



Learning by Doing

Exercise 1:

This exercise will help you understand how land use affects air pollution.

What is land use classification and why is it important?

Land-Use is classified as residential, commercial or industrial on the following basis:

Residential: If an area or a locality is primarily occupied by apartment complexes, independent houses or societies, it is classified as a residential area.

Commercial: Hotels, restaurants, open eateries, shopping malls would fall under the commercial category

Industries: Small scale, medium scale or large scale industries mark an industrial landscape

Land use classification helps identify the nature of pollutants in an area.

You must also understand that closer the polluting source, the greater will be its impact. In other words, if the stack of a factory is 200 meters from person A and 550 meters from person B, person A will be affected more by the emissions being generated by the stack.

The following exercise should be performed keeping the above principles in mind. This is a visual exercise primarily based on observations. Try to be as observant as you can. Good Luck!

You need to visually inspect the area around your school. Keep the area of influence within 1 km radius from your school. Once, you have recorded your visual observations, use the google earth map tool to represent these records digitally.

Step 1: Listing your observations

- all the polluting sources observed
- name of the facilities - if you spot polluting factories, mills or any other setups,
- approximate location of the sources, w.r.t the location of your school

Also, briefly describe why you think the sources you listed above are polluting in nature

(Students can do this during their free time)

Step 2: Create digital plots

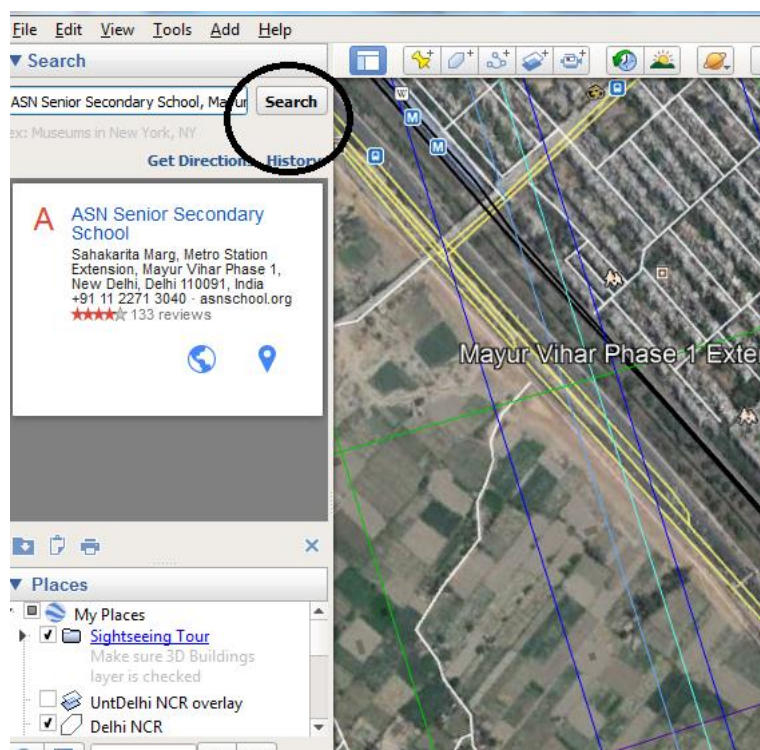
Instructions for Mapping Exercise

Step 1: Install Google Earth Tool (web link: <https://www.google.com/earth/download/gep/agree.html>)

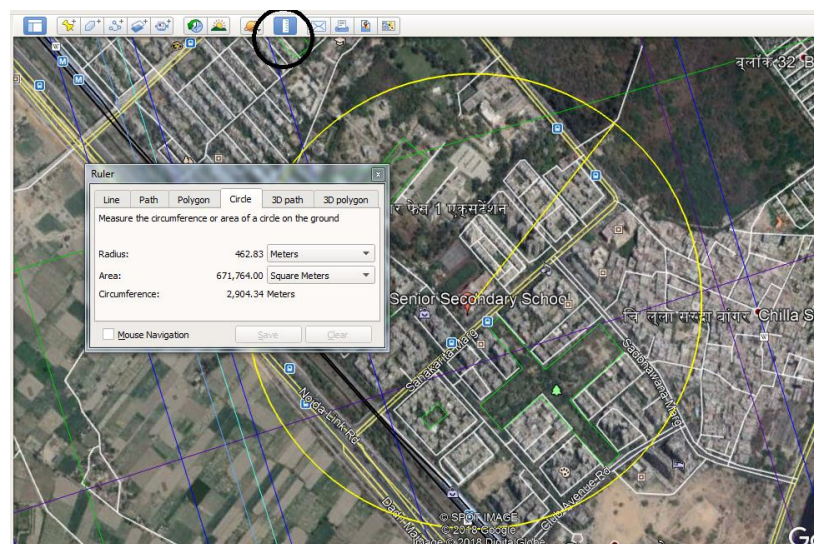
Step 2: Launch the tool



Step 3: In the search bar, type the name of your school. Google earth view should zoom into your school's vicinity.

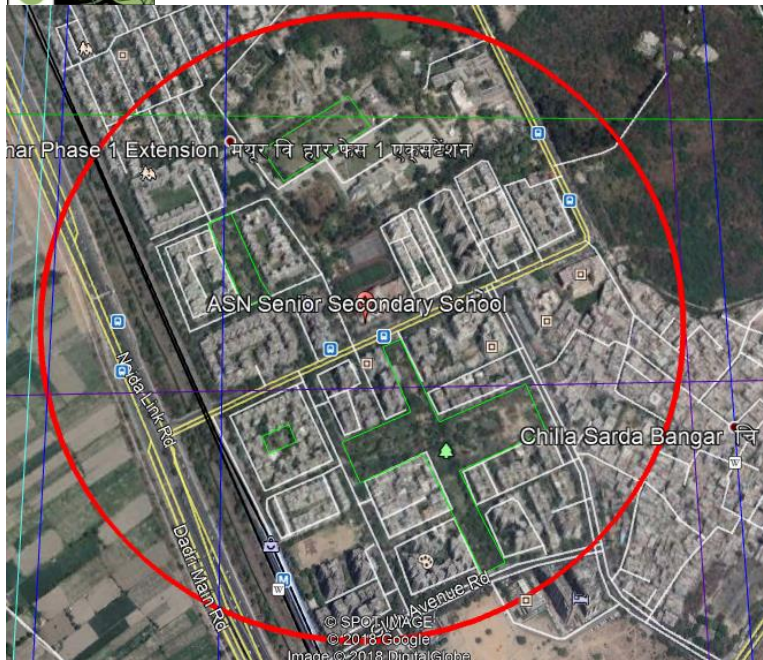


Step 4: Use the ruler tool, to identify a 1 km radius influence area around your school



Step 5: Aerial survey of identified influence area

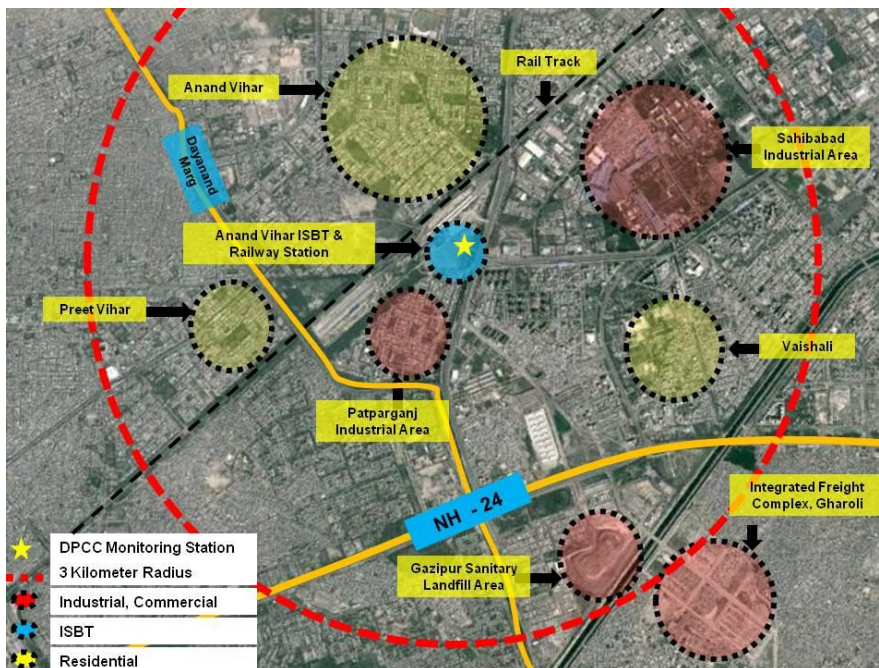
You can now identify different land uses within the vicinity of your school.



(The associated mapping exercise will help answer this question better)

Perhaps, you know Anand Vihar in East Delhi is an air pollution hotspot. Residents and commuters get affected due to this. Hence, CSE conducted an exercise where we monitored air quality in a few spots to know the personal exposure and also identified and marked -- the prominent pollution sources/ areas on a Google Map.

Map: Anand Vihar and surrounding areas





Source: CSE analysis and mapping based on Google Maps, Eicher - Delhi City Map

- The DPCC (Delhi Pollution Control Committee) air quality monitoring station is located at Anand Vihar ISBT
- In 3 km radius of the monitoring station; there are 2 prominent industrial sites (Sahibad and Patparganj)
- 2 heavy traffic arterial roads (Swami Dayanand Marg and National Highway 24) passes through the area
- Also located in the 3 km radius are residential areas like Anand Vihar, Preet Vihar and Vaishali
- IFC located at Gharoli is also in the proximity

Exercise 2: Please list the monitoring stations close to your school and residences and build trends of PM 2.5 to know the trend and severity of the pollution compared to the standard/ safe level

(Students can do this during their free time)