



St Benedict's CEVA Junior School Skills Progression

| Content Topics/context: | Year 3 | Year 4 | Year 5 | Year 6 |
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| <p>Please see National Curriculum document for notes and guidance</p> | <ul style="list-style-type: none"> • Plants (functions of parts of flowering plants, requirements for life and growth, water transportation, pollination, seed dispersal), • Animals, including humans (nutrition, skeletons and muscles), • Rocks, • Light (reflection, shadows) • Forces and magnets (friction, attraction and repulsion, magnetic materials, poles). | <ul style="list-style-type: none"> • Living things and their habitats,(grouping, keys, changes over time) • Animals including humans (digestive system, teeth, food chains), • States of matter (solids , liquids and gases, reversible changes of state, evaporation condensation the water cycle), • Sound,(vibrations, pitch, volume, distance) • Electricity (simple series circuits, switches, conductors and insulators) | <ul style="list-style-type: none"> • Living things and their habitats (life cycles of animals and plants), • Animals including humans (life stages and changes to old age), • Properties and changes of materials (properties of materials, dissolving, separating and filtering materials, uses of materials, reversible and irreversible changes) • Earth and Space, (spheres, movement earth, moon) • Forces (gravity, air resistance, water resistance, friction, levers, pulleys and gears). | <ul style="list-style-type: none"> • Living things and their habitats (classification of groups), • Animals including humans (heart and circulation, impact of drugs, exercise, diet and lifestyle on their bodies, nutrient and water transportation in animals), • Evolution and inheritance, • Light (travelling in straight lines, how we see things, mirrors, periscopes, rainbows etc.) • Electricity (batteries, brightness of lights, symbols for circuits). |
| Skills | Lower key Stage 2 Scientific Enquiry Skills | | Upper key Stage 2 Scientific Enquiry Skills | |
| Asking questions | 1. Raise their own relevant questions about the world around them | | 1. Use their science experiences to explore ideas and raise different kinds of questions | |
| Planning and setting up different types of enquiries | 2. Should be given a range of scientific experiences including different types of science enquiries to answer questions – see below | | 2. Talk about how scientific ideas have developed over time | |
| | 3. Start to make their own decisions about the most appropriate type of scientific enquiry they might use to answer questions | | 3. Select and plan the most appropriate type of scientific enquiry to use to answer scientific questions | |
| | 4. Set up simple practical enquiries, comparative and fair tests | | 4. Recognise when and how to set up comparative and fair tests | |
| | 5. Recognise when a simple fair test is necessary and help to decide how to set it up | | 5. Explain which variables need to be controlled and why | |
| Identifying and classifying | 6. Talk about criteria for grouping, sorting and classifying; and use simple keys | | 6. Use and develop keys and other information records to identify, classify and describe living things and materials | |
| | | | 7. Identify patterns that might be found in the natural environment | |



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| | 7. Recognise when and how secondary sources might help them to answer questions that cannot be answered through practical investigations | 8. Recognise which secondary sources will be most useful to research their ideas and begin to separate opinion from fact |
| Observing and measuring | 8. Make systematic and careful observations 9. Help to make decisions about what observations to make, how long to make them for and the type of simple equipment that might be used | 9. Make their own decisions about what observations to make, what measurements to use and how long to make them for |
| | 10. Begin to look for naturally occurring patterns and relationships and decide what data to collect to identify them | 10. Look for different causal relationships in their data and identify evidence that refutes or supports their ideas |
| | 11. Take accurate measurements using standard units 12. Learn how to use a range of (new) equipment, such as data loggers/ thermometers appropriately | 11. Choose the most appropriate equipment to make measurements with increasing precision and explain how to use it accurately. 12. Take repeat measurements where appropriate. |
| Gathering and recording data | 13. Collect and record data from their own observations and measurements in a variety of ways: notes, bar charts and tables, standard units, drawings, labelled diagrams, keys 14. help to make decisions about how to analyse this data | 13. Decide how to record data and results of increasing complexity from a choice of familiar approaches: scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs |
| | 15. With help, pupils should look for changes, patterns, similarities and differences in their data in order to draw simple conclusions and answer questions | 14. Identify scientific evidence that has been used to support or refute ideas or arguments |
| Reporting, presenting and communicating data/findings | 16. Use relevant simple scientific language to discuss their ideas 17. Communicate their findings in ways that are appropriate for different audiences, including oral and written explanations, displays or presentations of results and conclusions | 15. Use relevant scientific language and illustrations to discuss, communicate and justify their scientific ideas, 16. use oral and written forms such as displays and other presentations to report conclusions, causal relationships and explanations of degree of trust in results |
| Evaluating and improving | 18. With support, they should identify new questions arising from the data, making predictions for new values within or beyond the data they have collected and finding ways of improving what they have already done. | 17. Use their results to make predictions and identify when further observations, comparative and fair tests might be needed |
| | Types of scientific enquiry: | |
| | These types of scientific enquiry should include: observing over time; pattern seeking; identifying, classifying and grouping; comparative and fair testing (controlled investigations); and researching using secondary sources. | |
| | https://www.gov.uk/government/publications/national-curriculum-in-england-science-programmes-of-study/national-curriculum-in-england-science-programmes-of-study | |