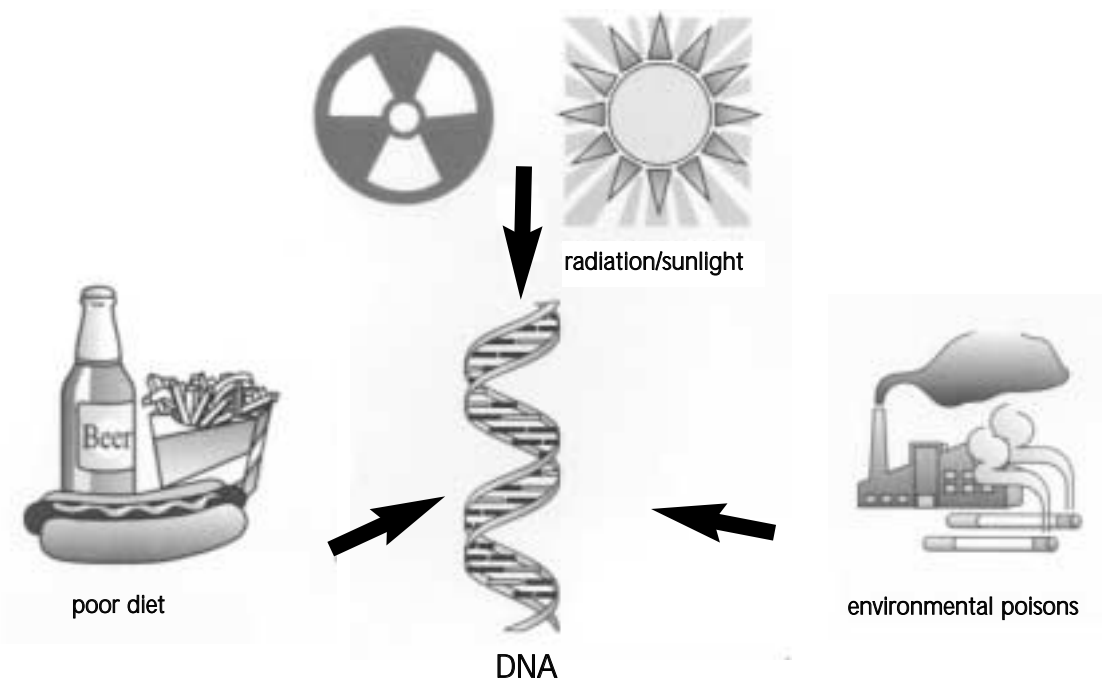


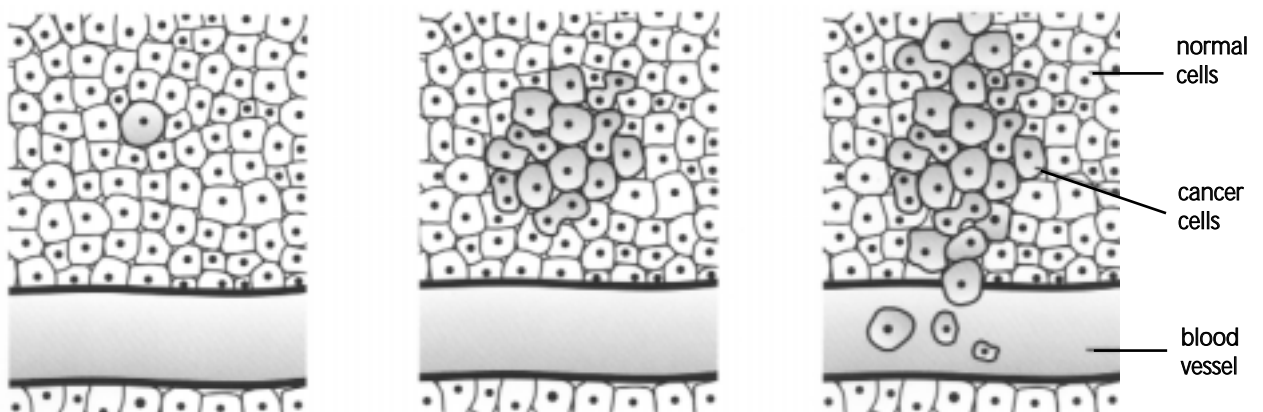
Activity 7. What causes cancer?

One in three people are likely to get cancer at some time in their life. One in four people will eventually die from the disease. Our bodies are made up of billions of cells. Inside these cells there are **genes**. Genes are made up of a chemical called **DNA**. The DNA contains the instructions needed for a cell to survive and reproduce. Healthy, human cells behave in a very controlled way. They grow, divide, stop dividing and eventually die. They make new skin, new blood and all the other tissues that make up our bodies. A cancer cell is a cell **'out of control'**. The DNA that makes up the genes inside the nucleus of a cancer cell is **damaged**.

The DNA inside the nucleus of a cell can be damaged in a number of ways.



The cell starts to divide and does not stop dividing. Eventually it may grow into a tumour. If a tumour is formed, some of the new cells can break away. They spread through the circulatory system to reach other parts of the body. Here they can start a new growth. If this happens the cancer spreads and becomes more difficult to treat.



cancer cells - dividing, forming a tumour and spreading

There are over 200 types of cancer. For example, over 80% of children survive leukaemia, the most common form of childhood cancer.

Scientists think that 80% of cancers could be avoided each year if

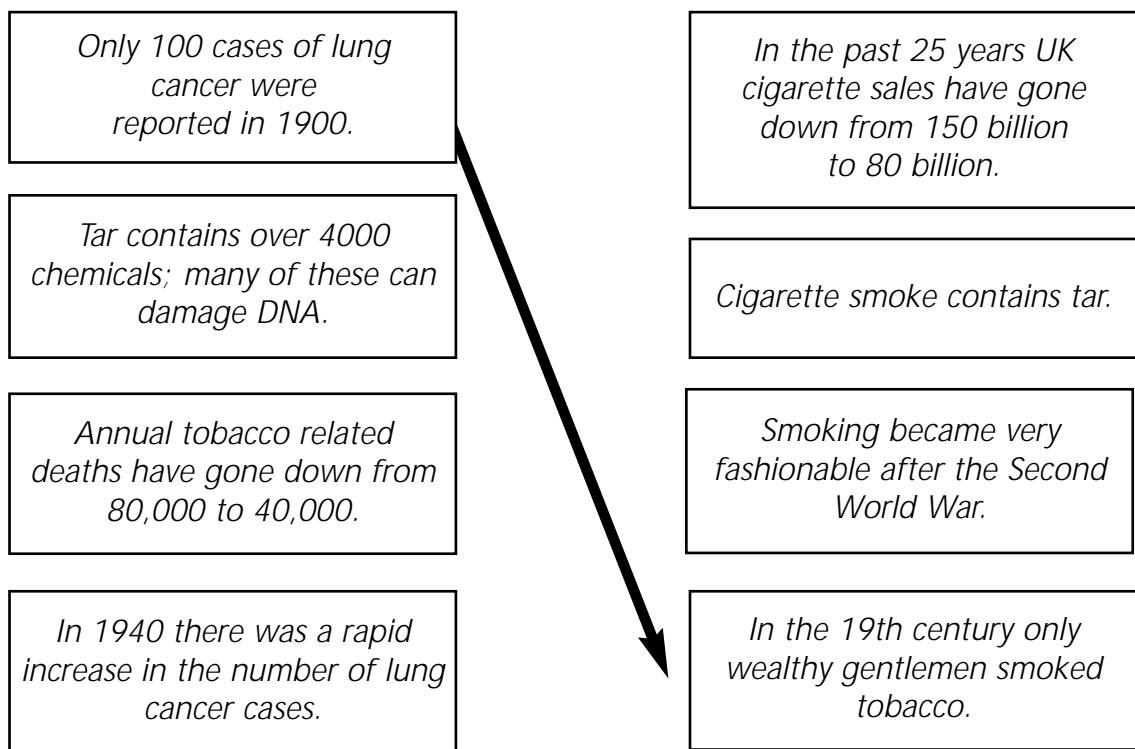
- people took care in the sun
- stopped smoking
- followed a healthy diet
- were screened regularly and were aware of the facts

One type of cancer that is proving hard to beat is **lung cancer**. In this activity you will consider some of the **evidence** to link smoking with lung cancer.

Two pupils Jane and John looked on the Internet to find out information about smoking and cancer.



(a) Read through the notes Jane and John made.



(b) Draw a line between two pieces of the information shown above, that you think are 'linked' in some way. An example is given.

(c) Write out a sentence to describe the link between each pair of the statements.

(d) Repeat this for the other three statements.
