# Year Group Expectations: Year 3

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| **4** | ▪ Suggest their own ideas on a concept and compare these with what they observe / find out.<br>▪ Use observations to suggest what to do next<br>▪ Discuss ideas and develop descriptions from their observations using relevant scientific language and vocabulary (from Y4 PoS)<br>▪ Observe and record relationships between structure and function or between different parts of a processes (linked to Y4 PoS)<br>▪ Observe and record changes /stages over time (linked to Y4 PoS) | ▪ Make a simple guide to local living things.<br>▪ Use guides or simple keys to classify / identify [animals, flowering plants and non-flowering plants].<br>▪ Use their observations to identify and classify<br>▪ Begin to give reasons for these similarities and differences.<br>▪ Record similarities as well as differences and/or changes related to simple scientific ideas or processes or more complex groups of objects/living things/events *(e.g. evaporation and condensation, different food chains, different electrical circuits)* | ▪ Ask/raise their own relevant questions with increasing confidence and independence that can be explored, observed, tested or investigated further<br>▪ Ask questions such as 'What will happen if…?" or 'What if we changed…? ( linked with Y4 PoS)<br>▪ Choose/select a relevant question that can be answered [by research or experiment / test]. | ▪ Make decisions about which information to use from a wide range of sources and make decisions about how to present their research<br>▪ Recognise when and how secondary sources might help them to answer questions that cannot be answered through practical investigations. | ▪ Make a visual representation or a model of something to represent something they have seen or a process that is difficult to see.<br>▪ Suggest their own ideas on a concept and compare these with models or images. | ▪ Make some decisions about an idea within a group *(e.g. I think we should find out by testing…)*<br>▪ Increasingly support, listen to and acknowledge others in the group<br>▪ Build on / add to someone else's idea to improve a plan.<br>▪ Understand that it is okay to disagree with their peers and offer reasons for their opinion |
| **3** | ▪ Observe and record relationships between structure and function (linked to Y3 PoS)<br>▪ Observe and record changes /stages over time (linked to Y3 PoS)<br>▪ Explore / observe things in the local environment / real contexts and record observations (linked to Y3 PoS) – see 'Communicating' section also re links to vocabulary | ▪ Decide ways and give reasons for sorting, grouping, classifying, identifying things/objects, living things, processes or events based on specific characteristics<br>▪ Compare and contrast and begin to consider the relationships between different things *(e.g. structures of plants, functions of plant parts, diets, skeletons of humans and other animals, changes over time, etc.)*<br>▪ Record similarities as well as differences *(e.g. what do all skeletons have? as well as the differences between skeletons* | ▪ Explore their own ideas about 'what if….?' scenarios e.g. humans did not have skeletons.<br>▪ Ask questions such as 'What if we tried….? or 'What if we changed…?'<br>▪ Begin to understand that some questions can be tested in the classroom and some cannot.<br>▪ Within a group suggest questions that can be explored, observed, tested or investigated further<br>▪ Within a group suggest relevant questions about what they observe and about the world around them. | ▪ Find things out using a range of secondary sources of information *(e.g. books, photographs, videos and other technology)* | ▪ Act out or make a model of something to represent something in the real world using appropriate scientific vocabulary verbally. | ▪ Begin to make some decisions about an idea within a group from a list of choices (e.g. let's put them all in a pile first OR I think we should try ….)<br>▪ With help; support, listen to and acknowledge others in the group *(e.g. Yes. I prefer that one too)*<br>▪ Build on / add to someone else's idea. *(e.g. we could use x and as well as y)*<br>▪ Begin to understand that it is okay to disagree with their peers and offer a reason for their opinion |
| **2** | ▪ Use simple scientific language from the year 2 PoS to talk about / **record** what they have noticed<br>▪ Use observations to make suggestions and/or ask questions<br>▪ **Observe** and describe simple processes/cycles/changes with several steps *(e.g. growth cycle, simple food chain, saying how living things depend on one another)*<br>▪ **Observe** closely and communicate with increasing accuracy the features or properties of things in the real world | ▪ **Name / Identify** common examples, some common features or different uses<br>▪ **Sort** and **group** objects, materials or living things by observable and/or behavioural features<br>▪ **Compare** and contrast… a variety of things [objects, materials or living things] - focusing on the similarities as well as the differences | ▪ Raise their own logical questions based on or linked to things they have observed<br>▪ With help / scaffolds, begin to ask questions such as 'What will happen if…?" | ▪ Talk about how useful the information source was and express opinion about findings<br>▪ Make suggestions about who to ask or where to look for information.<br>▪ Ask people questions to help them answer their questions<br>▪ Use simple and appropriate secondary sources (such as books, photographs, videos and other technology) to find things out / find answers | ▪ Act out something to represent something else about the world around us *(e.g a life cycle)* | ▪ Share ideas in a group and listen to the ideas of others<br>▪ Work cooperatively with others on a science task making some choices |
| | **EXPLORING / OBSERVING**<br>***KS1 - observing closely***<br>***Using their observations and ideas to suggest answers to questions***<br><br>***LKS2 - developing their own ideas & their understanding of the world around them*** | **GROUPING AND CLASSIFYING**<br>***KS1 - Compare and contrast a variety of examples linked to KS1 PoS***<br><br>***LKS2 - Compare and contrast a variety of examples linked to LKS2 PoS*** | **QUESTIONING**<br>***KS1 - asking simple questions***<br><br>***LKS2 - asking relevant questions*** | **RESEARCH**<br>***KS1 - finding things out using secondary sources of information***<br><br>***LKS2 - finding things out using a wide range of secondary sources of information*** | **MODELLING**<br>***using dance, drama or a visual aid to represent science in the real world*** | **COLLABORATING**<br>***interacting effectively as part of a group*** |

# Year Group Expectations: Year 3

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| **4** | ▪ Carry out simple **fair tests** with increasing confidence investigating the effect of something on something else (linked to Y4 PoS).<br>▪ Start to make their own decisions about the most appropriate type of science enquiry they might use to answer scientific questions *(is a fair test the best way to investigate their question?).*<br>▪ Make a **prediction** based on the knowledge acquired from previous explorations /observations and apply it to a new situation<br>▪ Explain their planning decisions and choices<br>▪ Make some of the planning decisions about what to change and measure/observe.<br>▪ Begin to recognise when a **fair test** is necessary. | ▪ Begin to identify where patterns might be found and use this to begin to identify what data to collect<br>▪ Make more of the decisions about what observations to make, how long to make them for and the type of equipment that might be used.<br>▪ Recognise obvious risks and how to keep themselves and others safe<br>▪ Learn how to use new equipment, such as data loggers & measure temperature in degrees Celsius (°C) using a thermometer.<br>▪ Collect data from their own observations and measurements, using notes/simple tables/standard **units**<br>▪ Make **accurate** measurements using standard **units** [and more complex units and parts of units] using a range of equipment and scales | ▪ Record findings using relevant scientific language and vocabulary (from Y4 PoS), including discussions, oral and written explanations, notes, drawings (annotated), pictorial representations, labelled diagrams, tables and bar charts [where intervals and ranges agreed through discussion], displays or presentations<br>▪ Begin to select the most useful ways to collect, record, classify and present data from a range of choices<br>▪ Make decisions on how best to communicate their findings in ways that are appropriate for different audiences | ▪ Notice/find patterns in their observations and data. (Describe the effect of something on something else) *(e.g. as I lengthen the ruler I notice that the pitch gets lower)*<br>▪ With some independence, analyse results / observations by writing a sentence that matches the **evidence**<br>▪ i.e. deciding the important aspect of the result and summarising in a **conclusion** *(e.g. metals tend to be good conductors of electricity)* | ▪ Begin to develop their ideas about relationships and interactions between things and explain them<br>▪ Use relevant scientific language and vocabulary (from Y4 PoS) to begin to say/explain *why* something happened | ▪ Use results to suggest improvements, new questions and/or predictions for setting up further tests<br>▪ Compare their results with others and give reasons why results might be different |
| **3** | ▪ Help to decide about how to set up a simple **fair test** and begin to recognise when a test is not **fair**.<br>▪ Make a **prediction** based on everyday experience<br>▪ With support/as a group, set up simple practical enquiries incl. comparative and **fair tests** e.g. make a choice from a list of a things (variables) to change when conducting a **fair test**. *(e.g. choose which magnets to compare and which method to use to test their strength).*<br>▪ As a group, begin to make some decisions about the best way of answering their qus.<br>▪ Find/suggest a practical way to compare things *e.g. rocks, magnets* | ▪ Collect data from their own observations and measurements using notes/ simple tables/standard units<br>▪ Help to make some decisions about what observations to make, how long to make them for, the type of simple equipment that might be used and how to work safely.<br>▪ Make simple **accurate** measurements using whole number standard **units**, using a range of equipment<br>▪ Gather data in a variety of ways to help in answering questions<br>▪ Use equipment **accurate**ly to improve the detail of their measurements/observations *(e.g. microscopes, measuring syringes, measuring cylinders, hand lenses)* | ▪ Record and present findings using simple scientific language and vocabulary from the year 3 PoS, *including discussions, oral and written explanations, notes, annotated drawings, pictorial representations, labelled diagrams, simple tables, bar charts (using scales chosen for them), displays or presentations*<br>▪ With scaffold / support record, and present data in a variety of ways to help in answering questions.<br>▪ Communicate their findings in ways that are appropriate for different audiences. (linked to Y3 PoS) | ▪ With scaffold/support, describe and compare the effect of different factors on something. *(e.g. we noticed that larger magnets are not always stronger)*<br>▪ With help, look for changes and simple patterns in their observations, data, chart or graph.<br>▪ Use their results to consider whether they met their **prediction**s. | ▪ Use their experience and some **evidence** or results to draw a simple **conclusion** to answer their original question.<br>▪ Write a simple explanation of why things happened (using the word 'because') and using simple scientific language and vocabulary from the year 3 PoS | ▪ Say whether what happened was what they expected and notice any results that seem odd.<br>▪ Begin to recognise when a test is not **fair** and suggest improvements. |
| **2** | ▪ Carry out simple comparative tests as part of a group, following a **method** with some independence<br>▪ Make a simple prediction about what might happen and try to give a vague reason (even though it might not be correct)<br>▪ With support, make suggestions on a **method** for setting up a simple comparative test<br>▪ Talk about a practical way to find answers to their questions | ▪ **Measure** using non-standard and simple standard measures (e.g. cm, time) with increasing accuracy<br>▪ Begin to make decisions about which equipment to use<br>▪ Correctly and safely use **equipment** provided to make observations and/or take simple measurements | ▪ **Record** and communicate their findings in a range of ways to a variety of audiences<br>▪ Use simple scientific language with increasing accuracy (from year 2 PoS)<br>▪ **Record** simple data with some accuracy to help in answering questions:<br>– With support or using frameworks, make decisions about how to complete a variety of tables/charts *(e.g. a 2 column table, tally charts, Venn diagram, pictograms, block graphs with 1:1 scale).*<br>– *Present findings in a class displays*<br>– *Sequence / annotate photographs of change over time*<br>▪ *Produced increasingly detailed drawings which are labelled/annotated* | ▪ With guidance, begin to notice **patterns** in their data e.g. order their findings, sequence best to worst, say what happened over time, etc.<br>▪ Recognise if **results** matched **prediction**s. (say if results were what they expected)<br>▪ Use their recordings to talk about and describe what has happened | ▪ Begin to use simple scientific language (from year 2 PoS) to explain what they have found out.<br>▪ Give a simple, logical reason why something happened *(e.g. I think … because …)* | ▪ Begin to discuss if the test was un**fair** |
| | **PLANNING AND TESTING**<br>***KS1 - performing simple tests***<br>***LKS2 - making decisions about and setting up simple practical enquiries, comparative tests and fair tests*** | **USING EQUIPMENT AND MEASURES**<br>***KS1 - Using simple equipment and gathering data to help in answering their questions***<br>***LKS2 - making accurate measurements and gathering data*** | **COMMUNICATING**<br>***Reporting findings, recording data, presenting findings***<br>***Read, spell and pronounce scientific vocabulary correctly linked to the relevant Yr Grp*** | **CONSIDERING THE RESULTS OF AN INVESTIGATION / WRITING A CONCLUSION**<br>**DESCRIBING RESULTS / LOOKING FOR PATTERNS**<br>***KS1 - Talk about what happened / what they noticed***<br>***LKS2 - Describing their findings / results*** | | **EXPLAINING RESULTS**<br>***KS1 - talk about what they found out***<br>***LKS2 - reporting on findings saying why something happened*** | **TRUSTING RESULTS**<br>***KS1 – beginning to spot when a method is not fair***<br>***LKS2 - suggest improvements for further tests*** |