

## PROJECT WORK

**CLASS:** X CLASS

**SUBJECT:** BIOLOGY

**NAME OF THE PROJECT:** Air purifying plants (Cleaning agents of the home air)

**AIMS:**

- To know about the toxins released into the home atmosphere.
- To understand the impact of toxins on people's health.
- To create awareness on air purifying plants and they will grow them.

**HYPOTHESIS:** Do all plants purify the home air?

**TOOLS:** Survey and Questioner.

**PROCEDURE:**

- We conducted a survey on a few houses with plants and few without plants.
- We approached a famous environmentalist and collected the required the information through questioner.
- We collected some pictures from internet related to air purifying plants.
- We collected information about the uses of air purifying plants from journals.

**SURVEY:** We conducted a survey on the houses with plants and without plants.

House with number of plants



House with a single plant



The people in the house with plants	The people in the house without plants
1. Good health and peace of mind. 2. No pollution 3. Fresh air	1. Ill health and suffering from many diseases like allergy, eye diseases, etc. 2. Pollution 3. No fresh air

**QUESTIONER:****1. What is the role of man in protecting the environment?**

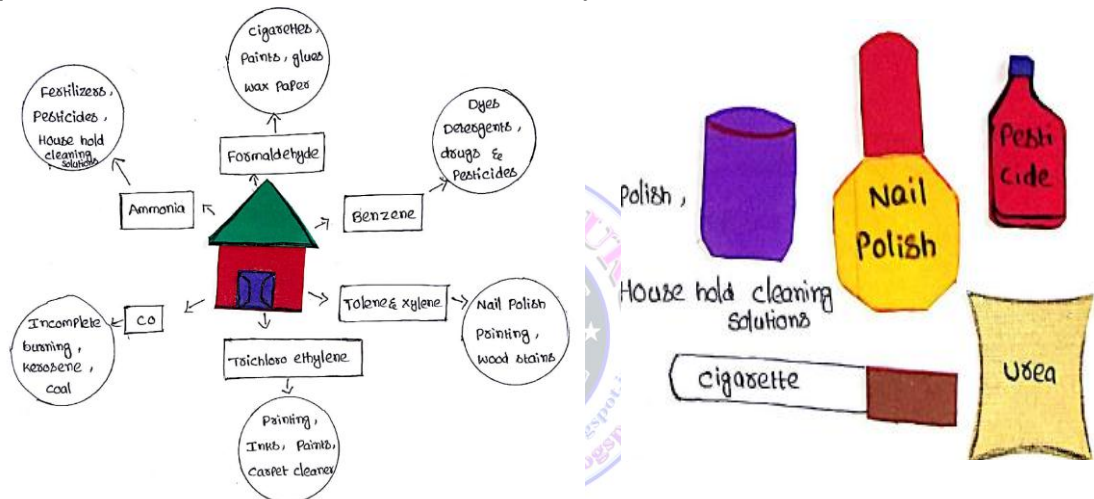
- Man is acquiring knowledge, but destroying environment. Environment gives us everything but man alone is destructing the nature. Man has to pay a lot for this.

**2. What are the toxins released from the house hold cleaning agents?**

- Because of the usage of house hold cleaning agents house hold cleaning agents, nail polish, pesticides, cigarettes, fertilizers, kerosene, dry cleaning solutions, detergents mainly 6 toxic substances are released into the home atmosphere.

**3. What is the harmful effect of these toxins on the health?**

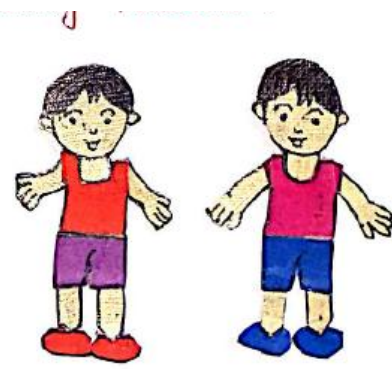
- Due to these toxins one out of three women and one out of two men suffer from cancer. Prevention is better than cure. So we must grow some home purifying plants like Aloe vera, Anthurium, Peas Lily, etc.

**4. What is the role of air purifying plants?**

- Plants act as filters because they absorb toxins through leaves. When plants absorb toxins human body is protected against diseases such as asthma, allergies, etc.

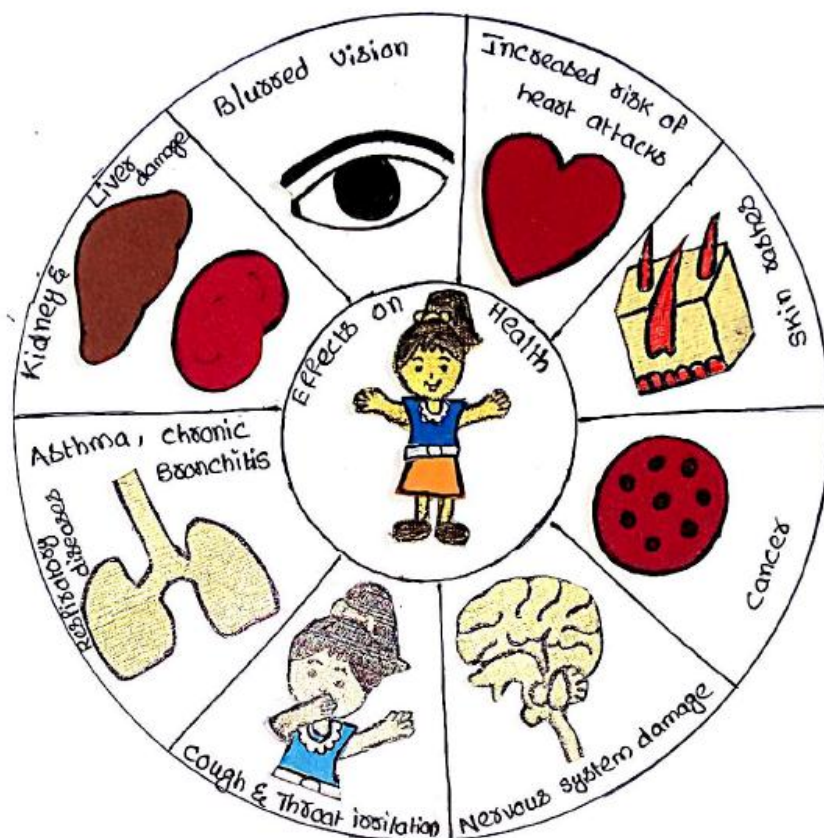
**IMPACT OF TOXINS PRESENT IN THE CLEANING PRODUCTS**

1 in 3 women



1 in 2 men

What are the health problems caused by the toxins present in home air?



Plants do not only add natural beauty to a home. They can also create a refreshing vibe in a room. According to studies plants can help in purifying the air that we breathe as they increase the amount of oxygen and absorb toxins. The good news is that these plants are easily found and you can add them to your home to provide yourself and your family with air that is much purer and free from harmful agents.

### AIR PURIFYING PLANTS

It is possible to filter your indoor air with the best air purifying plants. The results are so proven that even NASA has concluded that the plants you choose for your home make a difference. Here are some of the best plants that will go to work making your indoor environment cleaner.

**BOSTON FERN:** Often named as the “Most efficient filtering plant for its time tested ability to expel mold and toxins from indoor air. This plant cleans out formaldehyde, benzene, toluene and xylene.



**PEACE LILY:** Number one on many lists the easy to care for lily is known to reduce harmful indoor toxins that may cause cancer. It helps in removing benzene and formaldehyde present in home air.



**SPIDER PLANT:** This elegant plant is great at removing poisonous gases as well as other impurities like formaldehyde and xylene. Try one in the kitchen or near the fire place, as these are places where CO accumulates most.



**ENGLISH IVY:** A great choice for people with asthma and allergic conditions, This plant has the amazing ability to remove benzene and formaldehyde released by synthetic materials. 60% of air borne mold in the room vanished just six hours after English Ivy is brought



**CHINESE EVERGREEN:** It is an excellent air purifier. Chinese evergreen emits high O<sub>2</sub> content and purifies indoor air by removing chemicals such as formaldehyde, benzene and other toxins.



**CHRYSANTHEMUM:** It can help to filter out benzene, a chemical that is very commonly found in many house hold detergents as well as paints, plastics and glu products.



**SNAKE PLANT:** It is one of the most beautiful plants and its leaves resemble the snake. It removes some indoor contaminants.



**RUBBER PLANT:** The O<sub>2</sub> out put of a rubber plant is higher than the other indoor plants. This plant cleans the air by removing toxins and compounds like ammonia, trichloroethylene.

**ALOE VERA:** It acts as a living air purifier. It absorbs chemical pollutants released by cleaning products.



**GERBERA DAISY:** NASA says this plant is fantastic at removing benzene. It also absorbs CO<sub>2</sub> and gives off O<sub>2</sub> overnight, which is said to improve your sleep.

**ANTHURIUM:** It is a natural air purifier. It absorbs ammonia, formaldehyde, toluene and xylene present in home air.



**ANALYSIS:** After the careful analysis of the collected information the following findings are observed.

- The people living in houses with plants are healthy and they have fresh air.
- The people living in houses without plants are ill healthy, suffer from several diseases and they do not have fresh air.

**CONCLUSION:** Air purifying plants play a major role in making home air free from toxins. Thus they are essential for our good health. Inturn they help us to maintain good environment too.

**IF THERE ARE TREES, THERE IS SAFTY. IF THERE ARE NO TREES, THERE IS DANGER**

**OUR EXPERIENCES:** It isa thrilling experience of us to nurture air purifying plants in our areas. as we love gardening we derive great pleasure in growing plants in our surroundings.

**THANKS:** We thank our guide teacher, N.Sukanya SA (BIO) for her guidance and cooperation to complete this project successfully. We also thank to the environmental activist who gave us a detail information about this.

**RESOURCES:** Internet, Magazenes and teacher.