

# Testing Drugs

## Student Worksheet

# 3

The following answers are based on pages 112 and 113:

- List three reasons why fewer people die from disease today compared with 70 years ago:
  - Improved diet.**
  - Better housing.**
  - More hygienic living conditions.****Others: vaccinations; development of drugs, e.g. antibiotics.**
- List three common diseases which can be relieved using drugs:
  - Diabetes.**
  - Epilepsy.**
  - Allergy, e.g. asthma, hayfever.****Others: heart disease; cancer.**
- Where (and in which organism) is a potential drug first tested?  
**In the laboratory in animals, e.g. rats, mice.**
- Who is it given to next?  
**Healthy human volunteers.**
- If the drug seems safe after the first two stages of testing, it is given to sick patients. These patients are often split into two groups, with one group receiving a 'placebo'. What is a placebo?  
**A placebo looks and tastes like the real drug, but is inactive.**
- Why is it that even doctors are not allowed to know which patients are given the placebo?  
**Some patients will feel better even when given an inactive drug. For the trial to be valid, this factor must be taken into account. The doctor must not have any pre-formed ideas of how each of the patients in the trial is expected to respond to the drug.**
- Give three examples of the side-effects associated with taking drugs:
  - Nausea.**
  - Hair loss (e.g. in the treatment of cancer).**
  - Addiction (e.g. to some tranquillisers, such as Valium).****Others: weight loss/gain; liver damage; poor skin; changes in behaviour.**

8. Name two disease which cannot be cured by drugs:

**(i) AIDS.**

**(ii) Some cancers.**

**Others: many genetic diseases (e.g. sickle cell anaemia, cystic fibrosis, muscular dystrophy), multiple sclerosis, Creutzfeld-Jakob disease, Alzheimers disease.**