

MANAGING DRY LEAVES



A PRACTICAL HANDBOOK FOR SCHOOLS

Simple steps to turn dry leaves into nutrient-rich compost within your school, for your garden, for a greener tomorrow.



**USE WHAT
YOU ALREADY HAVE**
Make the most of your
existing resources.



MULCH OR COMPOST
Choose the right method
for your space.



NOURISH YOUR GARDEN
Healthy soil, healthy plants,
healthy learning.



**LEARN, PARTICIPATE,
SUSTAIN**
Build responsibility and
sustain the cycle.



DRY LEAVES



COMPOST



GARDEN



NEW LIFE

Small actions in schools.
Big change in our city.



MISSION CITY CHAKRA

Dry Leaves to Soil

A Practical Handbook for Schools

Mulch • Compost • Return to Soil

The starting point

Do not begin by buying a composter. Begin by looking at what your school already has: trees, leaves, soil, pits, garden beds, old wire or mesh, water, people and time.

A school does not need a complicated waste-management system.
It needs a simple, locally circular way to return leaves to the soil.

School Sustainability Project Library

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1. START WITH WHAT YOU ALREADY HAVE

Every school campus is different. Some have large trees and abundant leaf litter. Some have very little open soil. Some already have pits, garden beds or unused corners. Some have housekeeping staff who collect leaves in a particular way. The best system is the one that fits the campus—not a standard composter bought for every school.

Before you buy anything, walk the campus.

Spend 20–30 minutes observing where leaves fall, where they are currently collected, where soil is available, where water is accessible, and which existing structures can be reused.

Campus Walk: What to Look For

Look for	Why it matters
Where leaves fall	Leaves can often be managed close to where they naturally accumulate.
Open soil / garden beds	These areas may be suitable for mulching or in-situ decomposition.
Existing pits or unused corners	They may become composting spaces without new construction.
Old wire mesh / cages / fencing	Can be adapted into a porous leaf-composting enclosure.
Water availability	Dry-leaf composting needs moisture; easy access makes maintenance practical.
Existing garden or plantation	Provides a destination for the finished compost.
Housekeeping routine	The system should fit the people who already collect and move the leaves.
Peak leaf-fall period	Helps the school plan space and workload before the largest quantities arrive.

A useful question

What can we use from the school itself before we spend money?

2. WHY DRY LEAVES BELONG TO THE SOIL

In a natural landscape, fallen leaves are not treated as waste. They form a layer over the soil, protecting it from intense sunlight, helping retain moisture and gradually decomposing. During the rains, microorganisms break them down and nutrients return to the soil.

The forest does not need a waste collection vehicle to remove its leaves. The leaf falls, the leaf decomposes, and the nutrients become available again. This is the circular system that schools can imitate.

The Soil-to-Soil Principle

What grows from the soil can return to the soil. Our job in the city is not to reproduce a forest exactly, but to create practical systems that come close to this cycle.

Why do trees shed leaves?

- Leaf fall is part of the natural cycle of trees and plants.
- Seasonal leaf fall helps trees respond to changes in heat and water availability.
- The fallen leaves form a protective layer over soil.
- As leaves decompose, their organic matter and nutrients return to the soil.

What changes in a city?

Urban campuses often have paved surfaces, busy walkways and limited open soil. We cannot always leave leaves where they fall or wait for the monsoon to complete the process. We therefore modify the natural process: mulch where possible, and compost where collection is necessary.

3. FIRST ASK: DO YOU REALLY NEED TO COMPOST?

Composting is useful, but it should not automatically be the first solution. If leaves can safely remain on soil around trees or in garden beds, leaving them there is often the simplest and most natural option.

If your school has...	Consider...	Why
Soil around trees / garden beds	MULCHING	Leaves remain where they can protect soil and decompose naturally.
A suitable pit or open area	COMPOSTING	Leaves can be gathered in one convenient place and allowed to decompose.
Very little space but surplus leaves	DONATING / SHARING	Another garden, school or grower may need the material.
A mix of leaves and suitable green material	COMPOSTING	Moisture and nitrogen-rich material can support decomposition.

The three-way approach

MULCH where leaves can stay • COMPOST where they need to be gathered • DONATE when there is a genuine surplus.

For most schools, start with the simplest workable combination.

A campus may use more than one method. For example, leaves under trees can be mulched, while leaves from paths and play areas can be collected into a composting pit. This is often more practical than trying to send every leaf to one central unit.

4. MULCHING: THE SIMPLEST CIRCULAR SYSTEM

Mulching means spreading dry leaves over exposed soil around trees, shrubs or garden beds. It is one of the closest urban adaptations of what happens naturally in a forest.

How to do it

1. Identify soil around trees, shrubs or garden beds where leaves will not obstruct movement.
2. Collect leaves from nearby paved areas or other places where they cannot remain.
3. Spread a loose layer of leaves over the soil.
4. Allow the leaves to remain and gradually decompose.
5. Add more leaves as they break down.

Benefits

- Protects soil from direct sunlight.
- Helps retain soil moisture.
- Reduces dust and exposed bare soil.
- Returns organic matter to the soil.
- Can reduce dependence on purchased soil amendments.
- Requires very little infrastructure or maintenance.

A simple school rule

If a leaf can safely stay on soil, there is often no reason to collect it.

5. COMPOSTING DRY LEAVES

Where leaves need to be collected—because they fall on paved areas, walkways, play spaces or other frequently used parts of the campus—composting provides a practical circular alternative.

Composting is simply a controlled version of nature.

We collect leaves in a convenient place, maintain enough moisture and allow microorganisms to break the material down.

Three essentials: Aeration, Moisture and Time

Factor	What to do
Aeration	Use a porous pit, enclosure or pile. Avoid creating a sealed, waterlogged heap.
Moisture	Leaves should be moist, not dripping wet. During dry periods, water enough to moisten the material.
Time	Dry leaves are carbon-rich and may decompose slowly, especially when used alone. Patience is part of the system.

Do we need a 'culture'?

A starter material such as a handful of healthy soil or mature compost can introduce microorganisms, but a special commercial culture need not be a prerequisite. Microorganisms are already present in soil, leaves and the surrounding environment.

If a school chooses to use a compost starter, use it as a way to support the process—not as something the school must purchase every week.

6. CHOOSE A SYSTEM THAT FITS YOUR CAMPUS

There is no single correct composting structure. Earlier school plans developed through campus assessments showed several workable possibilities: an existing pit, a simple porous enclosure, or a wire-mesh cage whose lower portion is in contact with soil.

Option A — Existing Pit

- Use an existing pit if it is in a suitable location and safe to access.
- Fill it with dry leaves from the surrounding campus.
- Maintain enough moisture during dry periods.
- Allow the leaves to decompose at their own pace.
- Harvest mature compost when the material has broken down sufficiently.

Option B — Simple Porous Enclosure

- Use available wire mesh or a similar porous material to create an enclosure.
- Keep the lower portion in contact with soil where practical.
- Allow rainwater to drain rather than creating a waterlogged container.
- Make sure the enclosure is accessible for adding leaves and removing compost.

Option C — Leaf Cage / Composting Cage

A cage made from reused or available wire mesh can be placed on soil, with part of its lower structure secured in the ground. A removable mesh or opening near the bottom can make harvesting easier. This is similar to the school-specific design developed during earlier campus assessments.

Do not copy a structure blindly.

The design should follow the school's space, soil, rainfall, leaf quantity, access and housekeeping routine.

7. SETTING UP THE COMPOSTING SYSTEM

Step 1 — Select the location

- Choose a place that is easy for housekeeping staff to reach.
- Keep it away from high-traffic student areas and places where children may climb or play.
- Choose a location where some moisture can be maintained but water will not stagnate.
- Keep the system reasonably close to the garden or soil where the compost will be used.

Step 2 — Prepare the space

- Clear plastic, metal, glass and other non-compostable material from the area.
- Use existing soil, pits or structures wherever possible.
- Avoid unnecessary construction.

Step 3 — Add the leaves

- Collect only reasonably clean leaf litter.
- Avoid mixing in plastic wrappers, thermocol, stones, glass or other litter.
- Add leaves regularly rather than creating an unmanaged heap across the campus.

Step 4 — Maintain moisture

In the rainy season, the weather may provide sufficient moisture. During dry periods, water the pile or pit enough to keep the leaves moist. If water is unavailable, decomposition will slow down; this is not a failure. The process will resume when moisture returns.

Step 5 — Let nature work

Do not expect instant results. Dry leaves break down gradually. The aim is not to make the fastest possible compost, but to create a system the school can maintain year after year.

8. MAKE IT A SCHOOL SYSTEM, NOT A ONE-PERSON PROJECT

A composting unit can be built in a day. Keeping it functioning for years requires ownership. The Huzurpaga experience shows the value of a motivated principal and a team of teaching and non-teaching staff. Its dry-leaf composting project began in 2019 and continued through the Covid lockdown period; its results encouraged other schools on the campus to adopt the model.

Role	Responsibility
Principal / school leadership	Approve the system, protect continuity and integrate it into school practice.
Staff coordinator	Check that the system is functioning and coordinate with housekeeping.
Housekeeping team	Collect leaves from designated areas and place them in the correct location.
Students / Eco Club	Observe, document and support learning activities; avoid unsafe handling.
Garden team	Use the finished compost and observe changes in soil and plants.
Continuity matters	
Document the location, method, responsibilities and basic routine. The project should survive a change of principal, teacher or housekeeping staff.	

9. INVOLVE STUDENTS — WITHOUT MAKING THEM RESPONSIBLE FOR OPERATIONS

Students do not need to become the people who physically manage the composting system. Their role can be to observe, understand, record and communicate. This turns a maintenance activity into experiential learning.

Simple student activities

- Observe how the colour, texture and volume of leaves change over time.
- Compare a leaf left under a tree with a leaf placed in the composting system.
- Record rainfall and moisture conditions.
- Measure or estimate the quantity of leaves collected during the peak season.
- Observe decomposers such as earthworms and insects where appropriate.
- Document the use of finished compost in the school garden.
- Create a simple 'leaf to soil' display for parents and visitors.

The learning cycle

LEAF → DECOMPOSITION → COMPOST → SOIL → PLANT → LEAF

This is the same principle that underlies Mission City Chakra: design systems so that materials remain useful and outputs become inputs for another process.

10. A PUNE EXAMPLE: HUZURPAGA ENGLISH MEDIUM SCHOOL

Huzurpaga English Medium School, Mangdewadi, Katraj, provides a useful example of how a school can turn a leaf-litter problem into a long-term circular system.

The starting point

The school campus has old-growth trees and therefore a substantial quantity of leaf litter. Principal Priyadarshani Purohit wanted to prevent the leaves from being burnt or treated as garbage. With Brown Leaf, the school developed a dry-leaf composting project that began in 2019. The project survived the Covid lockdown and continued successfully; its results encouraged the other four schools on the campus to adopt the same approach.

What makes the example useful

- The project responded to a real campus problem rather than creating an activity for its own sake.
- The school used the leaves generated on its own premises.
- The system became part of the school's wider sustainability culture.
- Dry-leaf compost was connected to the school's terrace garden.
- The school later explored connecting household Nirmalya with the existing composting system, showing how one circular system can become the foundation for another.

The larger lesson

A principal does not need to solve the city's entire waste problem. A school can start with what its own campus generates, create a visible solution, and then extend its influence.

11. COMMON PROBLEMS — AND SIMPLE RESPONSES

If you notice...	Try...
Leaves are too dry and decomposition is very slow.	Check moisture. Dry leaves need moisture to decompose. Accept that dry-leaf-only composting can be slow.
The pile is too wet or waterlogged.	Improve drainage and aeration. Do not allow standing water.
Plastic and other waste are mixed with leaves.	Improve collection and train the housekeeping team. Use a simple 'Leaves Only' sign.
The school has very little space.	Prioritise mulching. Compost only the leaves that genuinely need to be moved.
There are too many leaves for the available composting space.	Use a combination of mulching, composting and donation/sharing.
Nobody knows who is responsible.	Assign one staff coordinator and document the routine.
The school expects quick results.	Explain that decomposition takes time. Focus on continuity rather than speed.
The composting system is becoming a dumping corner.	Reset the purpose: clean leaf litter only, visible signage, regular review.

12. CLOSE THE LOOP

The project is complete only when the material returns to use. Finished compost can be used in garden beds, around trees, in a kitchen garden or in a butterfly garden. Students should be able to see where the leaves went.

What was once swept away becomes part of the next season's growth.

A simple school cycle

6. Leaves are generated on the campus.
7. Leaves that can remain on soil are mulched.
8. Other clean leaves are collected for composting.
9. The school maintains the composting system with simple, regular care.
10. Compost is returned to the soil and garden.
11. Students observe the process and document the outcome.
12. The school reviews what worked and improves the system for the next leaf-fall season.

Beyond dry leaves

Once a school has successfully created one circular system, it can build the next. Possible next steps include a butterfly garden, Nirmalya composting, paper reuse, kitchen gardening, plastic-free events and community resource-sharing.

Start with one system. Make it work. Then build the next.

The objective is not to create more projects. It is to create systems that continue.

ABOUT MISSION CITY CHAKRA

Mission City Chakra works towards a city designed more like a forest: a system in which resources are used, reused and returned to cycles rather than becoming waste.

Our school programme focuses on Intermediate Policy Makers—principals and school leaders who can influence the behaviour of hundreds of students and families. The aim is not only to reduce waste within the school, but to help schools become centres of change.

The School Sustainability Journey

- Reduce waste at source through school policies.
- Build circular systems inside the school.
- Use the school as a community sustainability centre.
- Document what works so that other schools can replicate it.

This handbook is designed for independent implementation.

Mission City Chakra provides the resource so that a school can understand the approach, assess its own campus and create a system that fits its circumstances. The school should own the implementation, assign responsibility and build continuity into its own processes.

Related resources

- Zero Waste School — Mission City Chakra
- School Biodiversity / Butterfly Garden Handbook
- Neighbourhood Nirmalya Composting at Schools Handbook
- Pune Sustainability Map — stories of schools and institutions implementing circular solutions

www.missioncitychakra.com

Towards a Zero-Waste Pune

<https://missioncitychakra.com/managing-dry-leaves-within-school-premises/>