

Timeline

Activity sheet A – Search for the magic bullet questions

- 1 What is a 'magic bullet'?
- 2
 - a) How was malaria treated before the introduction of modern drugs in the 20th Century?
 - b) Why is malaria more common in marshy areas?
 - c) What did Edward Stone believe about the cures for diseases?
 - d) Was Edward Stone correct in his idea about the cure for malaria?
- 3
 - a) Hoffmann tested his new drug on his father. What precautions are taken now before a new drug can be prescribed by doctors?
 - b) Aspirin helps to relieve the symptoms of disease. It can also help to prevent heart attacks and strokes. But it is not a cure. What is the difference between prevention and cure?
- 4
 - a) What do you think our clothing and other fabrics would look like if we had only natural dyes to colour them?
 - b) Why are some people worried about synthetic dyes, especially when they are used as food colouring?
- 5
 - a) Why is it helpful to stain cells before looking at them under the microscope?
 - b) What is the evidence from Slide 8 that some dyes are selective in dyeing particular parts of cells?
- 6
 - a) Why is it important that scientists publish their ideas and learn about the work of others?
 - b) Why did Ehrlich and his team have to test hundreds of substances to find a treatment for syphilis?
- 7
 - a) Why are diseases caused by bacteria less likely to be life threatening today than they were in the past?
 - b) Why can antibiotics be used to treat sore throats and ear infections but not the common cold?
 - c) Why are some antibiotics becoming less effective, so that hospital infections such as MRSA are on the increase?
- 8
 - a) Which part of a cell controls its growth and development?
 - b) What is cancer?
 - c) What can cause cells to start growing out of control to form a tumour?
 - d) Why is chemotherapy always likely to have unpleasant side effects?