MODELLING PRO-ENVIRONMENTAL BEHAVIOUR AT SCHOOL

1ST PART

WEEK 1: INTRODUCTION TO WASTE – WHAT IS WASTE?

Subtopic **Why to care about waste**, its prevention, management or mismanagement (burning, dumping, littering)?

1. Aims

- Cognitive – Understand and explain why we should care about waste
- Behavioural – Show concern about basic surrounding waste issues

2. Approach Strategy – Work first around locally used vocabulary[1], and questionnaire, then explain what is assumed as waste, its generation and handling

3. Materials - Questionnaire to assess their perception of waste previously given.[2]
Card on wastes, images of varied types of waste.

4. Development strategy – Teacher shall explain vividly the historical difference of disposed materials[3] and their lifecycle

5. Expected results – to be able to expound:

- What is solid waste
- Broad difference between types of wastes
- Where and how it is generated
- Who manages the waste

6. Home work – Write an exploratory account on the different types of waste generated in the school (or house) and student's observation on how it is generated and managed.

WEEK 2: RULES AND REGULATIONS ON WASTE MANAGEMENT

Subtopic **Responsibilities of waste generators**

1. Aims

- Cognitive – understand and explain basics of rules related to generators
- Behavioural – start action against self unsound practices like littering

2. Approach Strategy – the teacher will explain carefully the text of the laws

3. Materials – TABLE of the SWM Rules 2016, PWM Rules 2016, KP Act 2015[4]

4. Development strategy – relate the information on rules with the exploratory account done as homework

5. Expected results – Explain thoroughly

- Which are the duties of waste makers towards waste management

6. Home Work – make a resume of the learned rules to the family and elaborate a chart of their duties (students & family) for management of their waste

WEEK 3: RULES AND REGULATIONS ON WASTE MANAGEMENT

Subtopic **Local bodies (Gram Panchayat/TMC) duties**

1. Aims

- Cognitive – understand and explain basics of local bodies duties
- Behavioural – convey acquired knowledge at home, discuss, and report

2. Approach Strategy – the teacher will explain carefully the text of the laws

3. Materials – TABLE of the SWM Rules 2016, PWM Rules 2016, KP Act 2015

4. Development strategy – draw a chart of the relevant duties with students

5. Expected results – Explain comprehensively

- Which are the responsibilities of Gram Panchayat/TMC towards SWM

6. Home work – make a resume of the learned rules to the family and elaborate a chart of GP/TMC/TMC duties for management of waste

WEEK 4: PAIRED DUTIES FOR SOUND WASTE MANAGEMENT

Subtopic **Litterers & Gram Panchayat/TMC complementarity**

1. Aims

- Cognitive – understand the *PAYT* policy and its social implications
- Behavioural – Dispose waste within the rules

2. Approach Strategy – The teacher will articulate carefully the interconnectedness of people and GP/TMC in order to develop student mindfulness on the interdependence of waste duties

3. Materials – Charts, flyers, cards, movie[5]

4. Development strategy – understand the problems of handling and disposal of large amounts of mixed solid waste. Namely:

- Collection
- Transportation
- Segregation and its social side (how rag pickers and pourakarmikas drown themselves in the waste and their life story)
- Recycling

5. Expected results – the students will show

- concern about waste and its environmental issues
- new patterns of behaviour related to waste

6. Home work – Elaborate list of topics to discuss on the forum with GP/TMC

WEEK 5: GRAM PANCHAYAT/TMC FORUM (preparation)

Subtopic **Why should GP/TMC care about waste?**

1. Aims

- Cognitive – To explain to GP/TMC what is an environmental footprint
- Behavioural – Plea GP/TMC elected body for waste mindfulness

2. Approach Strategy – Students instil a personal sense of responsibility and caring on GP/TMC elected body

3. Materials – cards, flyers, charts, movie

4. Development strategy – Teacher will prepare the forum of students with GP/TMC in such a way that students will be able to show how people and GP/TMC can protect or harm the environment through waste (mis)management

5. Expected results – Students will be competent to

- invite GP/TMC elected body to make individual efforts to protect the environment (viz., not littering, picking up trash, not burning, connecting with gujri, creating collecting points, etc.) adopting mindful new patterns of behaviour related to waste
- Request to the whole GP/TMC to provide every person with opportunity to acquire knowledge, values, attitudes, commitment, and skills needed to protect and improve the environment

6. Home work:

- Elaborate a pledge for GP/TMC elected body to follow and make it to be followed by GP/TMC workers
- Write an invitation to GP/TMC elected body for the cleaning up day
- Prepare boards for the next field session

WEEK 6: EVENT : Meeting with GP/TMC elected body

pledge of GP/TMC elected body

WEEK 7: CLEAN-UP DAY – SCHOOL GROUND & SURROUNDING AREA[6]

Subtopic **Motivating and involving stakeholders for (their) waste handling**

1. Aims

- Cognitive – Understand the role of warning tools and devices
- Behavioral – Perform his/her civic duty of sharing learned knowledge and skills

2. Approach Strategy – Teacher will provide guidance for the action and will network with all the stakeholders, gujri and pourakarmikas included.
3. Materials – Boards with slogans, bags, boxes, flyers
4. Development strategy – Involve GP/TMC and local stakeholders in the activity
5. Expected results – The student will be skilled in waste warning practices[7]
Home Work: Make 2 reports: one about the reaction and interaction with people assisting to the clean-up program: was there sympathy, collaboration, doubts, queries, etc, etc). Another on the reaction of GP/TMC elected body

2ND PART

WEEK 8: IMPACT OF SOLID WASTE ON THE ENVIRONMENT

Subtopic **Solid waste & Plastic waste**[8]

1. Aims

- Cognitive – understand locally relevant waste environmental issues and their ethical concerns
- Behavioural – to model environmentally responsible actions[9]

2. Approach Strategy – The teacher will

a) foster clear awareness of, and concern about, economic, social, political, and ecological interdependence

b) provide full information on the role of plastics[10]

- Plastic rules
- What is plastic made of
- Why there are numbers on many plastic items we use
- How are plastics recycled
- New kinds of biodegradable plastics

3. Materials – Charts, PowerPoint presentation, cards
4. Development strategy – observe, describe and discuss environmental changes in water, air, weather, seasonal changes, erosion, ocean, river, rain, temperature, crops.
5. Expected results – develop a personal sense of caring

Reveal a sense of responsibility toward others and environment

6. Home work: Prepares, with the family, a report on the main environmental changes noted by all, especially older members.

WEEK 9: SEGREGATION AND WASTE STREAMS

Subtopic – **Why to segregate?**

1. Aims

- Cognitive – learn waste lifecycle and waste streams
  understand better waste handling and correct disposal methods
- Behavioural – Learn how to make waste sorts, waste assessments and waste audits[11]

2. Approach Strategy – Build a **10 points guide** to understand waste streams

3. Materials – Waste streams chart. Waste audit guidelines.

4. Development strategy – students are lead to analyze their own waste and learn the musts of segregating before disposing[12]

5. Expected results – Students will be fit to explain

- Why to segregate different types of waste
- How should the segregated waste be stored at home/school (from 1 bin to 3 bins)
- Which routes follow the wastes from the different bins

6. Home work: Report, analyse and redress home waste streams management.

WEEK 10: HISTORICAL WASTE DISPOSING PROCEDURES

Subtopic **Composting, Burning,[13] Dumping & Landfilling[14]**

1. Aims

- Cognitive – Understand the socio-economic backgrounds of disposing methods
- Behavioural – interact & facilitate interaction of family with gujri & pourakarmikas

2. Approach Strategy – Show, during the site trip, how many of the objects landfilled could have been reused or given to a gujri/GP/TMC to be recycled.

3. Materials – Landfill visit attended by the Health Officer (or vivid images of local landfill)[15]

4. Development strategy – The teacher will explain:

- What is and how is made an old un-technical sanitary landfill
- Its danger to human and environment health
- Role of methane and leachate
- What is, and how is built, the new technical sanitary landfill

5. Expected results – Students will elaborate a written comparative approach of landfill and spontaneous dumping places at their surroundings

6. Home work: Report types of litter left behind by careless and insensitive visitors:

Field trip to nearest market place, to observe where and how the mindful/uncaring chosen things end up. How they interact with the environment. Find poignant examples

Activity: Visit to the nearest landfill and observe whether it is built following the rules. Observe the smell and list the different fauna (insects, mosquitoes, dogs, pigs, rats, eagles, kites, crows etc.) on the site.

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After this point students are encouraged and supported by the teacher to take initiatives such as:

- Interschool poster competition
- Design and display of banners
- Demo of collection and disposal of waste as per SWM Rules
- Plant of trees
- identify community issues and propose solutions
- Create community signed agreements to keep an area clean
- Awareness building about better cleanliness
- Create zone marshals to survey and report on-going cleanliness
- Elect the Cleanest Street/Road
- Promote sponsorship for litter bins
- Prepare media releases to convey surveys & other activities

WEEK 11: WORLDWIDE NEW TRENDS FOR MANAGING WASTE

Subtopic **Composting,[16] Bio-methanation, Incineration**

1. Aims

- Cognitive **–** understand the nature of composting and bio-methanation
- Behavioural **–** create a vegetable garden and a composting unit

2. Approach Strategy – The teacher will explain

- What is compost and bio-methanation
- Difference between backyard composting and vermicomposting
- How to make compost
- Uses of compost

3. Materials – food leftovers, leaves, etc,

4. Development strategy – Install a composting unit in the school (special prize to those who install a unit at home)

5. Expected results – The student will exchange knowledge and skills with family and neighbours

6. Home work: Explain at home the learned procedures and report analogous ancestral knowledge from the family

WEEK 12: RECYCLE RESOURCES

Subtopic **Reduce, Reuse and Recycle**

1. Aims

- Cognitive – relate *punarbhava* to resources[17]
- Behavioural – Develop mindfulness while buying and disposing goods

2. Approach Strategy – The teacher will show how a **circular economy** is a better alternative to the linear **economy** (make – use – dispose)

3. Materials –

4. Development strategy – The teacher will explain[18]

- what is recycling
- why we should recycle
- which are the things that can be reused and the different ways of reusing them (for the same purpose as meant before or for a different purpose after some alteration. Eg. Bags from t-shirts, swing from used tyres, pots from bottles, etc)

5. Expected results – the student will **deeply and thoroughly** understand the importance of natural resources and that they not only existing for human needs

6. Home work: Choose any disposed waste and find a second life for it[19]

WEEK 13: WASTE PREVENTION[20]

Subtopic **After "buy, use & throw", "share, repair & reuse"**

1. Aims

- Cognitive - Identify and list re-use and repair people, services & networks, formal and informal
- Behavioural – Teachers & Students adopt green actions[21]

2. Approach Strategy –

- relate environmental problems with waste prevention
- show negative consequences of current consumerist life style
- demonstrate positive consequences of behaviour change[22]

3. Materials –

4. Development strategy – Teacher will explain the importance of waste prevention[23]

5. Expected results – The students will be able to explain:

- how to reduce waste generation
- the need to practice waste reduction

6. Home work: Identify and inventory serious

- disorders/barriers to a faultless waste management at their place/context
- environmental problem at their surroundings

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After this point the students can opt for option A or B to conclude the Program

WEEK 14

A - STUDENT'S TRIBUNAL

Why should students summon responsibles for environment deterioration?

It's a simulation program where students are enabled to cross-examine the whole system after understanding and inventorying the local impediments to a sound waste management.

While performing student's tribunal, various stakeholders in solid waste generation and management (viz., trashers/ governors, state & regional pollution control boards, Gram and Taluka Panchayats, TMC Officers and Counselors, Health Officers, etc.) are summoned to defend their actions.

This should be done with the support of teachers, resource persons, eco-clubs and environmental ngos, after undergoing an intensive learning through the above 12 WEEKs. It is like recreating a court in the school where the local authorities and the community members are summoned to justify their action towards environment through their solid waste management.

The proceedings with the judgment and list of suggestions from the students could be sent to the District Commissioner, MLA and the District Minister.

B - ENVIRONMENTAL GOOD DEED DRIVER

For students who

- have identified an environmental problem related to waste that is not being taken care of at their place
- have want to do something about it

Teachers of Eco-clubs are to share **FOUNDATIONAL ENVIRONMENTAL KNOWLEDGE**

with them.

Because environmental knowledge leads to environmental awareness and thus to pro-environmental behaviour, this driver will tackle waste problem from the ecological perspective aiming to **model pro-environmental behaviours.**

Preliminary is proposed a thought on

1. Which trash behaviours should be changed to solve environmental problems?
    - Select 5 behaviours having major negative environmental impacts
    - Assess the feasibility of behaviour changes
    - Identify groups to be targeted
2. Which factors determine the relevant behaviour?
    - Perceived costs and benefits
    - Social, moral and normative concerns
    - Emotional conditionings
    - Contextual factors
    - Habits
3. Which interventions could best be applied to encourage pro-environmental behavioural changes?
    - informational strategies, persuasion, social support, role models
    - others to be listed by students

Optional guidelines:

1) Learn about the problem.
    - Take time to be sure you have the whole right information.
    - If you can't find out what you need to know on your own, find a friend, a teacher, someone of your family, to help you along the way.
    - Be sure to find out who you need to talk to in your community or school to get action taken.
2) Get a friend or friends involved.
    - Get a group of friends together and tell them what you have learned.
    - Get them involved.
    - Divide up the work.
    - Get together often.
    - Decide together how you are going to take care of the problem.
3) Set up a meeting to talk with others (including adults) about the problem.
    - Invite other students, teachers, parents, other adults, local officials.
    - Write down what you want to say and what you want to have happen at the end of the meeting.

- Call people to make sure they know what will be happening.
- Before the meeting begins, tell people why you think the problem has to be solved, ask for help in finding ways to solve it.
- Get people to volunteer to help.
- Have list of tasks to do.
- Plan the next meeting.
- Be sure to set a timeline.
- Make sure you know who to talk to.
- Get adults to help too, so that you have some extra support and widen the group!

4) Do any needed follow up!

5) Form a coalition with people and organizations to get something done.

- To get the job done, you have to think about who you are trying to effect and how to get them within the project.
- Plan how you will talk to these people.
- Make sure you keep in touch with people who say they are going to help, and that they really do help.

6) Tell everyone what is happening and how much progress you are making.

- If roadblocks appear, work to get them out of the way.
- Let people help you take care of them.

7) Be patient. Be persistent. Be positive.

8) Follow up. Make sure everything gets done.

9) Celebrate when you get the problem fixed.

Pick your next environmental good deed!

movie – versova beach