

Science



Name _____

Class _____

Science – Physical Processes – Level 4

1	I can make generalisations about simple, observable phenomena. e.g. can say that a shadow is always made when a light shines on an opaque object.	
2	I can explain simple phenomena in terms of concrete concepts. e.g. I can explain that a force is needed to make anything move, or that friction slows objects down.	
3	I can make generalisations about phenomena which are less easy to observe. e.g. I can say that a sound is always made when an object vibrates.	
4	I can explain physical phenomena in terms of abstract concepts. e.g. I can explain why a broken circuit does not work, or why dropped objects fall.	
5	I can explain physical phenomena where they have been provided with a model of a very abstract idea. e.g. explain why the apparent position of the sun changes over the course of a day.	

Science –Scientific Enquiry- P8

1	I can ask for actions and events, e.g. "Squash it," "Smell it."	
2	I can describe characteristics of objects and events I observe, e.g. I can say "It's big," "It's hard," "It's shiny."	
3	I describe something as it happens, e.g. <i>in response to a question "What is the car doing?" I can say "It is moving."</i>	
4	I can communicate observations through drawings which can be recognised, e.g. a plant with leaves, coloured green.	
5	I can respond to reminders about short sequences, e.g. when asked "What did the cat do? I can respond, to say that "It meowed", or "it ran away".	

Science – Scientific Enquiry – Level 1

1	I can communicate simple observations by labelling a picture.	
2	I can communicate what I did, e.g. say "We watered a plant."	
3	I can communicate observations by drawing, e.g. draw picture of what happened.	
4	I can describe observations, e.g. say a material is hard and strong i.e. offering more than one characteristic.	
5	I can make a simple suggestion when prompted about what might happen, e.g. can suggest that a ball will bounce when dropped.	

Science –Scientific Enquiry - Level 2

1	I can make and record observations in a ready made two column table, e.g. <i>magnetic and not magnetic.</i>	
2	I can respond to suggestions about how to find things out and use simple equipment provided, e.g. <i>when prompted, count number of lolly sticks I can pick up, distance the car went.</i>	
3	I can make a simple suggestion, e.g. " <i>The ice cube will melt on the radiator,</i> " and say whether what happened was what I expected e.g. " <i>I was right. It did melt.</i> "	
4	I can make a simple block graph or pictogram, e.g. <i>build a tower of bricks to heights of different plants.</i>	
5	I can measure in simple standard units, e.g. <i>measure the height of a plant in whole centimetres.</i>	

Science – Physical Processes – Level 3

1	I can link cause and effect in simple phenomena. e.g. can say that when the switch is pushed, the light comes on.	
2	I can link cause and effect in situations where an action has to be changed to change the effect. e.g. I can say that a sponge will need to be squeezed harder to get it in a smaller cup.	
3	I can link cause and effect where I need to use knowledge and understanding of an abstract concept. e.g. can say which circuits will work and which will not work.	
4	I can make simple generalisations about physical phenomena. e.g. I can say that the more layers of tracing paper, the less light will come through.	
5	I can make simple generalisations about more abstract phenomena. e.g. I can explain that sounds become fainter as they get further from the source.	

Science – Physical Processes – level 2

1	I can sort and group examples of simple physical phenomena. e.g. pictures of fast things, pictures of slow things.	
2	I can sort and group examples of physical phenomena and explain the basis for their groupings. e.g. "All these things use electricity, these don't".	
3	I can use increasingly abstract ways of sorting physical phenomena. e.g. Bright lights and dim lights, high sounds and low sounds.	
4	I can describe similarities and differences in physical phenomena using simple vocabulary. e.g. 'This car goes faster than this one'. 'The traffic lights are different colours, red, orange and green.'	
5	I can describe similarities and differences in physical phenomena using an increased range of more abstract terms. e.g. "This light is brighter than this one". "This recorder makes higher sounds than this one".	

Science – Scientific Enquiry – Level 3

1	I can respond to suggestions about how to find things out and put forward my own ideas, e.g. <i>make suggestions about how we could find out what food snails like best.</i>	
2	I can make a suggestion about what will happen, e.g. " <i>My car will go faster because it's a racing car.</i> "	
3	I can use a range of simple equipment, e.g. <i>rulers and stop clocks, simple thermometers.</i> I can record in a variety of ways, e.g. <i>construct tables and block graphs.</i>	
4	I can carry out a fair test with limited help and explain ways I made it fair, e.g. <i>find out which toy car goes the furthest and explain that they did not push them, but rolled them from the same position on a ramp.</i>	
5	I can explain patterns in results, e.g. <i>explain why two layers of fabric kept the tea warmer than one layer.</i> I can suggest improvements in my work, e.g. <i>suggest dropping parachutes from greater height during an experiment or measuring more carefully.</i>	

Science – Scientific Enquiry - Level 4

1	I can make a prediction based on everyday knowledge and understanding, e.g. <i>I predict that the plants given the most water will be tallest, but if they are given too much water they will die.</i>	
2	I can suggest equipment suitable for the task, without prompting, e.g. <i>select a force meter to measure force to move a shoe.</i> I can present measurements and observations clearly in tables I have constructed. I can suggest improvements in my work, giving reasons, e.g. <i>say that it would have been better to use a smaller volume of water in an absorbency test as the quantity of paper towels required was excessive.</i>	
3	I can suggest an appropriate approach, e.g. <i>survey or fair test.</i> I can plan and carry out a fair test in which one factor is varied while keeping the others the same, e.g. <i>control amount of water, time, vessel, lid (or not) when testing materials for thermal insulation.</i>	
4	I can use scientific language when communicating conclusions, e.g. <i>use the term 'air resistance' when explaining why the largest parachute took the longest time to drop.</i> I can construct a bar chart.	
5	I can plot points on a line graph where the scales on the axes are simple, and points are on major grid lines. I can use graphs to point out and interpret patterns, e.g. <i>write a series of five questions which the graph answers.</i>	

Science – Physical Processes – P8

1	I can request actions and events e.g. "Switch it on/off" "Push it/Pull it."	
2	I can describe characteristics of objects and events I observe. e.g. I can say "It's light/dark" "It's loud."	
3	I can describe something as it happens e.g. in response to the question "What is the car doing?" I can say "It is moving/rolling."	
4	I can communicate observations through drawings which can be recognised. e.g. a T.V. with a screen and buttons.	
5	I can respond to reminders about short sequences, e.g. when asked "What did the ball do when we dropped it?" I can respond, to say that "it bounced and rolled away".	

Science – Physical Processes – Level 1

1	I can communicate simple observations by labelling a picture. e.g. of a toy car.	
2	I can communicate what I did. e.g. say "We switched on the light."	
3	I can respond to more complex instructions to cause a range of changes. e.g. make the trolley move forwards and backwards.	
4	I can use simple language to communicate observations of changes. e.g. on and off, fast and slow, name sources of light and sound, and moving objects.	
5	I can use, more complex sentences to describe changes. e.g. I can suggest how to make a toy move faster.	

Science - Materials and their Properties – Level 4

1	Pupil can describe some simple methods of separating mixtures, where the separate components are visible or can be felt, e.g. describe how to sieve sand and peas or decant water from water and sand.	
2	Pupil can describe some methods of separating mixtures where a more complex technique is used, e.g. explain how a coffee filter or teabag works. Pupil can describe differences between solids and liquids in terms of simple properties, e.g. maintenance of shape.	
3	Pupil can describe differences between solids, liquids and gases in terms of properties. Pupil can describe what happens when a liquid is heated e.g. say that water boils, turns to a gas and use the term 'evaporation'.	
4	Pupil can suggest how a known mixture might be separated, e.g. filtration for sand and water evaporation for obtaining salt from a salt and water mixture.	
5	Pupil can use knowledge about separation techniques and reversible and irreversible changes to make predictions about whether other simple changes are reversible or not, e.g. predict whether water coloured with food colouring will produce coloured steam on boiling.	

Science – Life Processes and Living things – P8

1	I can request actions and events, e.g. "Feed the hamster." "Water the plant."	
2	I can describe characteristics of objects and events they observe, e.g. "It's hairy." "It growls."	
3	I can describe something as it happens, e.g. In response to the question "What's the fish doing?" (swimming).	
4	I can communicate observations through drawings which can be recognised, e.g. a plant with leaves coloured green.	
5	I can respond to reminders about short sequences, e.g. "What did the cat do?" "It meowed and ran away."	

Science – Life processes and Living Things – Level 1

1	I can label simple external parts of the body.	
2	I can communicate observations simple parts of plants and a small number of common animals, e.g. I can say "We watered the plant."	
3	I can communicate observations by drawing, e.g. a picture of a person.	
4	I can use simple adjectives to communicate observations of animals and plants. e.g. brown, green, big, small.	
5	I can name a wider range of parts of the body, plants, and can describe these, and a range of animals, e.g. They can say "The cat is black and furry. It's got a tail".	

Science – Life Processes and Living Things – Level 2

1	I know what a plant or animal needs to survive, e.g. I can select from pictures to show that a human needs food and water, or a plant needs light and water.	
2	I can recognise that living things grow and reproduce, e.g. I can match pictures of animals with their young; I can put pictures of a human being in order (baby to adult).	
3	I can sort living things into groups, e.g. sort pictures or model animals into groups such as birds, insects, mammals (vocabulary not required).	
4	I can describe my groups of animals or plants, e.g. say “All these are birds and these ones have fur”, or say “These plants have got flowers. These ones haven’t”.	
5	I can recognise that different living things are found in different places, e.g. they match pictures of animals with their habitats.	

Science – Materials and their Properties – Level 3

1	I can sort a collection of materials in two ways and describe the ways in which they have sorted, e.g. by hardness, and by strength.	
2	I can demonstrate a variety of ways of sorting a collection of materials in succession, e.g. first by colour, then by transparency, then by absorbency and describe groupings.	
3	I can select suitable materials for a particular purpose, e.g. choose transparent materials for making the cover of a picture in a frame.	
4	I can explain why a material is suitable or unsuitable for a particular purpose, e.g. explain that a chocolate kettle is no good because it would melt.	
5	I can classify changes as reversible and irreversible, e.g. complete a table of simple changes in the kitchen, making toast, melting butter, making chocolate drops, making coffee.	

Science – Materials and their Properties – level 2

1	I can name some common materials, e.g. plastic, wood, water.	
2	I can compare materials, e.g. say “This one is rough but this one is smooth” or “This one's hot, this one's cold”..	
3	I can sort materials into groups, e.g. rough and smooth	
4	I can describe the groupings of materials, e.g. “These ones will pour, these ones will not”	
5	I can describe how to change materials, e.g. “The butter goes runny when it's hot”, “The plasticine stretched when I pulled it”.	

Science – Life Processes and Living – Level 3

1	I can describe differences between living and non-living things, e.g. can say that rabbits have live young, but toy rabbits do not. I can identify features of animals appropriate to their environments, e.g. when asked “Why do fish have fins?” can suggest that these are to help it swim.	
2	I can identify features of animals appropriate to their environments, e.g. when asked “Why do fish have fins?” can suggest that these are to help it swim.	
3	I can explain simple changes in living things, e.g. I can suggest reasons why a plant is dying.	
4	I can explain more abstract changes in living things, e.g. that sugary foods can damage the teeth of a human.	
5	I can explain changes in living things which result from environmental changes, e.g. explain why cats moult in the summer.	

Science – Life Processes and Living things – Level 4

1	I can describe relationships between plants and animals, e.g. say that greenfly eat rose leaves.	
2	I can identify organs of different plants, e.g. I can name and locate the stamens in a daffodil and tulip.	
3	I can group living things using keys based on observable external features.	
4	I can name some of the major organs of the body and identify the positions of these organs, e.g. name heart and lungs and mark position of these in an outline of a body.	
5	I can describe relationships between plants and animals in a habitat, e.g. construct simple food chains.	

Science – Materials and their Properties – P8

1	I can request actions and events, e.g. "Squash it" "Splash the water," "Mix it up"	
2	I can describe characteristics of objects and events they observe, e.g. I can say "It's soft," "It's sloppy."	
3	I can describe something as it happens, e.g. in response to the question "What is happening to the mixture" I can say "It's fizzy."	
4	I can communicate observations through drawings which can be recognised, e.g. a house with windows.	
5	I can respond to reminders about short sequences, e.g. when asked "What happened to the bread" can say that it changed into toast.	

Science – Materials and their Properties – level 1

1	I can recognise simple properties of materials, e.g. colour in pictures of things which are soft.	
2	I can communicate what I did, e.g. can say "We squashed the sponges."	
3	I can use adjectives to describe simple properties of materials, e.g. hard, soft.	
4	I can use a wider range of adjectives to describe materials, e.g. heavy, light.	
5	I can describe materials using more than one adjective, e.g. say "It is white and smooth".	