Green Schools Programme cordially invites you to

WASTE TRANSFORMERS 2020-21

Forum of schools that segregate
Green Schools Programme

GSP recognizes schools who have demonstrated measurable change over the years and improved their resource management.

A Green School is about practices - Forum of schools that segregate.

* We walk the talk,
* We are the change!

- 28 states and 8 UTs
- 7,000+ Schools
- 3,000*+ teachers
- 2,000,000+ Students

* Teachers sensitized through online/ offline capacity building workshops
WASTE WOES: SOLID WASTE DISPOSAL

The above data only accounts for the solid waste generated by urban India annually.
WHAT CAN THE SCHOOL COMMUNITY DO?

1. **First step to waste management**: benchmarking waste generation and disposal

2. **Effective policy and mechanism** of waste segregation and treatment

3. **Indicators of progress**: Operational, environmental, social
…..If we measure our waste, we will know how much we generate. BUT if we deliberately separate out the wet waste - horticulture, kitchen waste - from the plastic, paper, glass, metal, etc, we will know the composition of waste. Once we know this, we can manage it. The wet waste can be composted or used to make energy, and the dry waste can be recycled. But more importantly, we will know what we consume and then plan to deliberately to cut out the high-waste items. WE CAN DO THIS!
Looking back at 2020: Environmental education amid the pandemic
GSP Online Initiatives

1000+ teachers attended the GSP online training workshops and e-courses.
GSP School Dashboard

Empowers schools to monitor the Y-o-Y performance

Response Report

Serves as a baseline to improve Y-o-Y resource efficiency

Performance Report

Provides detailed report & suggestions to sustain green practices

Digital Certificates

Recognises participation by teachers, admin staff and students
GSP Online Initiatives for students

- **GSP Audit@Home (Pan India)**: July 2020
- **Audit@Home (Bihar)**: September 2020
- **Audit@Home (Pan India)**: November 2020
- **Audit@Home Hindi (Haryana)**: August 2020
- **Environment Community Portal (Pan India)**: October 2020
- **Audit@Home: Waste Warriors (Pan India)**: February 2021
GSP Waste Transformers
Forum of schools that segregate

GSP Waste Transformers encourages schools to:

- analyse their baseline waste generation data from previous years
- devise an action plan
- work on the action plan to become zero-waste
GSP Waste Transformers: Assessment Framework

<table>
<thead>
<tr>
<th>Waste collection practices</th>
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<tr>
<td>Management of different streams of solid waste: Wet, dry, domestic hazardous, biomedical, sanitary, C&amp;D and e-waste</td>
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<th>Action plan proposed:</th>
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<tr>
<td>● Feasibility</td>
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<td>● Scientific validity</td>
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<td>● Cost effectiveness</td>
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<td>● Innovation</td>
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<th>Student involvement</th>
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| Short and long term benefits of the action plan |
Launching the forum of schools that segregate
GSP Waste Transformers Schools

Let’s hear from the **Waste Transformers Team** of the following schools:

1. Dr. Rajendra Prasad Kendriya Vidyalaya, New Delhi
2. Global Public School, Ernakulam, Kerala
3. Government High School, Kanah, Solan, HP
4. Gyanodaya Vidya Mandir, Damoh, MP
5. Mount Litera Zee School, Jamshedpur, Jharkhand
6. Queen’s Valley School, New Delhi
Dr. Rajendra Prasad Kendriya Vidyalaya
President’s Estate, New Delhi

ARTIFICIAL INTELLIGENCE BASED PROGRAMMING FOR WASTE SEGREGATION & PROMOTION OF CIRCULAR ECONOMY

Year of joining GSP: 2019
Why was the action plan needed?

1. Wet/biodegradable waste (270 kg/month) is sent to the President’s Estate, but we would like students to understand the resource recovery process

1. Waste was not being used as a resource

1. Waste need to be reduced

1. Paper waste (66 kg/month) is significant
Action Plan

1. Development of **image processing programming** through AI for students to understand types of waste
2. **Using AI to calculate** the most common fraction of **waste generated** in school, e.g., leaves, paper and organic matter
3. **Pilot resource recovery**: Flowers will be treated and converted into new items, such as soaps, candles, etc.
4. Use of **touchless dustbins** (for COVID generated waste) to avoid contact
5. Progress from two dustbins to **three for waste segregation**: - Wet / biodegradable waste bin - Paper waste/ used pens, pencils and other waste bin - Sanitary waste bin in girls’ washrooms
Indicators to assess action plan

1. Improvement in segregation of waste

1. **100 percent resource recovery** for flowers and paper

1. Sensitising students with the help of AI

Basket, paper and candle made from fallen flowers
Global Public School
Ernakulam, Kerala

WASTE WATCHERS

Year of joining GSP: 2018

SCHOOL PROFILE

School category: DAY BOARDING
School type: MIXED/CO-EDUCATION

Lowest level - highest level:
1 - 12

Population: 1536
(including students, teaching and non-teaching staff)
Why was the action plan needed?

- A much-needed mindset change: FROM *Use and Throw* TO *Use, Reuse, Restore*
- Gaps in awareness regarding solid waste management processes and infrastructure in school
- Need for measuring waste generation: *One can only manage what they see and measure*
Action Plan

- **Awareness**
  Spread awareness on solid waste and its management: GPS has tied up with Venture Village, Finland for a **Green City online MOOC focused on SWM** for middle school students

- **Identify** processes for improvement
  **Dry leaf disposal and e-waste tracking:** Working with local homestead to implement aerobic composting

- **Measurement and action**
  Measure the amount of waste and take the most appropriate action
Indicators to assess action plan

- Awareness of solid waste management for one school section at a time, which means **at least 400 students** through inter-house and class events on waste management.

- Dry leaf disposal to be changed from **100% burning to 100% composting**.

- E-waste tracking and disposal methods.
Government High School, Kanah Solan, Himachal Pradesh

SAFE ENVIRONMENT FOR ALL – LIVE JUDICIOUSLY OR LEAVE IT

Year of joining GSP: 2017

SCHOOL PROFILE

School category: DAY SCHOLAR

School type: MIXED/CO-EDUCATION

Lowest level - highest level: 6 - 10

Population: 114 (including students, teaching and non-teaching staff)
Why was the action plan needed?

- Prominent issue in rural area is mismanagement of non-biodegradable waste, leading to soil and water pollution
- Disposal of sanitary waste
- Management of demolition waste
Action Plan

- Incinerator will be installed to treat sanitary waste
- **C&D waste will be used for beautification and path repair**
- Carrying any type of plastic items to be banned in the school
- No packaged food items to be sold in and around the school, thereby reducing multi-layer packaging waste
- Students will be involved in activities such as awareness programmes, rallies, debates, declamations, painting competition with the help of the School Management Committee and village panchayats for proper disposal of non-biodegradable waste
Indicators to assess action plan

- Developing the **habit of throwing waste in dustbin, segregation and proper disposal of waste**
- Awareness regarding eco-friendly practices
- **Reducing the use of non-biodegradable items** such as plastic
- Neat and clean surroundings
Innovative Practices by GSP Waste Transformers

Birla Balika Vidyapeeth, Jhunjhunu, Rajasthan

Installing an autoclave to sterilise COVID waste
Innovative Practices by GSP Waste Transformers

Dr. Rajendra Prasad Kendriya Vidyalaya, New Delhi

Students have designed animated games and videos and shared with all stakeholders to create awareness regarding solid waste management.
Innovative Practices by GSP Waste Transformers

Queen’s Valley School, New Delhi

Safai Karamcharis and private contractors will be actively involved in the management of solid waste by creating awareness among them through Segregate and Manage Waste Workshops.
Innovative Practices by GSP Waste Transformers

Shiv Nadar School, Gautam Buddh Nagar, Uttar Pradesh

Personalized learning programmes as projects for students: Identifying inquiry question, aligning it with SDGs for effective planning and implementing solutions
Innovative Practices by GSP Waste Transformers

- **Curriculum interventions**: Including environmental activities and projects in classroom
- **Steel** water bottles and lunch boxes
- **Paper** and **jute bags** in place of plastic
- **Involving parents** and making them stakeholders through parent-teacher meetings
Manual on Waste Management in Schools

Waste Management in Schools
A Manual for Schools to Become Waste-Wise
# THE GSP WASTE TRANSFORMERS’ PLEDGE

On this day, we PLEDGE to

<table>
<thead>
<tr>
<th>SEGREGATE WASTE AT SOURCE</th>
<th>KEEP OUR SCHOOL AND ITS SURROUNDINGS CLEAN</th>
<th>MINIMISE PAPER USE, RECYCLE ALL PAPER</th>
<th>BAN PLASTIC. SEGREGATE AND RECYCLE WHAT IS USED</th>
<th>REUSE ALL OUR BIODEGRADABLE WASTE</th>
<th>ENSURE PROPER RECYCLING OF OUR E-WASTE AND CONSTRUCTION AND DEMOLITION WASTE</th>
<th>CREATE AWARENESS AND UNDERSTANDING OF SUSTAINABLE MANAGEMENT OF WASTE</th>
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<tr>
<td>By installing and using separate bins (blue, green and yellow) in classrooms, corridors and washrooms for dry, wet and bio-hazardous / medical waste (such as used napkins and sanitary pads).</td>
<td>By not littering, and by using only designated bins for disposing of our waste.</td>
<td>By moving to digital methods and mediums. By collecting paper waste separately for recycling. By reusing textbooks. And by teaching and learning skills to make innovative products out of paper waste.</td>
<td>By promoting alternate materials, like jute and cloth, or steel (for water bottles and lunch boxes). By strictly segregating and ensuring reuse/ recycle if any plastic is used.</td>
<td>By composting it inside the school campus. By building small bio-methanation or biogas plants if possible. And by using the compost to grow our plants, trees, flowers and vegetables.</td>
<td>By using authorised dealers only for recycling this waste.</td>
<td>By working consistently to build opinion and awareness of all stakeholders – students, teachers, parents and all other staff – through workshops, seminars, classroom interventions and innovative projects.</td>
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**ON THIS DAY, WE PLEDGE THAT**

We will work to become ZERO-WASTE schools.

We will MINIMISE waste and MAXIMISE its reuse.

We will make our waste our RESOURCE.

And we will be a WASTE-WISE school.
Do it yourself: Mask making

Channel your creativity and upcycle some old clothes through a fun three-layer mask making activity!

You will need:

- Discarded cotton kurta/ shirt
- Thick paper
- Elastic
- 4-5 safety pins (or a stapler)
- Pair of scissors