**Year 2**

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| **Animals including humans:**  notice that animals, including humans, have offspring which grow into adults  find out about and describe the basic needs of animals, including humans, for survival (water, food and air)  describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. | **Questions:** They should ask people questions and use simple secondary sources to find answers. | **Tests:**  They should use simple measurements and equipment (for example, hand lenses, egg timers) to gather data, carry out simple tests, record simple data, and talk about what they have found out and how they found it out. With help, they should record and communicate their findings in a range of ways and begin to use simple scientific language.   * **Test effect of exercise on body using minute timers and senses, predict what will happen – sweating, out of breath, breathing faster, muscle ache, thirsty, raised heartbeat** |
| **Equipment:** They should use simple measurements and equipment (for example, hand lenses, egg timers) | **Identifying and classifying:**  They should use simple features to compare objects, materials and living things and, with help, decide how to sort and group them.   * **Healthy eating – designing a healthy meal – looking at food groups** |
| **Data gathering:** observing, through video or first-hand observation and measurement | **Changes over time:**  Observe changes over time, and, with guidance, they should begin to notice patterns and relationships.   * **Lifecycles – human – how we change as we grow – what can we do differently at each stage of our lives?** |
| **Other links/information:** | |
| **Living things and their habitats:**   * explore and compare the differences between things that are living, dead, and things that have never been alive   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, and how they depend on each other  identify and name a variety of plants and animals in their habitats, including micro-habitats  describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food. | **Questions:** They should ask people questions and use simple secondary sources to find answers. | **Tests:**  They should use simple measurements and equipment (for example, hand lenses) to gather data, carry out simple tests, record simple data, and talk about what they have found out and how they found it out. With help, they should record and communicate their findings in a range of ways and begin to use simple scientific language. |
| **Equipment:** They should use simple measurements and equipment (for example, hand lenses) | **Identifying and classifying:**  They should use simple features to compare objects, materials and living things and, with help, decide how to sort and group them.   * **Minibeast hunt on school grounds – using magnifying glasses, classification charts, bug catchers** * **Comparison of minibeasts – number of legs / wings etc** |
| **Data gathering: :** observing, through video or first-hand observation and measurement | **Changes over time:**  Observe changes over time, and, with guidance, they should begin to notice patterns and relationships.   * **Lifecycles - caterpillars** |
| **Other links/information:** | |
| **Use of every day materials**:   * identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses   find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. | **Questions:** They should ask people questions and use simple secondary sources to find answers. | **Tests:**  They should use simple measurements and equipment (for example, hand lenses) to gather data, carry out simple tests, record simple data, and talk about what they have found out and how they found it out. With help, they should record and communicate their findings in a range of ways and begin to use simple scientific language.   * **Test the best material to create a waterproof jacket using different everyday materials** * **Plan and carry out own investigation recording in the form of a table waterproof / not waterproof** * **Conclusions recorded** |
| **Equipment:** They should use simple measurements and equipment (for example, hand lenses) | **Identifying and classifying:**  They should use simple features to compare objects, materials and living things and, with help, decide how to sort and group them.   * **Classify and sort materials by type, properties** |
| **Data gathering:** observing, through video or first-hand observation and measurement | **Changes over time:**  Observe changes over time, and, with guidance, they should begin to notice patterns and relationships. |
| **Other links/information:** | |
| **Plants:**   * observe and describe how seeds and bulbs grow into mature plants   find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. | **Questions:** They should ask people questions and use simple secondary sources to find answers. | **Tests:**  They should use simple measurements and equipment (for example, hand lenses) to gather data, carry out simple tests, record simple data, and talk about what they have found out and how they found it out. With help, they should record and communicate their findings in a range of ways and begin to use simple scientific language.   * **Investigate best conditions for growing beans – bean seeds, compost, pots placed in different conditions – control (exposure to sunlight, warmth and watered), dark place with water, cold place with water, dark place no water, sunlight no water** * **Concept of control specimen and changeable variables** * **Record through observational drawings and measurements (cms) of each test pot** |
| **Equipment:** They should use simple measurements and equipment (for example, hand lenses) | **Identifying and classifying:**  They should use simple features to compare objects, materials and living things and, with help, decide how to sort and group them. |
| **Data gathering:** observing, through video or first-hand observation and measurement | **Changes over time:**  Observe changes over time, and, with guidance, they should begin to notice patterns and relationships.   * **Observations of bean seed growth during investigation – observational drawings and measurements (using rulers) of growth** |
| **Other links/information:** | |