

CLASS: VI

HOLIDAY HW

SUB: SCIENCE

WRITE NEATLY IN (A4 SIZE PAPER WITH BORDER), WITH AN INDEX PAGE ABOUT YOUR DETAILS.

ACTIVITY :- 1 (DEMONSTRATION ON AIR POLLUTION)

MATERIALS REQUIRED: 3 Sheets of white paper , petroleum jelly or grease.

Procedure:- Smear two sheets of paper on one side with petroleum jelly or oil. Put the sheets next to each other, smeared – sides up, on a window sill and clamp the sheets in place or tape them to the outside of the window.

The jelly/oil being sticky , pollutants floating through the air will stick to it. Take one of the sheets at the end of the day one and see how dirty it looks. Compared to a clean sheet of paper. Save this dirty sheet. Take the other sheet after a week. See how dirty this is. Compare this sheet to the first dirty sheet as well as to the white clean sheet.

Do this activity in different areas of your house and compare which place more air pollution took place. (attach proof by taking photo wherever possible) and paste it in your procedure.

s.no	Area used	One day	After one week (write your observation)
1	Dining hall		
2	Bed room		
3	kitchen		

ACTIVITY : 2 (DEMONSTRATION OF TRANSPIRATION)

- **MATERIAL REQUIRED:** any common small plant around 8-10 in numbers,
- all of almost similar size. Five identical used empty transparent small bottles,
- water, razor blade, marker.

CONCEPT : Transpiration is the loss of water in vapour form from the aerial parts of a plant.

Stomatal (small hole present in leaf) Transpiration accounts for over 90% of the total transpiration.

Transpiration rate varies under different environmental condition.

PROCEDURE:

- Fill the 5 bottles with water up to the neck and calibrate them with the help of a marker.
- Cut down the root with the help of a razor blade and keep the shoot for the experiment.
- Place one shoot portion in one bottle filled with water and within few hours turgor will be restored.
- Prepare all 5 bottles. Seal the top of the bottle having the twig in it with clay. This will ensure that water is lost via transpiration only and not by evaporation.
- Mark the initial level of water in each bottle.
- Place the five set ups under different environmental conditions.
- The first set up should be placed in sunlight.
- The second should be placed close to a fan.
- The third should be placed near the window but in shade.
- The fourth one should be kept in a dark corner.
- While in the fifth remove half of the leaves from the twig.
- Measure the change in water level after every 30 minutes.
- Record your observations. **attach photo proof.**

Date & day	Bottle 1	Bottle 2	Bottle 3	Bottle 4	Bottle 5