

Acid rain

■ What is acid rain?

Acid rain is precipitation containing damaging amounts of **nitric acid** (HNO_3) and **sulphuric acid** (H_2SO_4) released into the **atmosphere** when fossil fuels are burnt. It can be wet precipitation (rain, snow or fog) or dry precipitation (**PMs** and **dusts**). Rain water is naturally **slightly** acidic but increased levels cause damage to **crops**, buildings, wildlife and indirectly to people. Some natural phenomena such as emissions from volcanoes, decaying vegetation, **wildfires** and lightning strikes can contribute to the acidification of the atmosphere.

■ Effects on the environment

Acid rain can have terrible effects on the environment. The acid takes away important minerals from the leaves of trees and from the soil. Minerals are like vitamins for trees and plants; without them, they cannot grow properly, losing their leaves and becoming very weak. The ecological effects of acid rain are most clearly seen in aquatic environments, such as rivers, lakes, and **wetlands** where they can be harmful to fish and other wildlife. As it flows through the soil, acidic rain water can **leak** aluminium from soil **clay** particles and then flow into rivers and lakes.



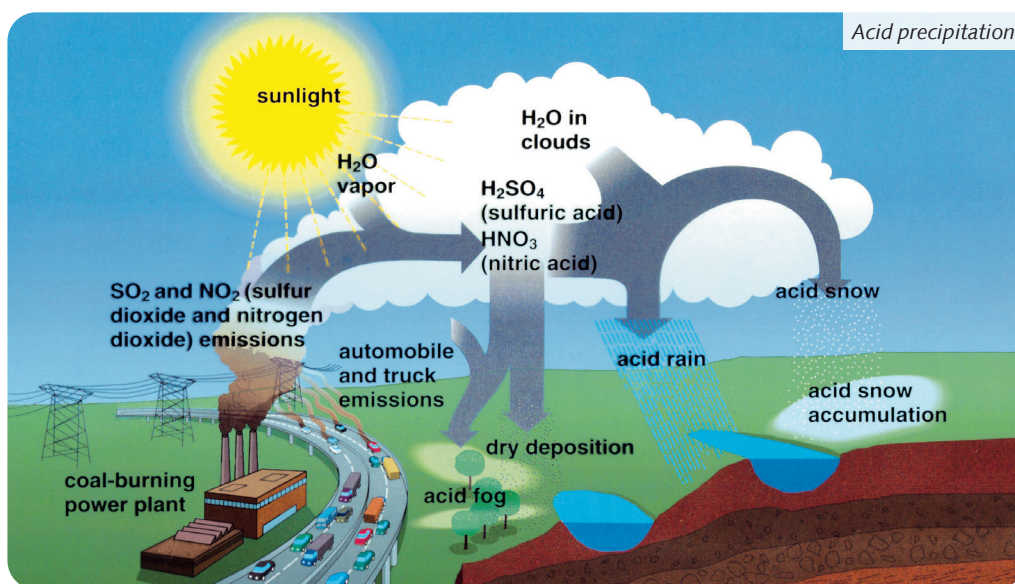
Colourful autumn leaves with acid rain stains.

■ Effects on architecture and buildings

Sometimes dust particles can become acidic as well, and this is called **dry deposition**. When acid rain and dry acidic particles fall on statues, buildings, and other man-made structures, they damage their surfaces corroding metal and causing **paint** and stone to deteriorate more quickly. They also dirty the surfaces of buildings and monuments.

■ Effects on public health

Particulates, usually known as **PMs**, are one of the main causes of **health problems**. When we breathe, these very fine particulates can easily enter our **lungs**, where they can cause breathing problems and over time even cause cancer.



1 Answer these questions.

1. What is acid rain?
2. What kind of form does acidic precipitation take?
3. What can acid rain damage?
4. What natural phenomenon may increase acidity in the atmosphere?
5. What negative effects does acid rain on plants and trees have?
6. What is the effect of acid rain on aquatic environments?
7. What happens to buildings if they receive acidic precipitations?
8. What kind of diseases can acid rain cause in human health?

2 Read the text again and find the English equivalents for these words.

Italian	English
1. <i>carburanti fossili</i>	
2. <i>polveri</i>	
3. <i>fulmini</i>	
4. <i>foglie</i>	
5. <i>terreno</i>	
6. <i>pietra</i>	