduce their plastic use more and produce a smaller mountain?

20 - 30 minutes

11 - 14

- Three Dustbins
- Paper sheets
- Pen

- Systems thinking
- Reflect on norms and values
- Critical thinking
- Self Awareness


# Segregation at Source

**Summary:**

This activity helps young people understand the importance of waste segregation and learn to categorize and dispose of waste correctly.

**Activity development:**

*(facilitator tip *do it according to your municipality waste collection system*)*

Segregation of waste must begin at home, as it is critical to its recycling and disposal. Lack of segregation, collection and transportation of unsegregated mixed waste to the landfills has an impact on the environment.

When we segregate waste, it reduces the amount of waste that reaches landfills, thereby taking up less space. Pollution of air and water can be considerably reduced when hazardous waste is separated and treated separately.

The rules also specify the colour coding for the bins which should be used for Dry waste, Wet waste and Hazardous waste. It is essential that the waste is put in the correct colour bins so that it can be appropriately dealt with. You can also align the colours and type of waste according to your municipality waste collection system, to enhance understanding and practicality

**Before you begin**

The facilitator should prepare paper sheets with names of different degradable and non-degradable waste as given: vegetables, fruits, flowers, leaves from garden, plastics, paper, glass, tetra packs, aluminium foil, pencil shavings, band aid, pins, metal clips, chip packet, chocolate wrapper, polythene bag, plastic water bottle, plastic soft drink bottle, cotton U pins, used battery, etc.

The facilitator may add a few more names if required to ensure that each participant has one sheet. Some of the names can be repeated.

1. The facilitator should introduce the topic to the meeting and show them the three coloured bins and explain which kind of waste will go into each of the bins.
2. After the topic has been introduced, the facilitator should ask each participant to pick one sheet from the pile of sheets placed in a box.
3. The facilitator should then ask the young people to put their sheets in the appropriate bins (Blue labelled for Dry Waste, Green labelled for Wet Waste and Red/Black labelled for hazardous).
4. The young people identify the right bins for each product in the sheet and put them accordingly in the bin.
5. **Conclusion:** After the activity has been completed the facilitator should check the sheets thrown into the dustbins and in case of a mistake, the facilitator should make the participants aware about the composition of that particular product and in which dustbin it should have been thrown into.
6. **Evaluation:** The young people would have understood the concept of segregation and the categories into which it needs to be segregated

**Materials**

Three Dustbins: (Blue for dry waste, Green for wet waste and Red/Black for hazardous waste)

Paper sheets with names of different degradable and non-degradable waste as given: vegetables, fruits, flowers, leaves from garden, plastics, paper, glass, tetra packs, aluminium foil, pencil shavings, band aid, pins, metal clips, chip packet, chocolate wrapper, polythene bag, plastic water bottle, plastic soft drink bottle, cotton U pins, used battery, etc.

15 - 20 minutes

11 - 14

- Sheets
- Art supplies

- Systems thinking
- Reflect on norms and values


# Poster campaign

**Activity development:**

Get creative and demonstrate hands-on leadership with a poster.

- Use your artwork to get people to think about changing their single-use plastic habits and keep the neighborhood clean.
- Use the #CleanSeas hashtag to share your signs with us;
- and – if it's legal – see if you can put up your signs in places where plastic pollution is at its worst.
- Put the poster in your young people den

Open

15 and above

- Clean Seas guide

- Reflect on norms and values
- Self Awareness


# Audit your plastic habit and find out where your waste goes

**Activity development:**

As a group, with friends or your class at school, use the Clean Seas guide to audit your plastic habits and take action to reduce your plastic usage. Can you—both individually and collectively—manage a 50 percent reduction of plastic use? This will mean reducing, reusing or replacing your plastic items. Create a blog or Instagram campaign to highlight your progress and share it with the wider community

- Start auditing your plastic and continue to do so for a month
- Get 5 additional people to audit their plastic for a month
- Manage to reduce your plastic usage by 50 percent after a month

flexible

15 and above

- None

- Systems thinking
- Critical thinking
- Reflect on norms and values


## Liter... Why does it Matter?[9]

**Summary:**

This activity helps the participants to understand:

- the impact of littering
- the Correlation of plastic pollution with littering

**Activity development:**

Littering is one of the biggest environmental as well as a social challenge faced today. It is important for young pteople to know about the impacts of littering as plastic is present in every product that is bought. This activity will help young people understand how litter contributes to the problem of plastic pollution.

The participants need to be shown a short film about littering and the impact of plastic pollution mainly on wildlife and marine organisms. They should also be briefed about how littering contributes to plastic pollution.

9. Towards Responsible Use of Plastics Reduce, Reuse, Recycle Centre for Environment Education, India A Manual for Schools

1. The facilitator should facilitate a discussion with young people about the problems associated with littering and how it leads to plastic pollution.
2. The participants then should be asked to monitor littering behavior of people. They could choose to monitor littering on roads, in commercial places, in open places and parks or in schools.
3. The participants select a suitable spot which they think might have a littering problem.
4. The facilitator should guide the participants to "observe people's behavior of littering" at that spot. Some indicators for observation could include:
    - Are there waste bins in this spot?
    - Whether people throw waste in the waste bins?
    - The type of material littered most frequently?
    - Was the littered material consumed by any animal?
5. Following this, participants should track how littering leads to a set of problems which ultimately contribute to polluting the land, water and atmosphere.
6. Based on their observations and background research, the participants should write their views in the form of an essay depicting the correlation between littering and plastic pollution.
7. The participants will be able to co-relate how littering behavior contributes to the problem of plastic pollution. Discuss the impacts of littering

15 min to understand the survey

3 days to do the survey, also analyze results

40 min to discuss the results

15 and above

- A sheet to record the data
- Survey form

- Systems thinking
- Critical thinking
- Reflect on norms and values


# Litter Blitz

**Summary:**

This activity helps the participants to identify the causes of trigger littering and perspective of people towards litter and how it affects them.

**Activity development:**

Litter is an environmental as well as a social challenge. It is important to know the reason behind this behavior. This activity will give an idea about littering behavior to the participants. This questionnaire can help young people know about certain challenges associated with the habit of littering.

1. The facilitator should divide the young people into groups so that each group would have 4-5 members.
2. The facilitator should ask the groups to select a spot and conduct a local survey. The young people can also do it individually at public spots near their respective homes.
3. Each group will survey 2-3 spots and interview people of different age groups. They may
4. interview around 10 people at each spot.
5. The participants should compile their individual results with their group and make a data sheet.
6. The groups should then compare their data with the other groups
7. **Conclusion:** The data that is generated as a result will help young people understand how peoples' attitude differs when it comes to littering. The participants will also learn some triggering factors due to which people litter.
8. **Evaluation:** Discuss the triggering factors due to which people litter

## SURVEY FORM FOR INTERVIEWS AT LITTER SPOTS

Name of the person being interviewed (optional):

Age:

*Ask the following questions and note the responses:*

**Do you think that there is a problem associated with litter?**

- ☐ The problem has become much more
- ☐ It is the same as before
- ☐ There never was a problem

**Have you ever littered?**

- ☐ Yes
- ☐ No
- ☐ If yes, why?
  - ◦ It was convenient.
  - ◦ Didn't think it was bad.
  - ◦ Didn't care.
  - ◦ It was by accident.

**If there was a law against Littering, would you still litter**

- ☐ Yes
- ☐ No
- ☐ Couldn't be bothered

**Why do you think people litter?**

- ☐ Inadequate dustbins at public spaces.
- ☐ It's culturally imbibed
- ☐ Dirty public spaces trigger people to litter more

**Whose responsibility do you think it is to keep the public spaces clean?**

- □ People
- □ Ragpickers
- □ Municipal Corporation

**What do you think are the major problems with litter? (this question can have more than 1 option as answer)**

- □ It looks unaesthetic
- □ It stinks
- □ It causes environmental pollution
- □ It might be consumed by stray animals.

**Do you think plastic pollution can be controlled if people stop littering?**

- □ Yes
- □ No
- □ Partially

**Will you carry your trash with you to throw in a waste bin if you don't find one immediately?**

- □ Yes
- □ No
- □ If no, why?

30 - 40 minutes

15 and above

- A sheet to record the data
- Survey form

- Systems thinking
- Collaboration
- Critical thinking
- Reflect on norms and values


# Regulating the use of plastics

**Summary:**

This activity helps young people understand how laws are made in a parliamentary process and how different points of view need to be solicited and incorporated before it is approved in the legislature.

**Activity development:**

Laws play an important role in regulating the use and disposal of plastics. For instance, India has regulations regarding the use of plastic bags below 50 microns. This activity is designed to create a discussion in class about developing a set of rules for the school that will help reduce the use of plastics and its appropriate disposal.

**Before you begin**

The facilitator can start by explaining the importance of legislation and current rules and regulations for plastic waste disposal. young people can then be asked to draft their own laws regarding the use and disposal of plastics.

- Choose a number of young people within your team, to lead the discussion. Their task will be to prepare a draft set of rules and legislation for the use and disposal of plastics in the school/scout headquarter/sports club.
- Meanwhile, the rest of the young people can select their representative to play the role of a speaker who will conduct the proceedings.
- The speaker should then invite discussion on the draft rules. All young people must be encouraged to argue and suggest modifications to the draft.

- The group that has drafted the legislation can also present their suggestions.
- Finally, the class can vote on the corrected draft.
- In case of no agreement, item wise votes can be taken to decide which of the suggestions should form a part of the school/scout headquarter/sports club rules.
- The approved draft as the recommended set of rules which govern the use and disposal of plastics for the school/scout headquarter/ sports club can then be handed over to the principal.
- **Conclusion:** The young people will derive a clear understanding of the parliamentary process of lawmaking.
- **Evaluation:**

  It can focus on the quality of the discussion:

  1. Whether the different points of views are being articulated and received and how?
  2. How these views are being integrated towards a consensus?

  The following questions such can be used for discussion:

  1. Is it possible to get unanimity on the plastic policy?
  2. Is there any part of the suggested rules that might affect some participants unfairly? If yes, how can the rules be modified to avoid doing so?

*This activity will also help the young people to comprehend the need for and impact of laws and regulations on the plastic use and disposal.*

30 - 40 minutes

20 minutes

- Paper
- sketch pens/pencils to make a poster

- Systems thinking
- Reflect on norms and values


# Making a Poster on Marine Pollution

**Summary:**

This activity helps the participants to communicate awareness through a creative exercise about plastic pollution in the oceans.

**Activity development:**

While plastic pollution affects all life on the planet, the situation in the ocean is particularly bad. This is because the ocean is the final sink for all the plastics that flow into the rivers and eventually into the sea. If access to the internet is available, there is considerable information available online about marine pollution along with graphic images of the damage it is doing to our oceans and marine life. This activity aims to get young people to make a poster about marine pollution. Two options are given. If your place is near the coast, or any water body like a river or lake, a field trip is also suggested. The activity can otherwise be done through an internet search, or consulting reference books, articles or materials which can then be discussed.

To help communicate awareness through a creative exercise about plastic

Before you begin

The facilitator can introduce the issue of marine pollution and ask young people how and why it happens, whether they know the extent of it and the possible harm it causes.

The facilitator can then instruct them about the activity and get them started on developing a poster that will create awareness on this issue.

- If the internet is available, the facilitator should ask the participants to search for images and short films or alternatively go to the library to review books and magazines for ideas.
- The facilitator can then get the young people to form small groups in which they can discuss the issue they want to take to design and create their poster.
- **Conclusion:** Display the posters at young people den/ scout headquarter and get other participants to evaluate how effective the posters were in communicating their message
- **Evaluation:** The content of the poster and design will help in understanding the key issues identified by the young people

*Use the #CleanSeas hashtag to share your signs with us on [www.scout.org](http://www.scout.org)*

# 4 Plan your Next Move

Once you are informed about the plastic issue and how it affects your community and ecosystems, then it's a good time to plan your community service project to Cooperate and Act. You can use our Community service project guidelines to have a better understanding of how to plan, execute, and evaluate your project.

**The following are some suggestions to inspire you while planning for your project:**

# Cooperate

## Organise an assembly on the plastic issue

**Age section: 7 -10**

With your friends, with the help of an adult, assemble your friends and among yourselves select a speaker to speak on plastic pollution

## Take it to local governments or policy makers

**Age section: 7 -10**

With friends, identify a key issue that you think the local politician or even minister would consider taking action to resolve. Then, (politely) raise this directly with them, pointing out the consequences and support for action on this issue. To pass this section, you will need to have written a persuasive letter, explored a meeting or call with the individual, and tried your best to influence them about the alternative. Make sure you take a selfie with the politician too!

# Advocate

Age section: 11 - 14

- Observe how your community deals with plastic. For example, could waste collection be improved? Should schools be doing more to raise awareness?
- Write a polite letter to your headteacher, official within your community or local politician and express your concern about plastic waste in the community.
- Remember, your letter makes a difference (e.g., addressing the improvement of the recycling facilities)
- Make suggestions based on your observations about how to reduce waste in your area.
- Ask for their support with specific issues, like placing more recycling bins around town or helping to organize a cleanup. If they respond, offer to go and meet them and discuss this face-to-face to see what you can do together.

## Take it to your local governments or policy makers

**Age section: 11 and above**

With friends, identify a key issue that you think the local politician or even minister would consider taking action to resolve. Then, (politely) raise this directly with them, pointing out the consequences and support for action on this issue. To pass this section, you will need to have written a persuasive letter, explored a meeting or call with the individual, and tried your best to influence them about the alternative. Make sure you take a selfie with the politician too!

# ACT

## Picking up litter

**Age section: 11 - 14**

- Spend one week picking up plastic you find littering your school or community.
- Take a photo or make a note to keep track of all that you find.
- How much of what you found could have been recycled instead? At the end of the week, compile your findings and send them to your local municipality or school with suggestions for how to improve things. Should they provide more trash and recycling bins? Should they have street signs telling people which items can be recycled and why it matters? Should they have signs reminding people not to litter?

**Note:**

Please exercise safety and wear protective gloves – not plastic though (smiley face) -when doing this project

Younger participants may need adult supervision for this activity, to avoid picking up hazardous objects

## Plastic surprises.

**Age section: 15 and above**

Work with your friends for this one. Everyone researches one item that most people don't realize contains plastic. For example, did you know cigarette filters contain tiny plastic fibers? In fact, in a recent global survey, cigarettes were the most common type of plastic waste found in the environment. Other sneaky plastics can be found in chewing gum, clothing, glitter, and tea bags. Have everyone bring their example to school and get permission to set up an "exhibition" with your collected items in a prominent space, along with information about why it matters.

You can use Clean Seas resources to get to know more about plastic items. You can use other reference material to support your facilitation and the information you provide during the exhibit.

## Private sector plastic persuasion

**Age section: 15 and above**

Select 3 companies / shops that you like and regularly visit. Ask them to reconsider the plastic that they sell or provide on their premises and discuss whether alternatives could be used instead. Think about how you can best influence them. For example, have other businesses scored goodwill points by making this change? Do customers prefer sustainable alternatives to plastic? Is plastic pollution hurting tourism and therefore business in your region? Let them know of available alternatives that they could consider. To pass this section, one company should have changed their policy.

## Waste management revolution

**Age section: 15 and above**

Create a plastic collection scheme at school or in your community. If there is no waste management in your community / locality, raise this concern with your local official and work with partners and private sector collaborators to create a solution. To be truly successful, this challenge should benefit at least 100+ people in an area which would see a new community mechanism to reduce plastic waste in their area, with someone to come and collect it and take it away. While working on this, make sure you know what is collectable and has value, and what can't be reused. As a next step, you and your team could set up an environmental club at school and make sure the waste management scheme continues. Take photos to capture the difference before and after you launched the project.

## Commit to a river or beach for at least 1 month:

**Age section: 15 and above**

Identify one location that is near you that has a major plastic / waste problem and commit to keep it clean for at least one month. Bring your friends along, as well as a local

politician and the media, to join your cleanup and showcase its success.

# 5 After your journey in Tide Turners Plastic Challenge

## Now tell us your story:

The next step is to consolidate what you've learned from this whole experience and write a short story that helps us understand what change you made in your life, and others. Consider questions such as, what were the main challenges? What part was most fun? What did you realize that you didn't know before? What were you able to teach others about? Where do you think you had the biggest impact?

Here are some suggestions for how to get your ideas across:

1. **Write** an essay
2. **Make** a video
3. **Do** a photojournalism piece (https://sdgs.scout.org/ , scout.org )

# Pledge

Let's all make a commitment to making the planet happier and healthier, helping our animal friends, and improving our own health and quality of life. Let's kick single-use plastic to the curb (not literally)!

**I WILL**

Always carry a reusable bag and say 'no' to single-use shopping bags.

Carry my own refillable bottle

Educate my friends and family about the issues related to single-use plastics

Convince my local shopkeepers/ vendors and communities to say no to single-use plastic

SCOUTS®
Creating a Better World


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