

Science Curriculum EYFS

The Treehouse

Key: Biology Chemistry Physics

| Objective | Sticky Knowledge | Vocabulary | Key Questions | Future Learning |
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| I can use my senses to explore the natural world, using vocabulary to talk about what I can see. I can group materials. | I know that Autumn brings lots of changes to trees and leaves. | Autumn, bark, branch, leaves, bumpy, smooth, jagged, big, small, bigger, smaller | What can you see? What do you notice? Why is this happening? Why have you grouped them this way? | I can name the four seasons and I am beginning to talk about their features, sometimes with support. |
| I know that the weather changes throughout the year and can talk about my findings. | I know that the weather changes throughout the year and that I need different clothes. I can use sunny, cloudy, windy, raining, snowing, frosty in context. | Sunny, cloudy, rainy, windy, snowing, frosty | What clothes would you wear in Winter? Summer? Would you swim in the sea in Winter? Why? Would you wear a scarf and woolly hat in Summer? | Observe and describe weather associated with the seasons and how day length varies. |
| I know that ice melts when it is put in a warm place or warm water. | Ice melts when it is warm. Ice turns to water when it melts. | Ice, melts, melting, frozen, freezing | Will ice melt if I put it outside? What happens if I pour cold water on the ice? Will it melt? Is it different to how water? | I know how to make ice melt quickly. I know that wrapping it in newspaper slows this process. |
| I can plant, grow and look after vegetables. | I know that some vegetables grow below the ground and some above the ground. I know that I need to water them for them to grow. | Vegetable, root, shoot, grow, celery, lettuce, onion, carrot | What can you see? What do you notice? Why is this happening? Why is it growing? What does it need? | I can name the basic parts of a plant. I know that a plant needs water and sunlight to grow. I can identify some trees and flowers growing on our school field. |

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| I know that magnets stick to some objects and these are called metals | I know that magnets stick to metals. I know magnets do not stick to wood or plastic. | Magnet, wood, plastic | What do you notice? Can you sort the objects? Tell me how? What is it made from? | Compare and group together a variety of everyday materials on the basis of their simple properties |
| I know that some objects float and some sink and can sort them into groups. | I know that some objects float. I know that some heavy things float. | Float, sink, sinking, floating | What do you notice? Can you sort the objects? Tell me what you have done. | Describe the simple physical properties of a variety of everyday materials. |

Skills:

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| Skill | I can explore and make simple observations during my play. |
| | I am beginning to use all of my sense to observe. |
| | I can talk about what is different and I am beginning to talk about what is the same. |
| | I am beginning to make comparisons. |
| | I am beginning to sort and group, sometimes with reasons |

Acorn Class (Reception)

| Objective | Sticky Knowledge | Vocabulary | Key Questions | Future Learning - NC |
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| I can name the four seasons and I am beginning to talk about their features, sometimes with support. | I know that the seasons are: Spring, Summer, Autumn, Winter. I can identify basic features of each season. | Spring, Summer, Autumn, Winter, season | How do you know it's Autumn? Sprig? Summer? Winter? What do you notice? | Observe changes across the four seasons |
| I can explore shadows on a sunny day | I know that when we block the sun a shadow is made. I know you cannot have a shadow on a cloudy day. | Shadow, sunlight, shade | Can you make a shadow in the shade? Can you see your shadow everywhere on the playground? Why is this? What happens to your shadow when you move? | I know that shadows are formed when a light source is blocked by a solid object |
| I know that I need to keep healthy and brushing my teeth is one way I can do this. I can talk about other ways of keeping healthy including: eating healthily, exercising, screen time and sleeping. | I know that I need to brush x2 day. I know that sugary foods are bad for my teeth. I know that water is ok to drink before bed. I know that fruit and vegetables are good for me and that I need 5 a day. I know that exercise is good for me as it keeps my heart and body healthy. I know it isn't healthy to spend long periods of time at a screen. I know that I need to sleep well at night to be healthy. | Brush, floss, clean, dentist, vegetable, fruit, exercise, heart, healthy | How long do you brush for? Do you go up and down or round and round? Who do you visit to look after your teeth? | I can describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene |
| I can use all of my senses to explore the outside | I know that some trees lose their leaves in Autumn. I know some grow blossom in Spring. I know | Blossom, bulbs, bark, deciduous, evergreen, oak | What can you see? Smell? Hear? Feel? | I can identify and name a variety of common wild and garden plants including deciduous and evergreen trees |

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| environment identifying changes that I observe. | bulbs come in Spring. I know flowers grow in Spring and Summer when it warms up. | | What's the same/different? | I can identify and describe the basic structure of a variety of common flowering plants, including trees. observe and describe how seeds and bulbs grow into mature plants I can find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. |
| I can name some birds in our school field. | I know that swallows migrate to Africa. I know robins, blackbirds, crows, magpies and sparrows visit our school grounds. | Swallows, robins, blackbirds, crows, magpies, migrate, migration, Africa | What can you see? What do they look like? Why do they migrate? What do they eat? | I can identify and name a variety of common animals including, fish, amphibians, reptiles, birds and mammals. |
| I know that we breathe in a different way to fish. | I know that we breathe using our lungs and when we go swimming we have to hold our breath under water. We come up to the surface to breathe. Fish breathe underwater using gills. I know that whales have lungs and blowholes. | Blowhole, gills, lungs, breathe | Where are your lungs? What happens to them when you breathe? Why is this? What can you feel protecting your lungs? Can fish breathe underwater? What do the gills look like? | I can identify, name, draw and label the basic parts of the human body. I can describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets) |
| I can name the basic parts of a plant. I know that a plant needs water and sunlight to grow. I can identify some trees and flowers growing on our school field. I can plant a bean and look after it so that it grows. | I know the stem is the tall part that holds the flower and the leaves. I know the roots go into the ground and help the plant to feed as well as holding it in place. I know that a plant needs sunlight and water to grow. I know that acorns come from oak trees. I can recognise the leaf on an oak tree. | Stem, leaf, root, shoot, grow, sunlight. Oak, acorn, daisy, dandelion, clover | What is the same? Different? Why does it need roots? What does the stem do? Are all plants the same? Leaves? Flowers? Trees? | 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. Identify and name the roots, trunk, branches and leaves of trees. |
| I can describe the lifecycle of a snail. | I know that snails come out of an egg. I know that adult snails live in moist, dark places. | Egg, larva, adult, foot, shell | Why do snails live in dark places? Did you hatch out an egg like a snail? | I notice that animals, including humans, have offspring which grow into adults |

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| I know how to make ice melt quickly. I know that wrapping it in newspaper slows this process. | I know that ice can be made by putting water in the freezer or outside when it is very cold in winter. I know that ice melts if placed in a warm place, if placed in warm water, if held in my hands or sprinkled with salt. | Melt, melting, freeze, freezing, frosty, icy. | What do you notice? Why is this happening? | Describe the simple physical properties of a variety of everyday materials. Observe that some materials change state when heated or cooled, and measure and research the temperature at which this happens in degrees Celsius (Y4) |
| I know that objects are made from different materials. | I can sort materials into: fabric, metal, wood and plastic | Fabric, metal, wood, plastic, hard, bumpy, smooth, bendy | What does it feel like? What is the same? Different? | Compare and group together a variety of everyday materials on the basis of their simple properties. I can distinguish between an object and the material from which it is made. I can identify and name a variety of everyday materials including wood, plastic, glass, metal, water and rock. |

Skills:

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| Skill | I can explore during my play and can repeat an action, making observations to see if the results change. |
| | I am beginning to make observations to recognise when a simple comparison is unfair. |
| | I can observe closely and make observations using all of my senses. |
| | I can compare 2 or 3 things by direct observation, describing the differences and similarities. |
| | I am beginning to record observations in picture form. |
| | I can make comparisons - Say what happened - Order results (first, second, third, etc). - Spot similarities and differences. |