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TRAINING AND RECYCLING CONTAINERS

SPOROCEAN

outdoor PORTOFINO

WHAT'S "WASTE"?

Directive 2008/98/EC of the European Union:

- "Any substance or object which the holder discards or intends or is required to discard." The directive includes various categories of waste, such as hazardous waste, packaging waste, organic waste, etc

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United Nations Environment Programme (UNEP):

- "Waste is a byproduct of human activities, which poses a threat to the environment and human health if not properly managed. It includes solid, liquid, and gaseous substances that are discarded after use."

HOW WASTE CAN REACH THE SEA ?

Improper Waste Disposal: Littering, dumping, or poor waste management systems allow trash to be carried by wind and rain into rivers, which then flow into the ocean.

Stormwater Runoff: Rainwater that runs off streets and land picks up waste, especially plastic, and transports it through drainage systems or directly into bodies of water.

Fishing and Maritime Activities: Abandoned or lost fishing nets, gear, and other marine debris from ships and boats often end up in the ocean.

Sewage Systems: In some areas, untreated or poorly treated wastewater, which contains plastic and other waste, is discharged directly into rivers and oceans.

Natural Disasters: Events like hurricanes and floods can sweep large amounts of waste into the sea from coastal areas.

WASTE CYCLE

The process through which waste is managed, reduced, and reused.

RECYCLE FOR THE LIFE CYCLE

Production:
Waste is generated from human activities (household, industrial, commercial).

Collection:
Waste is collected and separated by type (organic, plastic, paper, glass, residual) through recycling or waste sorting systems.

Transportation:
The collected waste is transported to treatment or disposal facilities.
Treatment

Recycling:
Recyclable materials (glass, plastic, paper, metal) are processed and transformed into new products.

Composting:
Organic waste is turned into compost, a natural fertilizer.

Disposal:
Residual waste that cannot be recycled or recovered is sent to controlled landfills or incinerators.

Energy recovery:
Some non-recyclable waste is incinerated to generate energy.

The ultimate goal of the waste cycle is to minimize environmental impact through recycling, reusing, and reducing the amount of waste produced.

RECYCLING

Recycling was born not because of an economic problem or a lack of resources but because of an awareness that creates environmental issues. The first recycling centre dates back to 1972 pensylvenia plastic waste recycle mill

Global Waste Generation: The United Nations Environment Programme (UNEP) forecasts global waste production to rise from 2.1 billion tonnes in 2023 to 3.8 billion tonnes by 2050.
The cost of managing waste globally was estimated at $252 billion in 2020, but when considering the hidden costs from pollution, health issues, and climate impacts, the figure reaches $361 billion. Without decisive action, this could nearly double to $640.3 billion by 2050(

Recycling Efforts: Separate waste collection surpassed 65%, but there's still a significant difference between the waste collected and effectively recycled. Energy recovery from waste, particularly through anaerobic digestion and incineration, is also part of Italy's strategy

Plastic Pollution: Mismanaged waste, especially plastics, continues to pollute oceans and ecosystems. Approximately 8 million tonnes of plastic waste end up in oceans annually, affecting marine life and water quality. Improving recycling and adopting a circular economy approach could mitigate this crisis

RECYCLING IS IMPORTANT

1. **Waste Reduction**: Recycling reduces the waste sent to landfills and incinerators, helping prevent soil and air pollution.

2. Conservation of Natural Resources: Recycling materials like paper, glass, metal, and plastic conserves natural resources such as trees, minerals, and oil, reducing the need to extract and produce new raw materials.

3. Energy Savings: Making new products from recycled materials requires less energy than producing them from virgin materials. This reduces energy consumption and greenhouse gas emissions.

4.Environmental Protection: Recycling reduces the need for resource extraction, processing, and transportation, which often harm the environment. It also helps prevent waste from polluting rivers and oceans by keeping it out of landfills.

5. Sustainability: Recycling is a key part of the circular economy, a production and consumption model aimed at keeping products, materials, and resources in use for as long as possible, minimizing waste.

6. Job Creation: The recycling industry creates jobs in collecting, sorting, and processing materials.
In summary, recycling helps preserve the planet for future generations by promoting a more responsible use of resources.
para,grafo

The impact of waste, particularly plastic, in oceans is a major global environmental issue

Marine Life;

Entanglement: Animals like turtles, seals, and seabirds often get entangled in discarded fishing nets, plastic bags, and other debris, which can lead to injury or death.

Ingestion: Marine creatures frequently mistake plastic waste for food. Ingesting plastic can block their digestive tracts, causing starvation or death. Around 90% of seabirds and a growing number of fish species are found with plastic in their stomachs.

Microplastics: Larger plastic items break down into microplastics, which can be ingested by small fish and plankton, entering the food chain and potentially impacting human health as well.

Economic Impact:
Tourism: Polluted beaches and water bodies deter tourism, leading to economic losses for coastal communities that rely on this industry.
Fisheries: Marine pollution affects fish populations, reducing catch potential for commercial and small-scale fisheries, thereby impacting food security and livelihoods.

Global Plastic Waste Figures:
Every year, approximately 8 million tons of plastic waste end up in the oceans. This amounts to one garbage truck of plastic every minute. If no action is taken, this could increase to four garbage trucks per minute by 2050

Pollution:
Chemical Pollution: Plastics and other waste materials release harmful chemicals into the water. These chemicals can affect water quality and pose a threat to marine organisms, including coral reefs, which are vital to marine ecosystems.
Habitat Destruction: Debris can physically damage sensitive habitats such as coral reefs and mangroves. For example, plastic bags can cover coral, blocking sunlight and inhibiting photosynthesis

WHERE TO DISPOSE OF WASTE?

Plastic (Plastic Bin)
Recyclable: Bottles, containers, plastic bags, packaging.
Non-recyclable: Plastic plates and cutlery, hard plastic objects (if not specified otherwise).

Organic (Organic Bin)
Recyclable: Food scraps, fruit and vegetable peels, coffee grounds.
Non-recyclable: Non-food compostable items (e.g., compostable plastic, if not accepted in your local system).

Glass (Glass Bin)
Recyclable: Bottles, jars.
Non-recyclable: Mirrors, ceramics, crystal (should be taken to recycling centers or special waste collection points).

Paper (Paper Bin)
Recyclable: Newspapers, magazines, cardboard boxes, paper bags.
Non-recyclable: Greasy paper, laminated paper, used tissues (should go in organic or general waste).

General Waste
(Non-recyclable/General Waste Bin)
Non-recyclable items: Pens, toothbrushes, laminated paper.

Hazardous or Special Waste
Disposal: Batteries, electronics (e-waste), expired medications, and used oils must be taken to special waste collection centers or designated drop-off points.

*Labels: Always check the packaging labels, which often provide disposal instructions.
*Waste Disposal Apps: Many cities offer apps that help identify the correct bin for every type of waste

These steps help ensure effective waste management and contribute to environmental sustainability.

PACKAGING SYMBOLS GUIDE

Understanding the symbols on packaging helps to identify the material and where it should be disposed of:

PET (Polyethylene Terephthalate): Common in plastic bottles. Recyclable in plastic bins.

PE (Polyethylene): Found in plastic bags and containers. Recyclable in plastic bins.

PP (Polypropylene): Used in bottle caps and food trays. Recyclable in plastic bins.

PS (Polystyrene): Used for food trays, foam packaging. May or may not be recyclable depending on your local rules.

PVC (Polyvinyl Chloride): Used in pipes and plastic films. Often not recyclable.

C/PAP (Composite/Carton): Like Tetrapak, it may be recyclable depending on your local recycling program.

F**E** (Steel) or **ALU** (Aluminum): Used in cans and metal packaging. Recyclable in metal bins.

CA (Cardboard): Paper and cardboard are recyclable in paper bins.

Waste training and brief explanation of the significance of the marine ecosystem, threats, and ways to protect it.

Beach and Sea Clean Up, collecting Macro Waste

Correct sorting of waste and cataloguing of waste involve learning how to recognize materials

Understanding the waste cycle is crucial because of its harmful impact on the environment. Pollution caused by waste can severely damage the delicate balance of our ecosystem.

Collecting microplastic

Understanding the fragility of the ecosystem

Now that we know how to recognize microplastics from plankton, we now know what they are, where they come from, and how they transform and how they harm us and the environment we must try to protect the sea, creating a legend of waste for everyone.

METTIAMOLO NEL POSTO GIUSTO!

CA

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PI

1 PET — Polietilene treftalato

2 HDPE — Polietilene ad alta densità

3 PVC — Cloruro di polivinile

4 LDPE — Politilene a bassa densità

5 PP — Polipropilene

6 PS — Polistirolo

- **PS6**

7,5 - 14 anni

1000 L - inquinamento fisico e chimico

450 anni

Macroplastiche >25mm
Microplastiche <5mm
Nanoplastiche <1µm

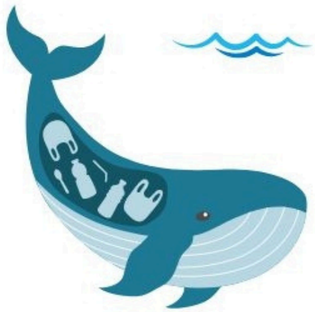
5 - 10 anni

600 anni

Reti fantasma: continuano a pescare dopo essere state abbandonate

4 anni

Doppio Pericolo per uccelli marini, foche, tartarughe



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“The average person produces about 2 kilograms of trash each day. That adds up to a mountain of waste that can take hundreds of years to decompose in landfill, We must try to separate waste well when we dispose of it in order to reduce pollution”

“Turn off lights and electronics when not in use, and reduce your energy usage”

“Reusing involves finding ways to use items multiple times or in different ways instead of throwing them away after a single use. This helps to minimize the amount of waste sent to landfills and conserve energy and resources required for manufacturing”

“Purchase products made from recycled materials and choose these options whenever possible”

We engage younger people in activities that helped them understand why recycling is important, what happens if everyone leaves their waste around, and how they can recycle properly. Where they have to throw out their waste. Through this challenge, kids will discover the journey of waste—from what happens when it's carelessly thrown away to how it can be transformed into something new when recycled.