

Road Map – Air Pollution

Class VI -Project of Science (2019-20)

The class will be divided into groups of 6 -8 students who will perform the following activities under the project 'Air Pollution'. They will be asked to work collectively in a team. The project should be compiled in a creatively made folder. The project will be of 10 marks.

The following rubrics will be followed-

Experiment (Presentation)	- 2 marks
Survey/Questionnaire	- 2 marks
Presentation of file	- 2 marks
PPT	- 2 marks
Viva	- 2marks

- The students of class VI will work on a project on Air pollution. Videos and power point presentation will be shown to the students, followed by a class discussion and explanation of the topic by the teacher.
- Useful links for research will be shared with the students.

Following activities will be done by the students:

- **Activity-1-Leaf Experiment** - To make them understand the presence of polluted air in the surrounding, 'Leaf Experiment will be conducted in the laboratory where the students will compare the leaves from roadside plants and a few leaves from indoor plants to check presence of particulate matter.
- **Activity-2- i) A Visit to Air Quality Monitoring System-** A visit will be conducted to make the students understand the measure of air quality in Dwarka, Sector 8. They will know that the air monitoring stations measure the amount of particulate matter, nitrogen oxide/dioxide, sulphur dioxide, ground level ozone and carbon monoxide while calculating air quality index to issue health advisories.
ii) Visit to PUC centers – The students will visit a PUC with their parents and will get their vehicles checked. They will understand that the vehicles are checked for emission of smoke, carbon monoxide and other pollutants. Based on the test, a PUC certificate (Mandatory document) is issued to certify that vehicles meet emission and pollution norms.
- **Activity-3-Air Mask-** Each group of students will make a mask using their creativity and knowledge under the supervision of teacher in-charge.
- **Activity-4-** An Experiment will be conducted to observe the scattering of light (Tyndall effect) through polluted air and clean air.
- **Activity-5-Role Play**–Students will enact a role play through which they will make the general public aware of the ill-effects of air pollution.
- **Activity-6-**Each group will make a power point presentation for the exhibition. They will also conduct a survey in their neighborhood which will give the students an idea of how many people are affected by it and who are most at risk from air pollution.
- **Annexure:** Questionnaire (to be done by the students) and Survey Questions (to be filled by the family members, neighbors, friends and relatives)

Solar Power: Need of the Hour

Class VII- Project of Science (2019-20)

The class will be divided into groups of 6 - 8 students who will perform the various activities on the project 'Solar Power – Need of the hour'. They will be asked to work collectively in a team. The project should be compiled in a creatively made folder. The project will be of 10 marks.

The following rubrics will be followed-

Experiment = 2 marks

Survey/Questionnaire = 2 marks

Presentation of file = 2 marks

PPT = 2 marks

Viva = 2 marks

- The students of class VII will work on a project on solar power. Videos and power point presentation will be shown to the students, followed by a class discussion and explanation of the topic by the teacher.
- Useful links for research will be shared with the students.

Following activities will be done by the students:

- **Activity 1-** Making a simple solar cell: A simple solar cell with the help of easily available components will be made by the students under the supervision of teacher in-charge.
- **Activity 2** – A model of an ideal house will be made by the students where they will try to harness maximum of solar energy (Photovoltaic cell and thermal energy system).
- **Activity 3** – Interview of a society secretary/ solar vendor/ consultant to understand the procedure of getting solar panels installed and learning the benefits of installing the solar panels. .
- **Activity-4-**They (group) will also make a PowerPoint presentation (10 – 15 slides) to present the learning outcomes of the project.

Annexure: Questionnaire (to be done by the students) and Survey Questions (to be filled by the family members, neighbors, friends and relatives)

WASTE MANAGEMENT AT HOME AND SCHOOL

Class VIII Project of Science (2019-20)

The class will be divided into groups of 6 - 8 students who will perform the various activities on the project 'Waste Management At Home and School'. They will be asked to work collectively in a team. The project should be compiled in a creatively made folder. The project will be of 10 marks.

The following rubrics will be followed-

Experiment	= 2 marks
Survey/Questionnaire	= 2 marks
Presentation of file	= 2 marks
PPT	= 2 marks
Viva	= 2 marks

- Power Point Presentation - The students of class VIII will work on a project on waste management. Videos and power point presentation will be shown to the students, followed by a class discussion and explanation of the topic by the teacher.
- Useful links for research will be shared with the students.

Following activities will be done by the students:

- **Activity 1-** Making water filter.

Students will make one water filter per group, using material like charcoal, fine sand, clean pebbles, plastic containers, one tap for container, sieve and one bottle. They can take help from the following link.

<https://www.youtube.com/watch?v=pc0-TtkJSc>

- **Activity 2** – Making table organizer from waste - Students will make one table organizer per group using waste like cardboard and few decorative materials (newspaper and water colors can be used for decoration). One sample will be shown to students in the classrooms.
- **Activity 3** – Making envelopes and cards from waste - Students will make one card and one envelope (using newspaper) each.
- **Activity 4** - Waste Warriors - Students will tie a cloth bag around their waist for one day to collect the waste produced in the school. They will roam around the school at different intervals to collect the waste from the school ground. This waste will be weighed to know the dry waste produced in the school premises.
- **Activity 5** - Comparing degradation of biodegradable and non-biodegradable waste-Students will take the plastic and other non-biodegradable material from their Waste Warrior Campaign. They will also bring kitchen waste from their home. Both the types of waste will be kept in school for decomposition to compare the degradation rate of biodegradable and non-biodegradable waste.
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- **Activity 6** - Donation of stuff -Students tend to stop wearing clothes after certain usage. They do the same thing with their stuff like pens, colors, bags, etc. The students will visit an orphanage along with their parents, nearby their home for donation of such stuff. The students will take pictures of their visit and donation.

- **Activity-7** -They will also make a PowerPoint presentation (10 – 15 slides) to present the learning outcomes of the project.

Annexure: Questionnaire (to be done by the students) and Survey Questions (to be filled by the family members, neighbors, friends and relatives)