

## Science- Substantive Knowledge Map

Unit	Year 2	Vocabulary	Retrieval Opportunities
Animals Including Humans	<ul style="list-style-type: none"> <li>• Notice that animals, including humans, have offspring which grow into adults.</li> <li>• Find out about and describe the basic needs of animals, including humans, for survival (water, food and air).</li> <li>• Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.</li> </ul>	<p>offspring, grow, adults, <b>Survival:</b> water, food, air, exercise, hygiene, nutrition, reproduce      egg, chick, chicken, egg, caterpillar, pupa, butterfly, spawn, tadpole, frog, lamb, sheep, baby, toddler, child, teenager, adult.</p>	<p>Homework activities based upon current topic      Observe changes across the four seasons.</p>
Living things and their habitats	<ul style="list-style-type: none"> <li>• Explore and compare the differences between things that are living, dead, and things that have never been alive.</li> <li>• 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.</li> <li>• Identify and name a variety of plants and animals in their habitats, including microhabitats.</li> <li>• 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.</li> </ul>	<p>living, dead, never alive, habitats, micro-habitats, food, food chain, sun, grass, cow, human, alive, healthy, logs, leaf litter, stony path, under bushes, shelter, seashore, woodland, ocean, rainforest, conditions, hot/warm/cold, dry/damp/wet, bright/shade/dark.</p>	<p>Observe and describe weather associated with the seasons and how day length varies.      Resources: books and pictures, planters in the school gardens, window boxes      Activities: name that tree, animal Wiki, where did I begin (materials), how long is a day (sun tracking across the year)</p>
Plants	<ul style="list-style-type: none"> <li>• Observe and describe how seeds and bulbs grow into mature plants.</li> <li>• Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.</li> </ul>	<p><b>Common:</b> wild plants, garden plants, deciduous evergreen,  <b>Plant:</b> leaf, root, leaves, bud, flowers, blossom, petals, root, stem, grow, healthy  <b>Tree:</b> deciduous, evergreen, trunk, branches, leaf, root      fruit, vegetables, bulb, seed.      water, light, suitable, temperature      germination, reproduction</p>	

<b>Materials</b>	<ul style="list-style-type: none"> <li>Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.</li> <li>Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</li> </ul>	<p>wood, metal, plastic, glass, brick, rock, paper, cardboard  bending, squashing, twisting, stretching  wood- matches, floors, telegraph poles  metal- coins, cans, cars, table legs  John Dunlop- plastic  Charles Macintosh- waterproof fabric  John McAdam- macadamisation</p>	
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