Download Toppr - India's best learning app for classes 5th to 12th

360° learning with our adaptive platform

**Online Classes**
Learn for free with short videos and live classes

**Adaptive Practice**
Practice smart with questions created for your unique needs

**Mock Tests**
Be exam ready by solving all India tests and previous years' papers

**Live Doubts**
Chat with tutors and get your doubts resolved instantly, 24x7

**Live Classes**
Learn concepts and get tips from the best teachers with free Live Classes

---

Learn for free with the best videos

Polish your basics with fun games

Practice smart with personalised questions

Get your doubts cleared instantly, 24x7

---

Download the app for FREE now

GET A 5-DAY FREE TRIAL

[Get it on Google Play](#)
[Get it on App Store](#)

---

9,184,321 HAPPY STUDENTS
492,461,127 QUESTIONS ATTEMPTED
3,986,828 TESTS TAKEN
8,017,171 DOUBTS ANSWERED
NCERT Solutions for Class 8 Subject-wise

- Class 8 Maths
- Class 8 Science – Physics
- Class 8 Science – Biology
- Class 8 Science – Chemistry
- Class 8 Social Science – History
- Class 8 Geography
- Class 8 General Knowledge
- Class 8 Civics
#423909

**Explain tropospheric pollution in 100 words.**

**Solution**

The presence of unwanted substances in the lowest layer of the atmosphere results in tropospheric pollution. Major gaseous pollutants include oxides of sulphur, nitrogen, carbon and hydrocarbons. Burning of fossil fuels (coal, automobile fuel) produce oxides of sulphur and nitrogen. They react with water in presence of oxygen of air and form nitric acid and sulphuric acid. This causes acid rain which is harmful to agriculture plants and trees. It causes various respiratory ailments. Burning of hydrocarbons (cancerogens) produce oxides of carbon. CO is poisonous and can lead to death. CO\(_2\) is responsible for global warming. Particulates of smoke dust mist and fume are harmful for human health and cause respiratory ailments.

\[
\begin{align*}
2\text{SO}_3(g) + \text{O}_2(g) + 2\text{H}_2\text{O}(g) &\rightarrow 2\text{H}_2\text{SO}_4(g) \\
4\text{NO}_3(g) + \text{O}_3(g) + 2\text{H}_2\text{O}(q) &\rightarrow 4\text{HNO}_3(q)
\end{align*}
\]

#463298

**What are the different ways in which water gets contaminated?**

**Solution**

Water gets contaminated by following:

1. Untreated sewage
2. Practice of bathing and washing near a water body
3. Practice of cremating the dead bodies near river banks
4. Oil spill

#463299

**At an individual level, how can you help reduce air pollution?**

**Solution**

Following steps can be taken to reduce air pollution at individual level:

1. Use of bicycles more than the fuel based vehicles.
2. Public transport can be used more than the private vehicles for commuting.
3. Planting of saplings will provide a pollution free air in near future.

#463300

**Clear, transparent water is always fit for drinking. Comment.**

**Solution**

Even the clear, transparent water can contain harmful germs, spores or microbes of many diseases which cannot be seen by the naked eyes so the clear water is not necessary fit for drinking but boiled water is the safe solution to avoid diseases.

#463301

**You are a member of the municipal body of your town. Make a list of measures that would help your town to ensure the supply of clean water to all its residents.**

**Solution**

I will take following steps to ensure the supply of clean water. I will make sure;

1. All leakages in the pipelines are repaired.
2. Water is properly treated before it is supplied to the households.
3. Sewage treatment plant is installed in the municipal area.

#463302

**Explain the differences between pure air and polluted air.**

**Solution**
Pure air contains around 78% nitrogen, 21% oxygen and 0.03% carbon dioxide. 1. Pure air contains around 78% nitrogen, 21% oxygen and 0.03% carbon dioxide. 1. Pure air contains around 78% nitrogen, 21% oxygen and 0.03% carbon dioxide.

2. Other gases such as argon, methane, ozone, and water vapours are also present in small quantities. 2. Other gases such as argon, methane, ozone, and water vapours are also present in small quantities. 2. Other gases such as argon, methane, ozone, and water vapours are also present in small quantities.

3. It is fresh and healthy for lungs. 3. It is fresh and healthy for lungs. 3. It is fresh and healthy for lungs.

1. Polluted air has no such definite composition of these gases. 1. Polluted air has no such definite composition of these gases. 1. Polluted air has no such definite composition of these gases.

2. Polluted air has harmful gases like nitrogen dioxide, sulphur dioxide, carbon monoxide, particulate matter etc. 2. Polluted air has harmful gases like nitrogen dioxide, sulphur dioxide, carbon monoxide, particulate matter etc. 2. Polluted air has harmful gases like nitrogen dioxide, sulphur dioxide, carbon monoxide, particulate matter etc.

3. It can cause respiratory diseases. 3. It can cause respiratory diseases. 3. It can cause respiratory diseases.

#463303

Explain the circumstances leading to acid rain. How does acid rain affect us?

Solution

Acid rain is caused by burning of fossil fuels such as coal and diesel which releases a variety of pollutants such as sulphur dioxide and nitrogen dioxide into the atmosphere and these pollutants react with water vapours present in the atmosphere to form sulphuric acid and nitric acid respectively. These acids come down with the rain, thereby resulting in acid rain.

Effects of acid rain:
1. Acid rain cause soil pollution and damage the crops.
2. It reacts with the building material like marble, which is calcium carbonate, and corrodes them. Development of yellowish colour on the marble of the famous Taj Mahal is an effect of acid rain.

#463304

Which of the following is not a greenhouse gas?

A  Carbon dioxide
B  Sulphur dioxide
C  Methane
D  Nitrogen

Solution

Greenhouse gases present in the atmosphere trap the radiations and do not allow heat to leave. Examples of greenhouse gases include carbon dioxide, methane, sulphur dioxide.

#463305

Describe the Greenhouse Effect in your own words.

Solution

The greenhouse effect is a phenomenon when the earth acts like a greenhouse trapping the solar radiations which are supposed to be reflected back to the atmosphere. These radiations are trapped by some gases like methane, carbon dioxide and water vapours, which are found excessively due to air pollution. So, this results in global warming.

#463306

Prepare a brief speech on global warming. You have to deliver the speech in your class.

Solution

Global warming means an increase in the average global temperature due to the presence of some greenhouse gases like $\text{CH}_4$, $\text{CO}_2$ and water vapour. These gases have the tendency to trap the solar radiation and are not reflected back. Hence, causing an average increase in the earth's temperature, hence the name "global warming".

#463308

Describe the threat to the beauty of the Taj Mahal.

Solution

Taj Mahal is our famous ancient monument which is showing signs of degradation, as its marble which is calcium carbonate, is being corroded by the frequent acidic rains. The reason for these acid rains is the presence of a refinery; Mathura chemical refinery which is releasing acidic fumes like sulfur dioxide and nitrogen dioxide into the atmosphere.

#463425

Why does the increased level of nutrients in the water affect the survival of aquatic organisms?
Eutrophication is when the environment becomes enriched with nutrients. It is a natural process in lakes, occurring as they age through geological time. It causes structural changes to the ecosystem such as increased production of algae and aquatic plants, general deterioration of water quality and other effects leading to the deficiency of oxygen in the water which affects the survival of aquatic organisms like fishes etc.