

QCA LEVELS

Level statements

from QCA Assessing progress in science: scientific enquiry QCA/03/1144

IDEAS AND EVIDENCE

- 1 observe and describe simple events accurately
- 2 with help, make their own suggestions about how to collect data to answer questions
 agree or challenge observations described by peers
- 3 recognise why it is important to collect data to answer questions
 give reasons to support ideas or claims, when asked to do so
- 4 in their own investigative work, they decide on an appropriate approach (for example, using a fair test) to answer a question
 recognise that scientific ideas are based on evidence
 recognise that it is important to test ideas using evidence from observation and measurement
 begin to recognise that people may form opinions without considering evidence
- 5 describe how experimental evidence and creative thinking have been combined to provide a scientific explanation (for example, Jenner's work on vaccination at Key Stage 2, Lavoisier's work on burning at Key Stage 3)
 identify evidence that does, and some evidence that does not support a particular prediction
 support a prediction with evidence
 begin to appreciate that evidence needs to be related to the idea or question being tested
 begin to identify whether given conclusions are sufficiently supported by the evidence
 recognise that different people may interpret evidence in different ways
- 6 describe evidence for some accepted scientific ideas and explain how the interpretation of evidence by scientists leads to the development and acceptance of new ideas
 distinguish between evidence and opinion
 ensure that the evidence gathered is related to the idea or question being tested
 make a relevant prediction based on a conclusion or claim
- 7 describe some predictions based on scientific theories and give examples of the evidence collected to test these theories
 evaluate the evidence for and against a prediction
 say whether the techniques used to collect data are valid (that is, appropriate to the idea or question being investigated)
 decide whether there is sufficient evidence to support a conclusion