

Science Year 2 – Term 4

Science Days – 13th and 14th March



Science – Living Things and their habitats (continued)

Term 4	Learning Question & NC Link	Substantive Knowledge To know that...	Disciplinary Knowledge I can...	Vocabulary	Assessment opportunity	Equipment & resources	Lesson ideas
Session 1 Asking simple questions and recognising they can be answered in different ways	How can we find things out in science? What do we want to know about habitats?	To know the different ways that we can find out about things in science. 1. Survey 2. Do a test 3. Classifying 4. Investigation over time 5. Secondary source (Posters displayed in KS1 classrooms)	To be able to ask simple questions and recognise that they can be answered in different ways.	Survey Do a test Classifying Investigation over time Secondary source Habitat Micro habitat Living thing	Adult to record child responses on post-its. Assess against key assessment questions. Photograph activity for science books. Add individual comments.	Types of enquiry posters Lab coat Poster for door Science bag	What do you want to know about habitats? As a class gather children's questions about what they want to know about plants and animals in the local habitats. Recorded these on the flip chart. <u>Being a detective</u> This game is designed to enable the children to first recognise that there are a range of ways we can find out things in science, and then secondly for them to choose the most appropriate method for a particular question. Begin by sharing with children the ways in which we can find things out in science. Refer to posters on your science working wall. 1. Survey – count the number of things 2. Do a test - find out what happens to something when we change something about it 3. Classifying – put things into groups 4. Investigation over time – watch or measure something over time 5. Secondary source – use a book or internet 6. Pattern-seeking – find a relationship between things In pairs or small groups, give each pair one of the questions from the flip chart. (cut these up and physically give to each pair). Lay the posters out on the tables and ask the children to decide where their question should go. What type of enquiry is best to answer the question.
Session 2 Observing	What different habitats are there and what are they like?	To name different habitats in our school. To know what different habitats are like and describe them. i.e. damp/dry/light/dark To know what a micro habitat is i.e. a spider web, leaves, To name different micro habitats i.e. To know that most living things are suited to their habitat. To know that a habitat provides for the basic needs of animals and plants. To know how habitats can change during the year.	To show curiosity about the world we live in and ask questions about it. To be able to observe closely. To respond to questions such as why would an animal live in that habitat? To be able to observe using a microscope/hand lens. To be able to identify and name a variety of plants and animals in their habitats, including micro-habitats.	Habitat - The home of an animal or a plant. Micro habitat - A small part of the environment that supports a habitat, such as a fallen log in a forest. Invertebrates – snail, slug, woodlouse, spider, beetle, fly, etc Pond, meadow, log pile, woodland, river, lake, beach, cliff	Adult to record child responses on post-its. Assess against key assessment questions.	Magnifying glasses Lab coat Poster for door Science bag	Identify different micro habitats that they could visit in the garden. E.g. brick walls, under the logs in the outdoor classroom, on leaves/bushes. Recap what a micro habitat is. (Knowledge taught in Term 3) Visit each of the habitats and explain using their senses what it is like e.g. damp/dry, light/dark, warm/cold, etc. Use magnifying glasses to observe closely. Make suggestions about what invertebrates might live in each habitat. Back in the classroom draw the habitats and describe what it is like there. EXT: Do habitats change during the year? (investigation over time, link back to last week's learning with the types of enquiry)
Session 3 Identify and classify	How can we sort and classify living and non-living things? What are the processes common to all living things?	To know how to sort and classify things that are living, dead and things that have never been alive. To know some processes common to all living things. (MRS NERG or Mrs GREN)	To be able to explore and compare the differences between things that are living, dead, and things that have never been alive. To describe how different habitats, provide for the basic needs of different kinds of animals and plants, and how they depend on each other.	Living thing, dead, never been alive, non-living, habitat Organism – plant, animal Garden plants – crocus, daffodil, bluebells, etc Characteristics - A special quality or appearance that makes an individual or a group different from others. Processes – movement, respiration, sensing, nutrition, excretion, reproduction, growth Survey	Adult to record child responses on post-its. Assess against key assessment questions.	Sorting activity Clipboards Lab coat Poster for door Science bag	<u>Deep thinking time</u> There are a range of thinking tasks that you can give the children throughout this unit of work: Alive. Once alive, never alive. 1. Provide children with a range of objects to sort according to these headings. Good objects could include: fossils, rocks, wood, shell and feathers 2. 2. Odd one out – A shell, a rock and a plant 3. 3. A hard questions - Is a flame alive? Survey – How many different living things can we find? (Refer to poster – carry out a survey Week 1 learning) The processes common to all living things are: movement, respiration, sensing, nutrition, excretion, reproduction and growth (MRS NERG). Take the children outside. Explain to them that they have the challenge to work out the things that living things can do that non-living things can't do. You will probably need to begin with talking about both plants and animals are things that children will need to look at. You could place a lolly stick next to

							<p>or a laminated symbol to things that you want them to visit in the garden in order to decide whether it is living or non-living.</p> <p>Recording The children could divide a page in half. Down one side they record non-living things and down the other side living things. In addition, they could draw a stick man. Around the stick man can be drawn thought bubbles. Inside each bubble the children can write 'A living thing'</p>																																
<p>Session 4</p> <p>Using their observations and ideas to suggest answers to questions.</p> <p>Gather and record data to help in answering questions</p>	<p>Where is the most popular place for animals to visit?</p>	<p>To know and apply the scientific language to talk about what they have found out.</p>	<p>To be able to use observations to suggest answers to questions.</p> <p>To be able to gather and record data to help answer a question i.e. How many different living things can we find? What are different habitats like? Why would an animal live in that habitat?</p> <p>To be able to record data in a tally chart i.e. to show which animals are found in the habitat.</p>	<p>Living thing, dead, never been alive, non-living, habitat survey</p>	<p>Adult to record child responses on post-its. Assess against key assessment questions.</p>	<p>Lab coat</p> <p>Poster for door</p> <p>Science bag</p>	<p>Survey - Where is the most popular place for animals to visit? (Refer to poster – carry out a survey, refer to last week's learning)</p> <p>*Off site visit</p> <p>Visit Gazen Salts nature reserve. Children are to carry out a survey to find the most popular place for animals to live.</p> <table border="1"> <thead> <tr> <th>Habitat</th> <th>Spiders</th> <th>Harvestmen</th> <th>Woodlice</th> <th>Beetles</th> <th>Ants</th> <th>Centipedes</th> <th>Worms</th> </tr> </thead> <tbody> <tr> <td>Leaf litter</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Under stones</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Rotten wood</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table> <p>Complete a chart like the sample above.</p> <p>Discuss back at school the data they have collected – can they answer their original question?</p>	Habitat	Spiders	Harvestmen	Woodlice	Beetles	Ants	Centipedes	Worms	Leaf litter								Under stones								Rotten wood							
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<p>Session 5</p> <p>Performing simple tests</p>	<p>Why do these living things live there?</p>	<p>To understand that habitats can be small and local but also very extensive.</p> <p>To understand that creatures are adapted for their own habitats.</p>	<p>To 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.</p>	<p>Adaptation, habitat, diorama,</p>	<p>Adult to record child responses on post-its. Assess against key assessment questions.</p>	<p>Lab coat</p> <p>Poster for door</p> <p>Science bag</p> <p>Resources for dioramas</p> <p>Carpet tiles, plank of wood, brick</p>	<p>Play 'Pin the Living Thing on the Habitat' using small images of familiar creatures and large images of habitats.</p> <p>Consider what makes each creature perfectly adapted to their habitat and imagine what would happen if living things wandered into other habitats (lion in the ocean, for example).</p> <p>Create shoebox dioramas for plastic animal toys or laminated images of living things. (This could be set as a homework task). Discuss/share their choice of habitat for their animal. How does it provide for the basic needs of the animal?</p> <p>Place a carpet tile, a plank of wood, a brick out on the grass. Leave for a few days and see what happens. Do any living things use this a habitat? Why? What conditions have been created/provided for the living things?</p>																																
<p>Notes</p>	<p>Risk assessment needed for off-site visit</p>																																						