

Training Tomorrow's Environmental Analysts

Vocational Training Programme for assisting
in Mastering IoT and Sensor Technologies in
Namibia, Rwanda and Zimbabwe

Presented by: William Domenico Tullio | APRO Formazione
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Integrating Sustainability and Environmental Education in existing courses



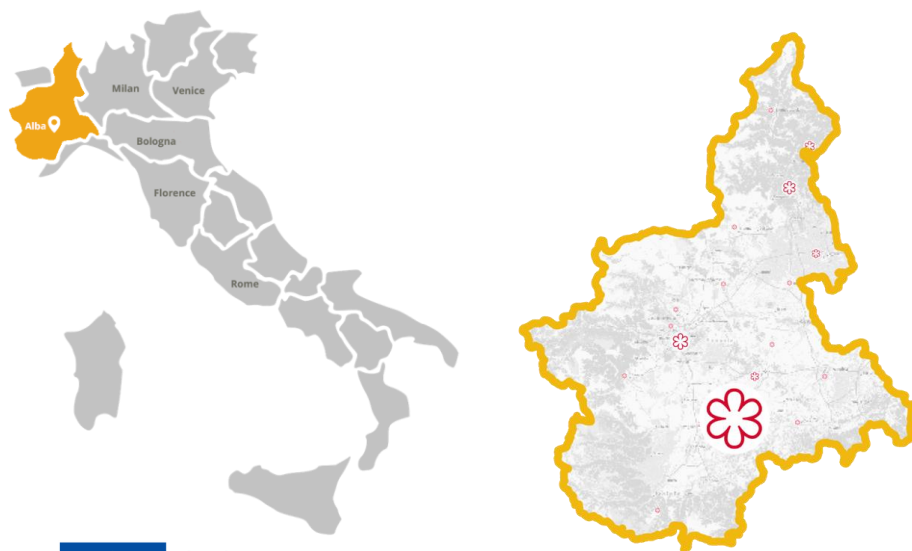
What we do in our School

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Our School – APRO Formazione



The
courses of
study
offered by
our VET
School



Tourism & Gastronomy



Tech



Phygital



Beauty & Wellness

Sustainability and Environmental education in our courses



IN OUR VET CORSES



INSIDE OUR FACILITIES



IN SCHOOL PROJECTS



ACTIONS IN OUR CITY AND TERRITORY



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In VET curricula:

Environmental Education and Sustainability are **cross-cutting topics** in all school subjects

In particular, every year, in all classes, during Science classes we have :

- **10 hours** on Sustainability;
- **10 hours** on Environmental Education.

Lectures are supported by a variety of **practical activities** and **outdoor education**.



Topics:

- Environmental parameters and assessment of quality
- Sustainability: milestones, principles, and major international agreements
- Human impact: courses and consequences
- Natural resources and raw materials
- Waste and Energy management
- Social Sustainability
- Biodiversity

Knowledge

Anything that can be learned through teachers, books and other media.

Abilities

All the practical things that you do.

Competences

It is the ability to apply knowledge and skills in everyday life, including work.



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Apro Decalogue for a Sustainable School

At the beginning of the year, we produce the **GREEN DECALOGUE** in each class. 10 simple rules that are defined together with a participatory approach. For instance:

- 1) **Reduce energy** consumption and promote the use of renewable energy
- 2) Promote **sustainable mobility** for students and employees
- 3) Promote rational use of the **water** resource
- 4) Promote sustainable **food**
- 5) **Reduce waste** and carry out separate waste collection
- 6) Promote the choice of sustainable materials
- 7) Promote **social sustainability**
- 8) Promote **economic sustainability**
- 9) Promote a culture of respect and care for the **environment and nature**
- 10) Share and disseminate **good practices** about caring for the common good.



Some examples of what we do during lessons



Microplastics in our life

What are microplastics? Why are they dangerous for our health? How can we prevent pollution?

Microplastics:



Ecological Footprint

Assess the impact of our actions on the planet by calculating our personal Ecological Footprint

www.footprintcalculator.org

Which actions have a higher impact

What we can change



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Inside the building of our school

**FIRST OF ALL
PROMOTE
«THE RULE OF
4 Rs»**
-REDUCE
-REUSE
-REPAIR
-RECYCLE

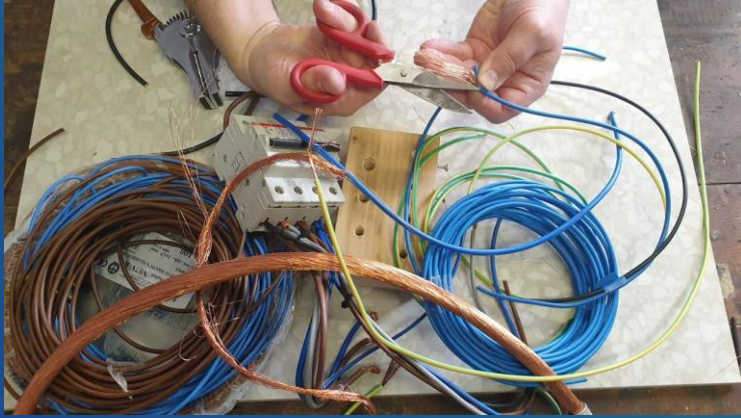


Waste collection

- Paper
- Metals
- Plastics
- Organic waste
- Glass
- Unsorted waste

We sort waste according to the materials it is made of, so each raw material is sent to its own path to be recycled and transformed into something new

We try to raise awareness on recycling through workshops



Recovering copper from used power cables

Recycled paper production lab



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.. And compost lab

Production of **compost** from food waste that comes from our cooking classes



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Inside our facilities



Water management

To reduce the environmental impact of drinking water by:

- Removing all bottled water dispensers.
- Giving to each student and member of staff a free, reusable, and stainless steel water bottle.
- Providing many drinking water dispensers throughout the facilities.



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Energy management

- Low-energy light bulbs or LED
- Promotion of actions that reduce energy consumption (no stand-by mode for PCs, use of natural light instead of energy)
- Winter temperature in the school set at 19°C



● In our school, we have two **outdoor classrooms** and nearby a **park** where we often carry out our lessons or Environmental Education activities



Learning trails: we organize walks around our school and we talk about landscape, environmental protection and beauty



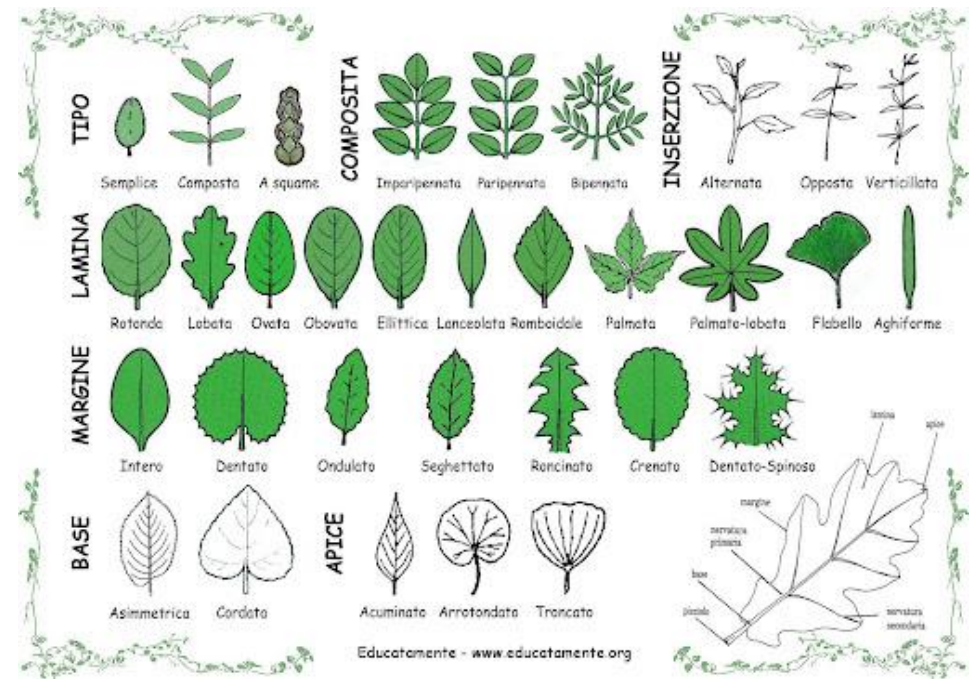
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Some examples of outdoor activities:

Landscape reading activities



How to recognize the species of trees through the shape and features of their leaves



Air quality assessment observing lichens



Outdoor training for teachers



Teachers training on sustainability-related issues and methodologies:

- Outdoor education
- Education based on a sensory and emotional approach
- Climate justice
- Outdoor team-building activity
- Eco-anxiety
- Environmental communication



School projects



**Vertical
hydroponic
garden on
school
rooftop for
salad
production**



**Design and realization
of a smartphone-
charging bicycle**



**Ideation of a
prototype of a solar
panel to heat water**



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School projects

Dinners open to the public with a Sustainable Menu



 **SUSTAIN-IT**

School field trips to nearby natural reserves



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Promotion of sustainable mobility with bicycle transportation

Apro supports sustainable mobility through:

- **Parking area** for bicycles and scooters inside the school facilities.
- Communication campaigns on local and sustainable mobility
- “ **Let’s fix it!**”: 10-hour bike repair course for mechanic classes and a bike-repairing workshop open to students, staff, and citizens
- Promoting, when available, incentives to use public transportation and purchase sustainable vehicles



Workshop “Let’s fix it” on bicycle repair

Actions in our city and territory



- Volunteering in environmental days to plant trees.
- Waste collection in public places
- Training days with the Civil Protection Department.



Teaching sustainability - Events & Meetings

- Meetings with authors (writers, scientists, and science communicators on sustainability-related books and seminars)
- Participation to Alba's "Sustainability Expo" challenge for schools



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Our Project Partners



Thank you

