

# TELESCOPE

Curriculum links: England

## Key Stage 3

### SC1 Scientific enquiry

Ideas and evidence in science:

1. Pupils should be taught
  - a. about the interplay between empirical questions, evidence and scientific explanations using historical and contemporary examples
  - b. about the ways in which scientists work today and how they worked in the past, including the roles of experimentation, evidence and creative thought in the development of scientific ideas.

Investigative skills

Considering evidence:

- k. use observations, measurements and other data to draw conclusions

### SC2 Life processes and living things

Cells and cell functions

1. Pupils should be taught:
  - a. That animal and plant cells can form tissues, and tissues form organs
  - c. that fertilisation in humans and flowering plants is the fusion of a male and a female cell
  - d. to relate cells and cell functions to life processes in a variety of organisms

### BREADTH of STUDY

1. Pupils should be taught the Knowledge, skills and understanding through:
  - e. Considering the benefits and drawbacks of scientific and technological developments, including those related to the environment, health and quality of life
2. Communication: use scientific language, conventions and symbols, including SI units, word equations and chemical symbols, formulae and equations, where appropriate, to communicate scientific ideas and to provide scientific explanations based on evidence

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## Key Stage 4

### How Science works

#### Data, evidence theories and explanations

1. Pupils should be taught:
  - a. how interpretation of data , using creative thought, provides evidence to test ideas and develop theories
  - e. that there are some questions that science cannot currently answer, and some that science cannot address

#### Communication skills

2. Pupils should be taught:
  - a. recall, analyse, interpret, apply and question scientific information or ideas
  - b. present information, develop an argument and draw a conclusion, using scientific, technical and mathematical language, conventions, symbols and ICT tools.

#### Applications and implications of science

3. Pupils should be taught:
  - a. about the use of contemporary scientific and technological developments and their benefits, drawbacks and risks
  - b. to consider how and why decisions about science and technology are made, including those that raise ethical issues, and about the social, economic and environmental effects on such decisions
  - c. how uncertainties in scientific knowledge and scientific ideas change over time and about the role of the scientific community in validating these changes