

Science- Substantive Knowledge Map

| Unit | Year 1 | Vocabulary | Retrieval Opportunities |
|---------------------------------|---|--|---|
| Seasonal Changes | <ul style="list-style-type: none"> Observe changes across the 4 seasons. Observe and describe weather associated with the seasons and how day length varies. | Season, autumn, winter, spring, summer, cold, warm, hot, sunny, rain, wind, frost, snow, cloud, question, answer, equipment. | Homework activities based upon current topic |
| Animals Including Humans | <ul style="list-style-type: none"> Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. Identify and name a variety of common animals that are carnivores, herbivores and omnivores. Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets). Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. | <p>common animals –fish, amphibians, reptiles, birds, mammals, pets</p> <p>carnivores - meat, cat, dog, lion, tiger, fox, shark, killer whale, eagle, hawk, snake, tyrannosaurus rex</p> <p>herbivores - plants, cow, hamster, guinea pig, tortoise, triceratops</p> <p>omnivores -meat and plants, badger, human, bear, chickens</p> <p>Parts of the body: elbows, legs, knees, face, ears, eyes hair, mouth, teeth.</p> <p>Senses – touch, see, smell, taste, hear, fingers (skin), eyes, nose, ear and tongue</p> | <p>Observe changes across the four seasons.</p> <p>Observe and describe weather associated with the seasons and how day length varies.</p> <p>Resources: books and pictures, planters in the school gardens, window boxes</p> <p>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"> Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. Identify and describe the basic structure of a variety of common flowering plants, including trees. | <p>Common: wild plants, garden plants, deciduous evergreen,</p> <p>Plant: leaf, root, leaves, bud, flowers, blossom, petals, root, stem.</p> <p>Tree: deciduous, evergreen, trunk, branches, leaf, root</p> <p>Fruit, vegetables, bulb, seed.</p> | |
| Materials | <ul style="list-style-type: none"> Distinguish between an object and the material from which it is made. Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock. | Object, material, wood, plastic, glass, metal, water, rock, brick, paper, fabric, elastic, foil, card/cardboard, rubber, wool, clay, hard, soft | |

- Describe the simple physical properties of a variety of everyday materials.
- Compare and group together a variety of everyday materials on the basis of their simple physical properties.

stretchy, stiff, bendy, floppy, waterproof, absorbent, breaks/tears, rough, smooth, shiny, dull, see-through, not see-through