

A Year 1 scientist

| Working scientifically (Y1 and Y2) | Biology | Chemistry | Physics |
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| <ul style="list-style-type: none"> I ask simple scientific questions. I use simple equipment to make observations. I carry out simple tests. I identify and classify things. I suggest what I have found out. I use simple data to answer questions | <p><u>Plants</u></p> <ul style="list-style-type: none"> I name a variety of common wild and garden plants. I name the petals, stem, leaf and root of a plant. I name the roots, trunk, branches and leaves of a tree. <p><u>Animals, including humans</u></p> <ul style="list-style-type: none"> I name a variety of animals including fish, amphibians, reptiles, birds and mammals. I classify and name animals by what they eat (carnivore, herbivore and omnivore). I sort animals into categories (including fish, amphibians, reptiles, birds and mammals). I sort living and non-living things. I name the parts of the human body that I can see. I link the correct part of the human body to each sense. | <p><u>Everyday materials</u></p> <ul style="list-style-type: none"> I distinguish between an object and the material it is made from. I explain the materials that an object is made from. I name wood, plastic, glass, metal, water and rock. I describe the properties of everyday materials. I group objects based on the materials they are made from. | <p><u>Seasonal changes</u></p> <ul style="list-style-type: none"> I observe and comment on changes in the seasons. I name the seasons and suggest the type of weather in each season. |

A Year 2 scientist

| Working scientifically (Y1 and Y2) | Biology | Chemistry | Physics |
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| <ul style="list-style-type: none"> I ask simple scientific questions. I use simple equipment to make observations. I carry out simple tests. I identify and classify things. I suggest what I have found out. I use simple data to answer questions | <p><u>Living things and their habitats</u></p> <ul style="list-style-type: none"> I identify things that are living, dead and never lived. I describe how a specific habitat provides for the basic needs of things living there (plants and animals). I identify and name plants and animals in a range of habitats. I match living things to their habitat. I describe how animals find their food. I name some different sources of food for animals. I explain a simple food chain. <p><u>Plants</u></p> <ul style="list-style-type: none"> I describe how seeds and bulbs grow into plants. I describe what plants need in order to grow and stay healthy (water, light & suitable temperature). <p><u>Animals, including humans</u></p> <ul style="list-style-type: none"> I explain the basic stages in a life cycle for animals, including humans. I describe what animals and humans need to survive. I describe why exercise, a balanced diet and good hygiene are important for humans. | <p><u>Uses of everyday materials</u></p> <ul style="list-style-type: none"> I identify and name a range of materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard. I suggest why a material might or might not be used for a specific job. I explore how shapes can be changed by squashing, bending, twisting and stretching. | <p>No content</p> |

A Year 3/4 scientist

| Working scientifically (Y3 and Y4) | Biology | Chemistry | Physics |
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| <ul style="list-style-type: none"> I ask relevant scientific questions. I use observations and knowledge to answer scientific questions. I set up a simple enquiry to explore a scientific question. I set up a test to compare two things. I set up a fair test and explain why it is fair. I make careful and accurate observations, including the use of standard units. I use equipment, including thermometers and data loggers to make measurements. I gather, record, classify and present data in different ways to answer scientific questions. I use diagrams, keys, bar charts and tables; using scientific language. I use findings to report in different ways, including oral and written explanations, presentation. I draw conclusions and suggest improvements. I make a prediction with a reason. I identify differences, similarities and changes related to an enquiry. | <p><u>Plants</u></p> <ul style="list-style-type: none"> I describe the function of different parts of flowering plants and trees. I explore and describe the needs of different plants for survival. I explore and describe how water is transported within plants. I describe the plant life cycle, especially the importance of flowers. <p><u>Animals, including humans</u></p> <ul style="list-style-type: none"> I explain the importance of a nutritious, balanced diet. I explain how nutrients, water and oxygen are transported within animals and humans. I describe and explain the skeletal system of a human. I describe and explain the muscular system of a human. I describe the purpose of the skeleton in humans and animals. | <p><u>Rocks</u></p> <ul style="list-style-type: none"> I compare and group rocks based on their appearance and physical properties, giving a reason. I describe how fossils are formed. I describe how soils are made. I describe and explain the difference between sedimentary and igneous rock. | <p><u>Light</u></p> <ul style="list-style-type: none"> I describe what dark is (the absence of light). I explain that light is needed in order to see. I explain that light is reflected from a surface. I explain and demonstrate how a shadow is formed. I can explore shadow size and explain. I explain the danger of direct sunlight and describe how to keep protected. <p><u>Forces and magnets</u></p> <ul style="list-style-type: none"> I explore and describe how objects move on different surfaces. I explain how some forces require contact and some do not, giving examples. I explore and explain how objects attract and repel in relation to objects and other magnets. I predict whether objects will be magnetic and carry out an enquiry to test this out. I describe how magnets work. I predict whether magnets will attract or repel and give a reason. |

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