

| EXPECTATIONS | | SEEN | SECURE |
|---|--|------|--------|
| Working Scientifically | | | |
| 1 | I can ask simple scientific questions. | | |
| 2 | I can use simple equipment to make close observations | | |
| 3 | I can carry out simple tests | | |
| 4 | I can identify and classify things. | | |
| 5 | I can use observations and ideas to suggest answers to scientific questions. | | |
| 6 | I can gather and record data to help answering a question. | | |
| 7 | I can read, and attempt to pronounce and use scientific vocabulary accurately. | | |
| Seasonal Changes – Observation over time | | | |
| 8 | I can name the four seasons. (Autumn, Spring, Summer and Winter). | | |
| 9 | I can observe and describe the changes across the four seasons (eg. changes to trees, temperature, weather type, length of daylight etc). | | |
| 10 | I can observe and describe the weather associated with each season. (Autumn, Spring, Summer and Winter). | | |
| 11 | I can read, attempt to spell, pronounce and use scientific vocabulary linked to Seasonal Changes. | | |
| Plants – Sorting and Classifying. | | | |
| 12 | I can name, identify and compare a variety of common wild and garden plants including deciduous and evergreen trees. | | |
| 13 | I can identify and describe the basic structure of common flowering plants (Leaves, flowers, petals, leaves, stem, root and bulb/seed of a plant). | | |
| 14 | I can identify the basic structure of trees (roots, trunk, branches, leaves, blossom and fruit). | | |
| 15 | I can read, attempt to spell, pronounce and use scientific vocabulary linked to plants. | | |
| Animals including Humans – Pattern Seeking / Surveys | | | |
| 16 | I can name and identify a variety of animals including fish, amphibians, reptiles, birds and mammals. | | |
| 17 | I can sort animals into categories, describe and compare them based on their structure (including fish, amphibians, reptiles, birds and mammals). | | |
| 18 | I can begin to name and identify animals, which are carnivores, herbivores and omnivores. | | |
| 19 | I can group animals by what they eat (carnivore, herbivore and omnivores). | | |
| 20 | I can name, draw and label the basic parts of the human body that I can see. (head, neck, arm, elbow, leg, knee, face, ear, eyes, hair, mouth and teeth). | | |
| 21 | I can say which part of the human body is linked to each sense (touch, taste, sight, hearing, smell). | | |
| 22 | I can read, attempt to spell, pronounce and use scientific vocabulary linked to animals and humans. | | |
| Everyday Materials – Fair Testing | | | |
| 23 | I can distinguish between an object and the material it is made from. | | |
| 24 | I can name and identify and name a variety of everyday materials including: wood, plastic, glass, metal, water, rock and along with any other material they recognise in our community. | | |
| 25 | I can describe the physical properties of everyday materials (hard/soft, stretchy/stiff, shiny/dull, rough/smooth, bendy/not bendy, waterproof/not waterproof, absorbent/not absorbent). | | |
| 26 | I can group and compare everyday materials based on their simple physical properties. | | |
| 27 | I can read, attempt to spell, pronounce and use scientific vocabulary linked to Everyday materials. | | |

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| | Forces (links to everyday materials) | | |
| 28 | I can describe and compare how things move (slow, fast, turn, location). | | |
| 29 | I know that pushing and pulling things can make an object start or stop moving. | | |
| 30 | I can identify the similarities and differences between the movements of different objects. | | |
| 31 | I can identify what has caused movement (wind, water, sand, springs etc). | | |
| 32 | I can read, attempt to spell, pronounce and use scientific vocabulary accurately linked to forces | | |
| | Light and Sound (links to senses and seasons unit) | | |
| 33 | I can explore how we hear sound using our sense of hearing. | | |
| 34 | I can explore and describe the different sounds made by different objects. | | |
| 35 | I can describe the differences between night and day. | | |
| 36 | I know which senses help me find things in the dark when I cannot see. | | |
| 37 | I can compare different sources of light (brightness/colour). | | |
| 38 | I can investigate which sources of light work best in the dark. | | |
| 39 | I can read, attempt to pronounce and use scientific vocabulary accurately linked to light and sound. | | |

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| 4 | I can identify and classify things. | | |
| 5 | I can use observations and ideas to suggest answers to scientific questions. | | |
| 6 | I can gather and record data to help answering a question. | | |
| 7 | I can read, spell, pronounce and use scientific vocabulary accurately. | | |
| Living Things and Their Habitats – Pattern Seeking / Sorting and Classifying | | | |
| 8 | I can explore and compare the differences between things that are living and dead and things that have never been alive recording observations using charts. | | |
| 9 | I can identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants. | | |
| 10 | I can compare animals in familiar habitats with animals in less familiar habitats (eg. seashore, woodland, ocean and rainforest). | | |
| 11 | I can identify and name a variety of plants and animals in their habitats, including micro-habitats. | | |
| 12 | I can describe how plants and animals depend on each other. | | |
| 13 | I can describe how animals obtain their food from plants and other animals, using the idea of a simple food chain. | | |
| 14 | I can identify and name different sources of food for animals. | | |
| 15 | I can read, spell, pronounce and use scientific vocabulary accurately linked to living things and their habitats. | | |
| Plants – Observation over time | | | |
| 16 | I can observe and describe how seeds and bulbs grow into mature plants. | | |
| 17 | I can find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. | | |
| 18 | I can tell someone what a plant needs to stay healthy. | | |
| 19 | I understand that seeds and bulbs need water but most do NOT need light as they have their own store of food inside them. | | |
| 20 | I can read spell, pronounce and use scientific vocabulary linked to plants. | | |
| Animals including Humans – Pattern Seeking / Surveys | | | |
| 23 | I know that animals, including humans, have offspring which grow into adults. | | |
| 24 | I can find out about and describe the basic needs of animals, including humans, for survival (water, food and air). | | |
| 25 | I can describe the importance of exercise for humans. | | |
| 26 | I can describe the importance of eating the right amount of different food types for humans. | | |
| 27 | I can describe the importance of hygiene for humans. | | |
| | I can read spell, pronounce and use scientific vocabulary linked to animals and humans. | | |
| Everyday Materials – Fair Testing | | | |
| 28 | I can identify and compare the suitability of a variety of everyday materials, including wool, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. | | |
| 29 | I know that some everyday materials are used for more than one thing. eg metal for coins, cans cars etc | | |

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| 30 | I can find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. | | |
| 31 | I can think about the properties of materials that make them suitable or unsuitable for particular purposes. | | |
| 32 | I can find out about people who have developed useful new materials (eg. John Dunlop, Charles Macintosh or John McAdam) | | |
| 33 | I can read spell, pronounce and use scientific vocabulary linked to Everyday materials. | | |
| | Electricity | | |
| 34 | I can identify and name everyday appliances that require electricity to create light, heat, sound or movement. | | |
| 35 | I can identify and name everyday appliances that require electricity to do more than one thing (computer, TV, washing machine). | | |
| 36 | I can identify and name everyday appliances that use batteries to supply the electricity. | | |
| 37 | I can describe the dangers of electricity and describe how to use it correctly. | | |
| 38 | I can read, spell, pronounce and use scientific vocabulary accurately linked to electricity. | | |

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| Working Scientifically | | | |
| 1 | I can ask relevant scientific questions and use a scientific question to answer them. | | |
| 2 | I can set up simple, practical enquiries, comparative and fair test to explore a scientific question. | | |
| 3 | I can make a prediction with a reason | | |
| 4 | I can make systematic and careful observations using thermometers and data loggers to answer scientific questions. | | |
| 5 | I can gather, record, classify and present data in a variety of ways that help to answer questions. | | |
| 6 | I can use my findings to report in a variety of ways, including oral and written explanations, presentations using simple scientific language. | | |
| 7 | I can record my findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables. | | |
| 8 | I can use my findings to report in a variety of ways, including oral and written explanations, displays or presentations of results and conclusions using simple scientific language. | | |
| 9 | I can draw simple conclusions from my results and suggest an improvement. | | |
| 10 | I can identify differences, similarities and changes related to an enquiry. | | |
| 11 | Use straightforward scientific evidence to answer questions or support my findings | | |
| 12 | I can read, spell, pronounce and use scientific vocabulary accurately. | | |
| Plants – Observations over time | | | |
| 14 | I can identify the function of different parts of a flowering plant and trees. (roots, stem/trunk, leaves and flowers). | | |
| 15 | I can describe the function of different parts of flowering plants and trees (roots, stem/trunk, leaves and flowers). | | |
| 16 | I can explore and describe the needs of different plants for survival (light, air, water, nutrients and room to grow). | | |
| 17 | I can investigate and describe the process of how water is transported in plants. | | |
| 18 | I can describe the basic life cycle of a flowering plant (pollination, seed formation and seed dispersal) | | |
| 19 | I can read, spell, pronounce and use scientific vocabulary accurately linked to plants. | | |
| Animals, including humans – Pattern Seeking | | | |
| 20 | I can explain the importance of a nutritious, balanced diet for animals and humans. | | |
| 21 | I can explain in simple terms how nutrients, water and oxygen are transported within animals and humans. | | |
| 22 | I can describe the purpose of the skeleton in humans and animals (support, protection and movement). | | |
| 23 | I can compare the main bones in the human skeleton to an animal's skeleton. | | |
| 24 | I can describe and explain the muscular system of a human (support and movement) | | |
| 25 | I can read, spell, pronounce and use scientific vocabulary accurately linked to animals, including humans. | | |
| Rocks – Sorting and Classifying | | | |
| 26 | I can compare and group rocks based on their appearances. | | |
| 27 | I can give a reason for the grouping of my rocks. (describe the difference between sedimentary and igneous rock) | | |
| 28 | I can describe how a fossil is formed. | | |
| 29 | I can describe how soil is made. | | |
| 30 | I can read spell, pronounce and use scientific vocabulary linked to rocks. | | |
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| | Light – Pattern Seeking | | |
| 31 | I can describe what dark is (absence of light). | | |
| 32 | I can explain that light is needed in order to see things. | | |
| 33 | I know that light is reflected from some surfaces. | | |
| 34 | I can investigate and describe how a shadow is formed. | | |
| 35 | I can find patterns in the way the size of shadows change. | | |
| 36 | I can explain the danger of direct sunlight and how to protect my eyes. | | |
| 37 | I can read spell, pronounce and use scientific vocabulary linked to light. | | |
| | Forces and Magnets – Fair Testing | | |
| 38 | I can investigate and compare how objects move on different surfaces. | | |
| 39 | I can explain how some forces require contact and some do not, giving examples. | | |
| 40 | I can explore and explain how objects attract and repel in relation to objects and other magnets. | | |
| 41 | I can predict whether objects will be magnetic and carry out an enquiry to test this. | | |
| 42 | I can identify magnetic materials and explain how I know. | | |
| 43 | I can describe how a magnet works using 2 poles. | | |
| 44 | I can predict whether magnets will attract or repel and give a reason. | | |
| 45 | I can read spell, pronounce and use scientific vocabulary linked to forces and magnets | | |

| | EXPECTATIONS | SEEN | SECURE |
|----|--|------|--------|
| | Working Scientifically | | |
| 1 | I can ask relevant scientific questions and use different types of scientific enquiries to answer them. | | |
| 2 | I can set up simple, practical enquiries, comparative and fair test to explore a scientific question. | | |
| 3 | I can make a prediction with a reason | | |
| 4 | I can make systematic and careful observations and where appropriate take accurate measurements using standard units using a range of equipment including thermometers and data loggers. | | |
| 5 | I can gather, record, classify and present data in a variety of ways that help to answer questions. | | |
| 6 | I can choose how to record my findings using simple scientific language eg. labelled diagrams, keys, bar charts and tables. | | |
| 7 | I can use my findings to report in a variety of ways, including oral and written explanations, displays or presentations of results and conclusions using simple scientific language. | | |
| 8 | I can use my results to draw simple conclusions, make predictions for new values, suggest further improvements and raise further questions. | | |
| 9 | I can identify differences, similarities or changes related to simple scientific ideas and processes. | | |
| 10 | Use straightforward scientific evidence to answer questions or support my findings | | |
| 11 | I can read, spell, pronounce and use scientific vocabulary accurately. | | |
| | Living Things and their Habitats – Sorting, classifying and Grouping | | |
| 14 | I can group living things in different ways. | | |
| 15 | I can use classification keys to group, identify and name living things (in the local and wider environment). | | |
| 16 | I can create classification keys to group, identify and name living things (for others to use) | | |
| 17 | I can describe how changes to an environment could endanger living things. | | |
| 18 | I can read, spell, pronounce and use scientific vocabulary accurately linked to living things and habitats. | | |
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| | Animals, including humans – Observation over time/ Fair Testing | | |
| 19 | I can name and identify the basic parts (organs) of the human digestive system. | | |
| 20 | I can describe the functions of the basic parts (organs) in the human digestive system. | | |
| 21 | I can name and identify the different types of teeth in humans. | | |
| 22 | I can describe the functions of different human teeth. | | |
| 23 | I can use and construct food chains to identify producers, predators and prey. | | |
| 24 | I can read, spell, pronounce and use scientific vocabulary accurately linked to animals and humans. | | |
| | States of Matter – Sorting and Classifying/Pattern Seeking | | |
| 25 | I can group materials based on their state of matter (solid, liquid, gas). | | |
| 26 | I can compare materials based on their state of matter (solid, liquid, gas). | | |
| 27 | I can investigate and describe how some materials can change state when they are heated. | | |
| 28 | I can investigate and describe how some materials can change state when they are cooled. | | |
| 29 | I can identify the temperature for when materials change state | | |
| 30 | I can describe the water cycle. | | |
| 31 | I can explain the part played by evaporation and condensation in the water cycle. | | |
| 32 | I can read, spell, pronounce and use scientific vocabulary accurately linked to states of matter. | | |

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| Sound – Pattern Seeking | | | |
| 33 | I can identify how sound is made (vibrations) | | |
| 34 | I can explain how sound travels through a medium from a source to our ears. | | |
| 35 | I can find patterns between the pitch of a sound and the features of the object that produced it. | | |
| 36 | I can find patterns between the volume of a sound and the strength of the vibrations that produced it. | | |
| 37 | I can describe what happens to a sound as it travels away from its source. | | |
| 38 | I can read spell, pronounce and use scientific vocabulary linked to sound. | | |
| Electricity – Pattern Seeking | | | |
| 39 | I can identify and name appliances that require electricity to work. | | |
| 40 | I can construct a simple series circuit. | | |
| 41 | I can identify and name the components in a simple series circuit, (incl cells, wires, bulbs, switches, and buzzers). | | |
| 42 | I can draw a simple circuit diagram using pictures. | | |
| 43 | I can predict and test whether a lamp will light within a series circuit. based on whether or not the lamp is part of a complete loop with a battery | | |
| 44 | I can describe the functions of a switch. | | |
| 45 | I can predict whether a lamp will light based on the position of a switch (open/closed). | | |
| 46 | I know what a conductor and an insulator is. | | |
| 47 | I can identify common conductors and insulators. | | |
| 48 | I can read spell, pronounce and use scientific vocabulary linked to electricity. | | |

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| Working Scientifically | | | |
| 1 | I can plan different types of scientific enquiries to answer questions. | | |
| 2 | I can control variables in an enquiry. | | |
| 3 | I can measure accurately and precisely using a range of equipment. | | |
| 4 | I can take repeat readings when appropriate to ensure accuracy. | | |
| 5 | I can record data and results using scientific diagrams and labels, classification keys, tables, bar and line graphs. | | |
| 6 | I can use the outcome of test results to make predictions and discuss further comparative test. | | |
| 7 | I can report and present my findings from an enquiry in oral and written forms such as displays and other presentations. | | |
| 8 | I can begin to explain a conclusion from an enquiry. | | |
| 9 | I can begin to explain causal relationships in an enquiry. | | |
| 10 | I can relate the outcome from an enquiry to scientific knowledge in order to state whether evidence supports or disproves an argument or theory. | | |
| 11 | I can read, spell, pronounce and use scientific vocabulary accurately. | | |
| Earth and Space – Observation over time | | | |
| 12 | I can describe and explain the movement of the Earth and other planets relative to the Sun in the solar system. (I know that the sun is a star) | | |
| 13 | I can describe the movement of the Moon relative to the Earth. | | |
| 14 | I can describe the Sun, Earth and Moon as approximately spherical bodies | | |
| 15 | I can explain and demonstrate how night and day are created with reference to the sun's movement across the sky. | | |
| 16 | I can read spell, pronounce and use scientific vocabulary linked to Earth and Space including naming the 8 planets in the solar system. | | |
| Forces – Pattern Seeking | | | |
| 17 | I can explain what gravity is and how it acts between the Earth and the unsupported objects on it. | | |
| 18 | I can identify and explain the effects of air resistance that act between moving surfaces. | | |
| 19 | I can identify and explain the effects of water resistance that act between moving surfaces. | | |
| 20 | I can identify and explain the effects of friction that act between moving surfaces. | | |
| 21 | I can use diagrams to show the direction and strength of the force | | |
| 22 | I can recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect. | | |
| 23 | I can read spell, pronounce and use scientific vocabulary linked to Forces. | | |
| Properties and Changes of Materials – Fair Testing/Classifying and Grouping | | | |
| 24 | I can compare and group materials based on their properties (eg. hardness, solubility, transparency, conductivity), [electrical and thermal] and response to magnets. | | |
| 25 | I can give reasons for the use of everyday materials including metal, wood and plastic based on evidence from comparative and fair tests. | | |
| 26 | I can describe how a material dissolves to form a solution; explaining the process of dissolving. | | |
| 27 | I can describe and demonstrate how some materials can be separated using our knowledge of solids, liquids and gases: through filtering, sieving and evaporating. | | |
| 28 | I can use my knowledge of solids, liquids and gases to select the correct method to recover a substance from a solution. | | |

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| Properties and Changes of Materials – Fair Testing/Classifying and Grouping Continued... | | | |
| 29 | I know that some changes are reversible and some are not. | | |
| 30 | I can explain how some changes result in the formation of a new material and that this is usually reversible. | | |
| 31 | I can identify reversible and irreversible changes and explain how I know. | | |
| 32 | I can read spell, pronounce and use scientific vocabulary linked to properties and changes of materials. | | |
| Animals, including humans – Research | | | |
| 33 | I can describe the changes of stages of growth in humans (to old age). | | |
| 34 | I can describe the changes in my body during puberty | | |
| 35 | I can read spell, pronounce and use scientific vocabulary linked to animals and humans accurately. | | |
| Living Things and their Habitats – Pattern Seeking | | | |
| 36 | I can describe the life cycle of a mammal, an amphibian, an insect and a bird. | | |
| 37 | I can describe the differences in life cycles between a mammal, an amphibian, an insect and a bird. | | |
| 38 | I can describe the process of reproduction in plants. | | |
| 39 | I can describe the process of reproduction in animals | | |
| 40 | I can read spell, pronounce and use scientific vocabulary linked to living things and their habitats accurately. | | |

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| 1 | I can plan different types of scientific enquiries to answer questions. | | |
| 2 | I can control variables in an enquiry. | | |
| 3 | I can measure accurately and precisely using a range of equipment, including newton metres. | | |
| 4 | I can take repeat readings when appropriate to ensure accuracy. | | |
| 5 | I can record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. | | |
| 6 | I can use the outcome of test results to make predictions and set up a further comparative test. | | |
| 7 | I can choose the most efficient method to report findings from enquiries. | | |
| 8 | I can explain a conclusion from an enquiry. | | |
| 9 | I can explain causal relationships in an enquiry with an explanation of the degree of trust in results. | | |
| 10 | I can relate the outcome from an enquiry to scientific knowledge in-order to state whether evidence supports or disproves an argument or theory. | | |
| 11 | I can read, spell and pronounce scientific vocabulary accurately. | | |
| | Living Things and their Habitats – Classifying and Sorting | | |
| 12 | I can describe how living things are classified into broad groups according to common observable characteristics including micro-organisms, plants and animals | | |
| 13 | I can describe how living things are classified into broad groups based on similarities and differences, including micro-organisms, plants and animals. | | |
| 14 | I can give reasons for classifying plants and animals based on specific characteristics. | | |
| 15 | I know the broad groupings, such as micro-organisms can be sub-divided. | | |
| 16 | I can classify animals into commonly found invertebrates (such as insects, spiders, snails worms) and vertebrates (fish, amphibians, reptiles, birds and mammals). | | |
| 17 | I can discuss reasons why living things are placed in one group and not another. | | |
| 18 | I can find out about the significance of the work of scientists such as Carl Linnaeus, a pioneer of classification | | |
| 19 | I can read, spell and pronounce scientific vocabulary accurately linked to living things and habitats. | | |
| | Animals, including humans – Pattern Seeking | | |
| 20 | I can identify and name the main parts of the human circulatory system. | | |
| 21 | I can describe the functions of the heart, blood vessels and blood. | | |
| 22 | I can describe how and which nutrients and water are transported within animals, including humans. | | |
| 23 | I recognise the impact of diet, exercise, drugs and lifestyle on the way our bodies function. | | |
| 24 | I know that some drugs and other substances can be harmful to the human body. | | |
| 25 | I can read, spell and pronounce scientific vocabulary accurately linked to animals, including humans. | | |
| | Evolution and inheritance – Observation over time | | |
| 26 | I recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago. | | |
| 27 | I recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents. | | |
| 28 | I know that characteristics are passed from parents to their offspring. (eg. different breeds of dogs) | | |
| 29 | I can identify how animals and plants are adapted to suit their environments in different ways. | | |
| 30 | I know that adaptation may lead to evolution. | | |
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| 31 | I know that variation in offspring over time can make animals more or less able to survive in particular environments. | | |
| 32 | I can find out about the work of palaeontologists such as Mary Anning and how Charles Darwin and Alfred Wallace developed their ideas on evolution. | | |
| 33 | I can read, spell and pronounce scientific vocabulary accurately linked to evolution and inheritance. | | |
| Light – Pattern Seeking and Surveys | | | |
| 34 | I can recognise that light appears to travel in straight lines. | | |
| 35 | I can use the idea that light travels in straight lines to explain how objects are seen (detail light from a light source will reflect off an object into our eyes). | | |
| 36 | I can explain that we see things because light travels from a light source to our eyes or from light sources to objects and then to our eyes. | | |
| 37 | I can use the idea that light travels in straight lines to explain why shadows have the same shape as the object that cast them. | | |
| 38 | I can read, spell and pronounce scientific vocabulary accurately linked to light. | | |
| Electricity – Fair Testing | | | |
| 39 | I can associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in a circuit. | | |
| 40 | I can compare and give reasons for variations in how components function, including brightness of bulbs, the loudness of buzzers and the on/off position. | | |
| 41 | I can use recognised symbols when representing a simple circuit diagram. | | |
| 42 | I can construct simple series circuits. | | |
| 43 | I can identify the effect of changing one component at a time in a circuit. | | |
| 44 | I can read, spell and pronounce scientific vocabulary accurately linked to electricity. | | |