

National curriculum science checklist: every statutory topic, Year 1 to Year 6

The topics below are the statutory headings in the Department for Education's programmes of study for science (2013, in force). Schools may teach a topic earlier than listed and use their own unit names; they may not leave one out. Tick each topic when the exercise book shows it; write the term it was taught.

Year	Statutory topic	Done	Term	Year	Statutory topic	Done	Term
Year 1	Plants	☐		Year 4	Living things and their habitats	☐	
Year 1	Animals, including humans	☐		Year 4	Animals, including humans	☐	
Year 1	Everyday materials	☐		Year 4	States of matter	☐	
Year 1	Seasonal changes	☐		Year 4	Sound	☐	
Year 2	Living things and their habitats	☐		Year 4	Electricity	☐	
Year 2	Plants	☐		Year 5	Living things and their habitats	☐	
Year 2	Animals, including humans	☐		Year 5	Animals, including humans	☐	
Year 2	Uses of everyday materials	☐		Year 5	Properties and changes of materials	☐	
Year 3	Plants	☐		Year 5	Earth and space	☐	
Year 3	Animals, including humans	☐		Year 5	Forces	☐	
Year 3	Rocks	☐		Year 6	Living things and their habitats	☐	
Year 3	Light	☐		Year 6	Animals including humans	☐	
Year 3	Forces and magnets	☐		Year 6	Evolution and inheritance	☐	
				Year 6	Light	☐	
				Year 6	Electricity	☐	

Working scientifically (taught through the topics, every year)

☐ KS1 (Years 1 and 2): ask simple questions; observe closely using simple equipment; perform simple tests; identify and classify; use observations and ideas to suggest answers; gather and record data

☐ Lower KS2 (Years 3 and 4): ask relevant questions; set up simple practical enquiries, comparative and fair tests; make systematic observations and measurements (thermometers, data loggers); record with tables and bar charts; report findings; draw simple conclusions

☐ Upper KS2 (Years 5 and 6): plan different types of enquiry; recognise and control variables; take measurements with precision and repeat readings; record with scatter graphs, bar and line graphs; report and present findings; identify evidence that supports or refutes ideas

What is tested

No statutory science test for every pupil at the end of KS2: teachers report whether the expected standard is met, and a national sample of schools sits a monitoring test every two years. The 11-plus includes science in a few regions only.

From

sciencewithshobha.com/blog/national-curriculum-science-what-is-taught-in-every-year-from-year-1-to-year-11-ks1-ks2-ks3-and-ks4-topics-by-year-group-working-scientifically-and-a-checklist/ · 1-on-1 online maths and science, KS2 to GCSE, Grades 3 to 8, free 30-minute first class.

Key Stage 3 (Years 7 to 9) and Key Stage 4 (GCSE, Years 10 and 11)

KS3 is set out by discipline; each school spreads the topics across Years 7, 8 and 9 in its own order. KS4 is covered by both routes: GCSE combined science (two grades, six papers) and the three separate GCSEs.

Key Stage 3 (18 topics)

Discipline	Statutory topic	Done	Discipline	Statutory topic	Done
Biology	Structure and function of living organisms	☐	Chemistry	The periodic table	☐
Biology	Material cycles and energy	☐	Chemistry	Materials	☐
Biology	Interactions and interdependencies	☐	Chemistry	Earth and atmosphere	☐
Biology	Genetics and evolution	☐	Physics	Energy	☐
Chemistry	The particulate nature of matter	☐	Physics	Motion and forces	☐
Chemistry	Atoms, elements and compounds	☐	Physics	Waves	☐
Chemistry	Pure and impure substances	☐	Physics	Electricity and electromagnetism	☐
Chemistry	Chemical reactions	☐	Physics	Matter	☐
Chemistry	Energetics	☐	Physics	Space physics	☐

Key Stage 4 (24 topics)

Discipline	Statutory topic	Done	Discipline	Statutory topic	Done
Biology	Cell biology	☐	Chemistry	Chemical analysis	☐
Biology	Transport systems	☐	Chemistry	Chemical and allied industries	☐
Biology	Health, disease and the development of medicines	☐	Chemistry	Earth and atmospheric science	☐
Biology	Coordination and control	☐	Physics	Energy	☐
Biology	Photosynthesis	☐	Physics	Forces	☐
Biology	Ecosystems	☐	Physics	Forces and motion	☐
Biology	Evolution, inheritance and variation	☐	Physics	Wave motion	☐
Chemistry	Atomic structure and the Periodic Table	☐	Physics	Electricity	☐
Chemistry	Structure, bonding and the properties of matter	☐	Physics	Magnetism and electromagnetism	☐
Chemistry	Chemical changes	☐	Physics	The structure of matter	☐
Chemistry	Energy changes in chemistry	☐	Physics	Atomic structure	☐
Chemistry	Rate and extent of chemical change	☐	Physics	Space physics	☐

The four hinges of GCSE, to check by the end of Year 9

☐ Balance a simple chemical equation and read a periodic table (group, period, atomic number)

☐ Draw a series and a parallel circuit and use $V = I \times R$

☐ Use speed = distance / time and energy = power x time, with units

☐ Plan a fair test: name the independent, dependent and control variables, and evaluate the method

GCSE: at least 15% of marks test the required practicals (8 per science in combined, 10 in separate) and 10% test maths skills (20% in physics).

Exams in May and June of Year 11, graded 9 to 1.