**Breadth map for KS1 science (focus for Year 1 students)**

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| **2 hour sessions each week.** | **Term 1** | **Term 2** | **Term 3** | **Continuous provision** |
| **Week 1** | Introduce\* the names (and images) of:  • Wild and garden plants. | Introduce\* the structure of flowering plants. | Investigate\*and compare\* the differences between things that are living, that are dead and have never been alive. | **By growing seeds, bulbs and vegetables throughout the year:**  Observe and describe how seeds and bulbs grow into mature plants.  Find out and describe how plants need water, light, a suitable temperature to grow and stay healthy.  **In PE lessons:**  Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.  **Through experiment tables set up at various points through the year:**  Notice how things move, using simple comparisons such as faster and slower.  Compare how different things move.  **Through a ‘daily dashboard’, looking at weather and the signs of the season:**  Observe changes across the four seasons.  Observe and describe weather associated with the seasons and how day length varies.  Observe the apparent movement of the Sun throughout the day. |
| **Week 2** | Introduce\* the names (and images) of:  • Evergreen and deciduous trees. | Introduce\* the structure of trees. | Investigate\* the basic needs of animals and humans.  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. |
| **Week 3** | Introduce\* the names (and images) of:  • birds, fish, amphibians, reptiles, mammals and invertebrates. | Introduce\* the groups:  • carnivore, herbivore, omnivore. |
| **Week 4** | Describe\* and compare the structure of: birds, fish, amphibians, reptiles, mammals and invertebrates. |
| **Week 5** | Introduce\* parts of the human body and associate parts of the body with the five senses. | Describe\* the offspring and growth of animals and humans into adulthood.  Identify\* how humans resemble their parents in many features. |
| **Week 6** | Introduce\* a range of everyday materials, including wood, plastic, glass, metal, water and rock.  Distinguish\* between an object and the material from which it is made. (and in doing so, identify\* and compare\* the uses of a variety of everyday materials.) | Describe\* the simple properties of a variety of everyday materials.  Compare\* and group together a variety of everyday materials on the basis of their simple physical properties. | Find out \* how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. |
| **Week 7** | Observe\* and name a variety of sources of light. | Explain that we see sources of light because the light travels from the source to our eyes. | Experiment\* with ways to block light and make shadows. |
| **Week 8** | Observe\* and name a variety of sources of sound, noticing we hear with our ears. | Discriminate between different sounds (Quiz) | Discriminate between similar sounds (Quiz) |
| **Week 9** | Identify common appliances that run on electricity. | Experiment with simple series- circuits. | Experiment with simple series-circuits. |
| **Week 10** | Construct a simple series-circuit. | Quiz: all of the year’s work so far. | Quiz: all of the year’s work so far. |

Any items marked \* will be supported throughout the year with retrieval practise.

**Breadth map for KS1 science (focus for Year 2 students)**

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| **2 hour sessions each week.** | **Term 1** | **Term 2** | **Term 3** | **Continuous provision** |
| **Week 1** | What are the similarities and differences between deciduous and evergreen trees? | Think of some ways to categorise plants. | • What are the similarities and differences in the growth of seeds and bulbs? | **Through experiment tables set up throughout the year:**  Experiment with pushing objects gently and hard. Record and explain what happens.  Experiment with a slope and record how this changes the speed at which an object rolls.  Compare the movement of remote control cars and a helicopter drone. Explain the differences in movement. |
| **Week 2** | Point out and explain the main differences between birds, fish, amphibians, reptiles, mammals and invertebrates. | Taking a selection of (real) different flowering plants, what are the structural features? (apply) | • How could you try to revive these plants? (apply) [Give pupils a dried out plant, one thats been in a fridge, one thats been kept in the dark etc?] |
| **Week 3** | Show how carnivores, herbivores and omnivores are similar and different. | Compare and contrast mammals with amphibians. | Explain why the sense of touch may be important to a blind person. |
| **Week 4** | Explain the main differences between adult animals and humans and their offspring.  Present similarities and differences between parents and their children. | Compare the types of food that different animals require. | Categorise food types and explain why each group is important to humans. |
| **Week 5** | Organise things of your choice into groups: living, dead and never been alive. | Categorise animals/plants according to the conditions they require.  Explain your categories. | Explain why a habitat for a plant or animal is suitable.  Explain the differences in a food chain for a herbivore and a carnivore. |
| **Week 6** | Explain how a bottle is made from sand. | Choose some objects and explain how they were made from their original material.  Decide how to group materials on the basis of their properties. Explain your reasons for your groups.  Group objects based on the materials they are made from. Explain your groupings. | Explain why the properties of materials are useful for deciding which materials to use for an object. Give examples.  Compare and contrast the different properties of materials.  Experiment with changing the shape of solid objects. Organise and summarise your findings.  Compare and contrast the properties of materials and use this to explain why certain materials are used for particular purposes. |
| **Week 7** | Experiment with ways to block light from reaching our eyes.  Point out how this demonstrates that light travels from a source to our eyes. | Show how might you know (apply) roughly what time it is in a day by looking at the position of the sun. | Organise images or objects from each season into categories. Explain your categories. |
| **Week 8** | Categorise sounds.  Compare and contrast sounds based on your own criteria. (choose) | Compare and contrast weather and day length across the four seasons.  Identify patterns in day length across the four seasons. | Explain why habitats for rabbits differ from those of a frog. |
| **Week 9** | Categorise electrical appliances. Explain the reasons for your categories.  Compare and contrast some appliances in each of your categories. | Experiment with broken circuits | List all of the animals you know and describe the differences between them. |
| **Week 10** | Modify a circuit to add more components.  Experiment with and categorise the effect that adding more components has. | List all of the common garden plants and wild plants you know.  List all of the common deciduous and evergreen trees you know. | Describe a healthy diet for a human. |