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| Science Knowledge Map |
| **KS1 Cycle A** |
| Autumn: Everyday materials and their uses |
| * I can look at an object and say what material it is made from. * I can identify and name a variety of everyday materials including wood, plastic, glass, metal, water and rock. * I can describe the physical properties of a variety of everyday materials, e.g. bendy/ not bendy, stretchy/ stiff, hard/ soft, rough/smooth, shiny/dull, waterproof/ not waterproof, absorbent/ not absorbent, opaque/ transparent, magnetic/ not magnetic etc. * I can compare and group together a variety of everyday materials on the basis of their simple physical properties. * I can identify and compare the suitability of different materials for particular uses, e.g. A window is made of glass so we can see through it and a house is made of bricks so that it is strong. * I know that you can change the shapes of some materials by squashing, bending, twisting and stretching them.   **Working Scientifically**   * I can ask my own simple scientific questions e.g. What is the best material to make an item for a purpose? * I can begin to answer scientific questions through different experiences. * I can sort, compare and group objects according to the material which they are made from.   **Vocabulary:**  materials, wood, plastic, glass metal, water, rock, bendy/ not bendy, stretchy/ stiff, hard/ soft, rough/smooth, shiny/dull, waterproof/ not waterproof, absorbent/ not absorbent, opaque/ transparent, magnetic/ not magnetic, squashing, bending, twisting and stretching. |
| Spring: Animals and Living Things and their Habitats |
| Animals including Humans:   * I can identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. * I know that carnivores eat meat, herbivores eat plants and omnivores eat both meat and plants and can identify and name animals that fall into these groups. * I can describe and compare the structure of variety of common animals, including fish, amphibians, reptiles, birds, mammals and pets. * I can describe how a food chain works and can make a simple one using plants and animals.   Living Things and their Habitats:   * I know that most living things live in a habitat to which they are most suited. * I can describe how different habitats provide for the different needs of different types of animals and plants and how they depend on each other.   **Working Scientifically**   * I can sort and group living things into the different animal groups. * I can ask questions and use secondary sources to find answers.   **Vocabulary**  fish, amphibians, reptiles, carnivores, herbivores, omnivores, habitat and food chain. |
| Summer: Living Things and their Habitats and Plants |
| Living Things and their Habitats:   * I can explore and compare the differences between things that are living, dead or things that have never been alive. * I can identify and name a variety of plants and animals in their habitats including micro habitats.   Plants:   * I can identify and name a variety of common wild and garden trees, including deciduous and evergreen trees. * I can identify and describe the basic structure of a variety of common flowering plants including trees. * I can observe and describe how seeds and plants grow into mature plants. * Find out how plants need water, light and a suitable temperature to grow and stay healthy.   **Working Scientifically**   * I can keep a record of how the plants change over time (observing changes in our school grounds, recording the growth of a forced hyacinth (roots and flowers) and measuring the growth of our class sunflowers). * I can perform simple scientific enquiries to find out what plants require to grow. * I can ask simple scientific questions e.g. can a plant grow without light? * I can closely observe my simple scientific enquiry. * I can use my observations to suggest answers to my questions. * I can use simple measurements and equipment to gather data. * I can record my observations and simple data.   **Vocabulary**   * Living, dead, never alive, micro habitats, deciduous, evergreen, flowering and temperature. |
| **Key Stage 1 Cycle B** |
| Autumn: Healthy Me |
| Animals Including Humans:   * I can describe the importance for humans of exercise. * I can describe the importance for humans of eating the write amounts of different types of food. * I describe the importance for humans of hygiene.   Seasonal Changes:   * I can describe how the seasons are changing from Summer to Autumn and Autumn to Winter. * I can describe weather associated with Autumn and Winter and notice that the days are shorter and darker.   **Working Scientifically**   * I can ask my own simple scientific questions and with help talk about what I have found out using simple scientific language. * I can explore the world around me and ask and answer questions. * I can closely observe to simple scientific enquiries. * I can use simple measurements and equipment to gather data e.g. temperature.   **Vocabulary**  exercise, hygiene |
| Spring: Humans |
| Animals Including Humans:   * I can identify, name, draw and label the basic parts of the human body e.g. ears, eyes, nose, mouth/ tongue, fingers. * I can say which part of the body is associated to with sense e.g. hearing, sight, smell, taste and touch. * I know that animals including humans have offspring which develop into adults. * I know about the basic needs of humans for survival (water, food and air)   Seasonal Changes:   * I can describe how the seasons are changing from Winter to Spring. * I can describe weather associated with Spring.   **Working Scientifically**   * I can use simple secondary sources to find answers to scientific questions. * I can explore the world around me and ask and answer questions. * I can closely observe to simple scientific enquiries. * I can use simple measurements and equipment to gather data e.g. temperature.   **Vocabulary**  Offspring, adults, survival, eyes, ears, nose, mouth, fingers. |
| Summer: Animals and Seasonal changes |
| Animals Including Humans:   * I know that animals have offspring which develop into adults. * Find out about the basic needs of animals including humans for survival (water, food and air).   Seasonal Changes:   * I can describe how the seasons change across the four seasons. * I can describe weather associated with the seasons and how day length varies.   **Working Scientifically**   * I can explore the world around me and ask and answer questions. * I can closely observe to simple scientific enquiries. * I can use simple measurements and equipment to gather data e.g. temperature. * I can begin to notice patterns and relationships in data.   **Vocabulary**  Season: spring, summer, autumn and winter, weather, night and day. |