

## Chemical Reactions - Acid Rain Homework

As rain falls through the air it can dissolve gases. The carbon dioxide which we breathe out is dissolved by the rain. Carbon dioxide is acidic. This means that normal rain has a pH of 5 or 6. Animals and plants are used to this weakly acidic rain. However, there are other acids in the atmosphere. The pH can fall to 4 or even lower.

These other acids are oxides of sulphur and oxides of nitrogen. Sulphur dioxide is made when some fuels, containing sulphur, burn in air. It can be made at power stations. Nitrogen dioxide comes from the exhaust fumes of cars.

This acid rain is a serious problem. It can attack building materials, such as metals and limestone. It can be washed into rivers and lakes. This can lower the pH so much that all the plants and fish die. The acid rain can also destroy trees. Acid rain can be blown to other countries too, by the wind. Forests in Norway and Sweden are being affected by acid rain. This may be from the pollution in Britain.

1. Why is normal, unpolluted rain water acidic?
2. What is the pH of unpolluted rain water?
3. Which acidic gases cause polluted rain?
4. How does sulphur dioxide get into the air?
5. How do cars contribute to acid rain problems?
6. What does acid rain do to stonework?
7. Gutters and drainpipes used to be made from iron. Nowadays they are usually made from plastic. Use the information above to suggest one reason why iron is no longer used.
8. How are fish being killed by acid rain?
9. How could the acid rain problem in Britain affect people in Norway?
10. Suggest a way of preventing acid rain.