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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.
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| **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. |