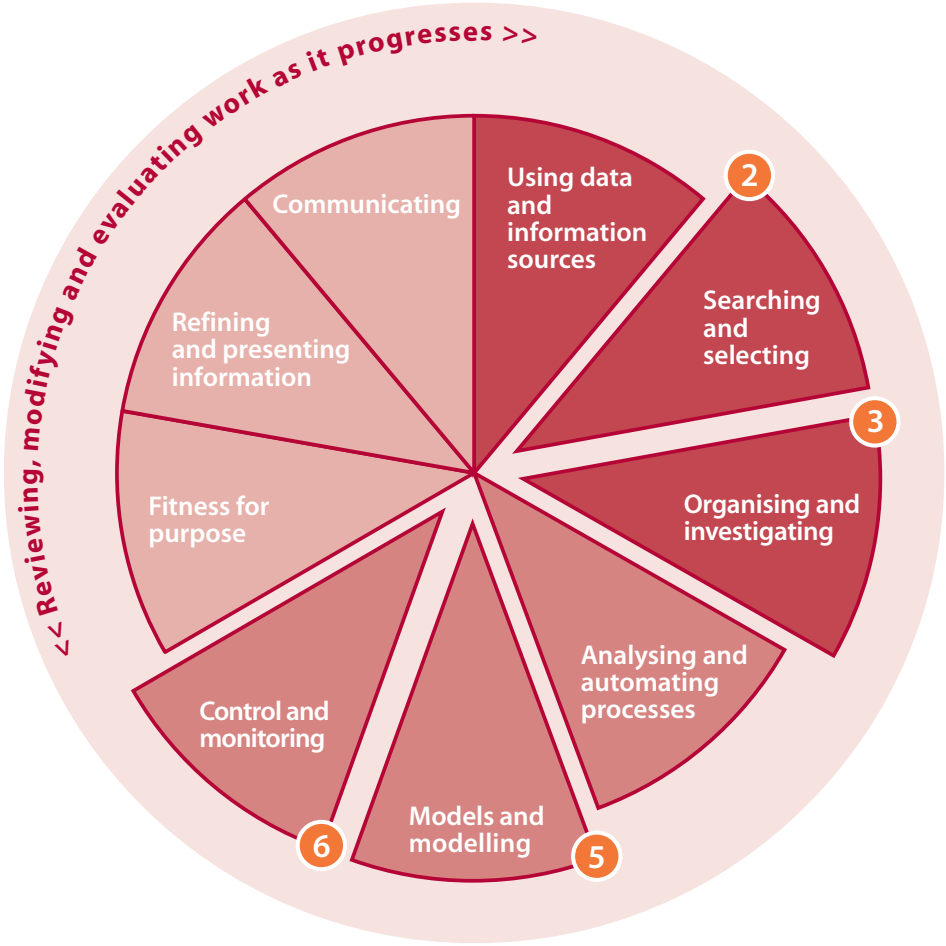
ICT Capability KS3

Key concepts



Key to ICT National Curriculum themes:

- Finding things out
- Developing ideas and making things happen
- Exchanging and sharing information
- Reviewing, modifying and evaluating work as it progresses

Science

The **National Curriculum programme of study for ICT** groups the knowledge, skills and understanding that pupils need to acquire into four themes. The Key Stage 3 Strategy publication entitled **Framework for teaching ICT capability: Years 7, 8 and 9** sub divides each of the first three themes into 3 key concepts.

The resulting **9 key concepts** shown in the diagram provide a useful way forward when considering the breadth of ICT capability. The fourth theme (Reviewing, modifying and evaluating work as it progresses) is a critical feature of ICT capability, which needs to be integrated throughout all areas.

Successful implementation of the ICT strand of the Key Stage 3 Strategy should afford greater opportunities for pupils to apply and develop their ICT capability in different subjects. Subject areas can build on and exploit pupils' ICT capability to enhance teaching and learning in their respective subjects.

Examples of where ICT key concepts can be applied and developed in Science are shown below.

2

Searching and selecting

ICT allows us to search and select from a variety of information sources. We can interrogate the data to identify correlations, recognise patterns, test hypotheses, make predictions and formulate judgements.

3

Organising and investigating

Within a scientific investigation, ICT allows us to collect and present data using appropriate structures. We can analyse findings and compare them with other information sources to check their validity and plausibility.

5

Models and modelling

ICT allows us to use models to develop scientific concepts and explore understanding by asking 'What if...' questions. We can modify rules and variables to explore the science of the model, predict outcomes and test hypotheses.

6

Control and monitoring

ICT allows us to monitor physical conditions and reflect upon the quality and quantity of the data collected. We can then use the data to explore and investigate hypotheses and draw conclusions.