



PLASTOS EDUCATION PROGRAMME

Know Your Plastic. Own Your Future.



Module 1: Plastic Pollution



Module 2: Plastic Recycling



Module 3: Plastic Separation



Module 4: Green Careers



MODULE 1

What Is Plastic Pollution?

Causes • Effects • Diseases

Let's Think Together...



What happens after someone throws this away?

What Is Plastic Pollution?

Plastic pollution happens when people throw plastic on the ground instead of putting it in a bin. The plastic can end up in our streets, gutters, rivers, and oceans, making our environment dirty and unsafe for people and animals.

Single-Use Plastics



Sachet water bags, polythene shopping bags, takeaway containers, drinking straws — used once, thrown away

Industrial & Household Waste



Poor Waste Management



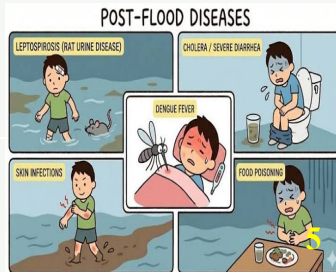


The Effects: What Happens to Our Environment?

The Plastic Journey

How Plastic Littering Creates Disease and Loss of Income

1. **Plastic littering** - Plastic is thrown away carelessly
↓
2. **Blocked drains** - It blocks drainage channels
↓
3. **Flooding** - Streets and homes flood after rains
↓
4. **Dirty water** - Flood water mixes with clean water; mosquitoes breed in the water
↓
5. **Disease** - Disease spreads through the community
↓
6. **Hospital bills** - Money saved for other purposes is redirected
↓
7. **Loss of income** - Families and state runs at a loss



One plastic bottle littered leads to a collective loss

Let's Map Our Community

1. Where do plastics accumulate in this community?
2. Which drains get blocked?
3. Which areas are affected by the flooding?
4. Where do mosquitoes breed?



FROM OPEN-AIR BURNING TO FLOODING: THE CHAIN REACTION

Our actions on the ground affect the skies and our communities.

1 OPEN-AIR BURNING

People burn plastic, trash, tires and other waste.



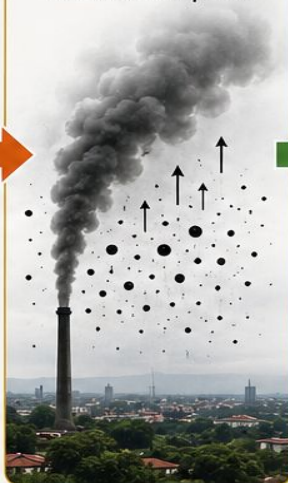
This releases:

- Carbon dioxide (CO₂)
- Black carbon (soot)
- Toxic gases
- Fine particles (PM2.5 and PM10)

These pollutants can travel high into the atmosphere.

2 POLLUTION RISES

Smoke, soot and tiny particles rise high into the atmosphere.



3 POLLUTION INTERACTS WITH CLOUDS

Particles in the air help water droplets form. This can:



- Change cloud formation
- Make clouds larger and denser
- Alter rainfall patterns
- Increase the likelihood of intense rainfall

4 HEAVY RAIN FALLS OVER CITIES

When storms develop, these polluted clouds can release large amounts of rain in a short period.



5 PLASTIC WASTE MAKES FLOODING WORSE

Improperly discarded plastic waste:



- Blocks drains and gutters
- Clogs rivers and waterways
- Prevents water from flowing away

6 RESULT: SEVERE FLOODING

Water has nowhere to go.



Homes, schools, roads and communities are damaged. Lives and livelihoods are at risk.

THE SOLUTION IS IN OUR HANDS



Stop open-air burning of waste.



Dispose of plastic waste responsibly.



Keep drains and waterways clean and clear.



Support recycling initiatives and community education.

PLASTOS
TURNING PLASTIC INTO PURPOSE



Cleaner air. Clear drains. Stronger communities. A better future for Ghana.





Diseases Caused by Plastic Pollution

How Plastic Creates Disease

1. Plastic is not thrown away carelessly
2. It collects stagnant (still) water
3. Mosquitoes breed in the water
4. Mosquitoes bite people
5. Disease spreads through the community

One sachet bag can breed hundreds of mosquitoes.



Malaria

Anopheles mosquito breeding in plastic water



Dengue & Yellow Fever

Aedes mosquito in small plastic containers



Cholera & Typhoid

Contaminated water from blocked, overflowing drains



Respiratory Disease

Toxic fumes from burning plastic waste



Cancer & Hormonal Disorders

Microplastics in food, fish, and drinking water

DISEASE SPOTLIGHT



Malaria

600,000+

deaths globally per year

30–40%

of Ghana hospital admissions

1 sachet

can breed hundreds of mosquitoes

Why is this bad?

- Malaria can kill an adult within 24 hours without treatment. Children under 5 are most at risk.
- Malaria cases in Ghana exceeded 5.3 million in 2025 (Ghana Broadcasting Corporation, 2026).
- Ghana remains one of the countries with the highest malaria burden globally (Severe Malaria Observatory, n.d.).
- Symptoms include high fever, chills, and vomiting. Discarded plastic containers — buckets, sachets, basins — sitting outside collect rainwater and become mosquito nurseries.

★ Every piece of plastic removed from the environment is a life potentially saved.

Together We Can Make a Difference!

Every Hero Has a Job

Household Actions

1. Put rubbish in the bin.
2. Separate plastic for recycling.
3. Never throw plastic into gutters.
4. Reuse items when possible
5. Encourage your family to recycle.

School Actions

1. Form environmental clubs
2. Become a Recycling Leader.
3. Use the recycling bins.
4. Help keep your school clean.
5. Teach your friends about recycling.

Community Actions

1. Join community clean-ups
2. Help keep streets and drains clean
3. Use community recycling bins
4. Teach others about recycling
5. Work together to keep Ghana beautiful

MODULE 2

What is Plastic Recycling

Recycling: Giving Plastic A Second Chance



Recycling is the process of collecting used materials, cleaning them up, and turning them into **completely new products** instead of throwing them away in the bin.



Plastic Chairs

Strong and colorful furniture made from recycled bits.



Laundry Baskets

Perfect for organizing your home with clean plastic.



Sturdy Buckets

Great for play or work, made from old containers.

The Recycling Adventure

1. Collected

Trucks pick up your recycling bins from school or home.



2. Sorted

Smart machines separate different types of plastic.



3. Processed

Bottles are washed and shredded into tiny flakes.



4. Pellets

Plastic is melted into small "nurdles" or pellets.



5. New Product

Pellets are molded into brand new useful items!





Reduce • Reuse • Recycle

Three ways to be an Earth Hero!



KNOW YOUR PLASTIC. COLLECT IT RIGHT.



MODULE 2

Different plastics. Different uses in Ghana. Better sorting. Better recycling. Cleaner communities.

	 PET Polyethylene Terephthalate	 HDPE High-Density Polyethylene	 PVC Polyvinyl Chloride	 LDPE Low-Density Polyethylene	 PP Polypropylene	 PS Polystyrene	 OTHER Other Plastics (PC, ABS, Nylon, etc.)
Common uses in Ghana	Water bottles, soft drink bottles, juice bottles, cooking oil bottles	Detergent and soap bottles, milk jugs, shampoo bottles, buckets, jerrycans	Water pipes, electrical conduits, window profiles, some packaging films	Sachet water bags, plastic bags, bread bags, cling film	Food containers, yoghurt cups, rice bags, drinking straws, margarine tubs	Foam plates, take-away boxes, disposable cups, egg trays	Water cooler bottles, nylon, toys, basins, mobile phone parts, mixed plastics
Examples you see every day	 e.g. Voltic, Coke, Fanlce, Frytol	 e.g. Omo, Key Soap, Dano milk, kegs, bowls	 e.g. Pipes, cable conduits, sachet packaging (some)	 e.g. Sachet water (Pure Water, Perla), market bags, bread bags	 e.g. Yoghurt cups, Gino, Blue Band tubs, rice bags, straws	 e.g. Chop bars containers, foam cups, egg trays	 e.g. Cool water bottles, nylon items, toys, mixed items
How to collect (What you should do)	 COLLECT Widely recyclable. Keep clean, empty and dry. Remove caps and labels if possible.	 COLLECT Widely recyclable. Keep clean, empty and dry. Remove caps if possible.	 COLLECT WITH CARE Not widely recycled in Ghana. Collect separately. Do not mix with other recyclables.	 COLLECT Recyclable at specialized facilities. Keep clean and dry. Do not bag recyclables.	 COLLECT Widely recyclable. Keep clean, empty and dry.	 LIMIT / SEPARATE Not widely recycled in Ghana. Collect separately. Avoid contamination.	 LIMIT / SEPARATE Not easily recycled. Collect separately. Check with local facilities.



BE A RESPONSIBLE COLLECTOR.

- Sort by plastic type if you can.
- Keep plastics clean, empty and dry.
- Do not mix with food waste or other trash.

WHY IT MATTERS IN GHANA



TOGETHER, WE CAN BUILD A CLEANER GHANA.



Small actions today.
Big impact tomorrow.

1 2
3 4

How to Read the Recycling Triangle

1



Pick up any plastic item

2



Turn it over and look at the bottom

3



Find the recycling triangle symbol

4



Read the number inside the triangle

5

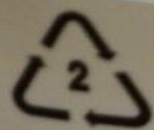


Sort it into the correct coloured bag!

The number inside the  triangle is called the Resin Identification Code — it identifies what TYPE of plastic the item is made from.



PO Box 10417
Beverly Hills, CA 90213
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D - 35037 Marburg
#45777-000-21



200 ml e

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Types You Can Recycle #1 #2 #4 #5

#1

PET · BLUE BAG

*Polyethylene
Terephthalate*

Common in Ghana:

- Voltic & Everpure bottles
- Coke, Fanta, Sprite bottles
- Juice & energy drink bottles
- Cooking oil containers

HIGH VALUE ★★★★★

#2

HDPE · GREEN BAG

*High-Density
Polyethylene*

Common in Ghana:

- Jerry cans & fuel containers
- Omo, Key Soap bottles
- Milk & yoghurt containers
- Hard plastic buckets

HIGH DEMAND ★★★★★

#4

LDPE · ORANGE BAG

*Low-Density
Polyethylene*

Common in Ghana:

- Sachet water bags
- Carrier / shopping bags
- Bread & produce bags

MEDIUM VALUE ★★★

#5

PP · PURPLE BAG

Polypropylene

Common in Ghana:

- Fan Yogo cups
- Margarine & Blue Band tubs
- Bottle caps & straws
- Medicine bottles

HIGH DEMAND ★★★★★

MODULE 3

Plastic Is **NOT** the Enemy

Job Growth • Markets • Opportunities



Job Growth

Create jobs.
Build skills.



Markets

Strong demand.
Local to global.



Opportunities

Innovate.
Build the future.



WHY PLASTIC IS REMARKABLE

Smartly used plastic improves our lives every day.



Lightweight = Less Fuel

PET plastic weighs 16x less than glass. This means less fuel burned transporting drinks, food, and medicine across Ghana — a real climate and cost benefit.



Sterile = Lives Saved

Medical equipment, IV bags, syringes, and sterile packaging depend on plastic. Without it, infection rates in hospitals would skyrocket.



Food Security

Plastic packaging prevents food spoilage — protecting up to 40% more food from farm to market. In Ghana, this means more food reaches families safely.





Career Opportunities in Ghana's Plastic Economy



Community Collector



Machine Operator



Plastic Lumber & Construction



Plastics Engineer



Sustainability Officer



Entrepreneur / Founder





What Can YOU Do Starting Today?

1



Check the number on every plastic item before throwing it away

2



Use separate bags or bins for different plastic types at home

3



Ask your school to set up a Plastos plastic collection bin

4



Teach your family and friends — knowledge spreads faster than plastic!

Small actions, taken by every student in this room, add up to a cleaner Ghana.

Thank you for learning with us.

**Together,
we build a
cleaner Ghana.**



PLASTOS (NITAPLASTOS ENTERPRISE) · KEEVAH FOUNDATION

Dome Pillar 2, Greater Accra, Ghana · Building community-led plastic collection & sustainable livelihoods