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| https://img.cdn.schooljotter2.com/sampled/12845791/100/100/nocrop/https://img.cdn.schooljotter2.com/sampled/12845791/100/100/nocrop/**Progression in Science at Abbey KS1 and KS2** |
| **Topic** | **KS1** | **Lower KS2** | **Upper KS2** |
| **Animals Including****Humans (including Y6****Evolution and Inheritance)** | **Y1**● identify and name a variety ofcommon animals including fish,amphibians, reptiles, birds and mammals |  |  |
| **Y1**● identify and name a variety ofcommon animals that arecarnivores, herbivores andomnivores(***Y2*** *– Living things and their habitats:*● *describe how animals obtain**their food from plants and**other animals, using the idea of**a simple food chain, and**identify and name different**sources of food)* | **Y4**● construct and interpret a varietyof food chains, identifying producers, predators and prey |  |
| **Y1**● describe and compare thestructure of a variety ofcommon animals (fish,amphibians, reptiles, birds andmammals including pets)● identify, name, draw and labelthe basic parts of the humanbody and say which part of thebody is associated with eachsense | **Y3**● identify that humans and someother animals have skeletonsand muscles for support,protection and movement**Y4**● describe the simple functions ofthe basic parts of the digestivesystem in humans● identify the different types ofteeth in humans and theirsimple functions | **Y6**● identify and name the mainparts of the humancirculatory system, anddescribe the functions ofthe heart, blood vessels andblood● describe the ways in whichnutrients and water aretransported within animals,including humans |
| **Animals Including****Humans (including Y6****Evolution and Inheritance)** | **Y2**● notice that animals, includinghumans, have offspring whichgrow into adults |  | **Y5**● describe the changes ashumans develop to old age**Y6** evolution and inheritance● recognise that living thingsproduce offspring of thesame kind, but normallyoffspring vary and are notidentical to their parents*(****Y5*** *Living things and their habitats:**● describe the differences in**the life cycles of a mammal,**an amphibian, an insect and a bird)* |
| **Y2**● find out about and describethe basic needs of animals,including humans, for survival(water, food and air)● describe the importance forhumans of exercise, eating theright amounts of different typesof food, and hygiene | **Y3**● identify that animals, includinghumans, need the right typesand amount of nutrition, andthat they cannot make theirown food; they get nutritionfrom what they eat | **Y6**● recognise the impact ofdiet, exercise, drugs andlifestyle on the way theirbodies function● describe the ways in whichnutrients and water aretransported within animals,including humans |
|  | *(****Y3*** *Rocks:*● *describe in simple terms how**fossils are formed when things**that have lived are trapped**within rock)* | **Y6** Evolution and inheritance● recognise that living thingshave changed over timeand that fossils provideinformation about livingthings that inhabited theEarth millions of years ago● identify how animals andplants are adapted to suittheir environment indifferent ways and thatadaptation may lead to evolution |
| **Plants** | **Y1** ● identify and name a variety ofcommon wild and gardenplants, including deciduousand evergreen trees |  |  |
| **Y1**● identify and describe the basicstructure of a variety ofcommon flowering plants,including trees | **Y3**● identify and describe thefunctions of different parts offlowering plants: roots,stem/trunk, leaves and flowers● investigate the way in whichwater is transported withinplants |  |
| **Y2**● observe and describe howseeds and bulbs grow intomature plants | **Y3**● explore the part that flowersplay in the life cycle of floweringplants, including pollination,seed formation and seeddispersal | *(****Y5*** *Living things and their habitats:**● describe the life process of**reproduction in some plants**and animals)* |
| **Y2**● find out and describe howplants need water, light and asuitable temperature to growand stay healthy | **Y3**● explore the requirements ofplants for life and growth (air,light, water, nutrients from soil,and room to grow) and howthey vary from plant to plant |  |
| **Living things and their habitats** | **Y2**● identify that most living things livein habitats to which they aresuited and describe how differenthabitats provide for the basicneeds of different kinds of animalsand plants, and how they dependon each other● identify and name a variety ofplants and animals in theirhabitats, including microhabitats● describe how animals obtain theirfood from plants and otheranimals, using the idea of a simplefood chain, and identify andname different sources of food | **Y4****●** recognise that environments canchange and that this cansometimes pose dangers to livingthings(***Y4*** *Animals including humans:*● *construct and interpret a variety of**food chains, identifying producers,**predators and prey* ) |  |
|  | **Y4**● recognise that living things can begrouped in a variety of ways● explore and use classification keysto help group, identify and name avariety of living things in their localand wider environment | **Y6**● describe how living things areclassified into broad groupsaccording to commonobservable characteristics andbased on similarities anddifferences, includingmicro-organisms, plants andanimals● give reasons for classifyingplants and animals based onspecific characteristics |
| *(****Y2***  *Animals including Humans:**● notice that animals, including**humans, have offspring which**grow into adults)***Y2**● explore and compare thedifferences between things thatare living, dead, and things thathave never been alive |  | **Y5**● describe the differences in thelife cycles of a mammal, anamphibian, an insect and abird● describe the life process ofreproduction in some plantsand animals |
| **Materials:****- Everyday materials (Y1)****- Uses of everyday materials (Y2)****- Rocks (Y3)****- States of matter (Y4)****- Properties & changes of materials (Y5)****Materials:****- Everyday materials (Y1)****- Uses of everyday materials (Y2)****- Rocks (Y3)****- States of matter (Y4)****- Properties & changes of materials (Y5)** | **Y1** everyday materials● distinguish between an objectand the material from which itis made● identify and name a variety ofeveryday materials, includingwood, plastic, glass, metal,water, and rock**Y2** Uses of everyday materials:● identify and compare thesuitability of a variety ofeveryday materials, includingwood, metal, plastic, glass,brick, rock, paper andcardboard for particular uses |  | **Y5** properties and changes ofmaterials● give reasons, based onevidence from comparativeand fair tests, for theparticular uses of everydaymaterials, including metals,wood and plastic |
| **Y1** everyday materials● describe the simple physicalproperties of a variety ofeveryday materials● compare and group togethera variety of everyday materialson the basis of their simplephysical properties | **Y3** Rocks● compare and group togetherdifferent kinds of rocks on thebasis of their appearance andsimple physical propertiesY4 States of matter:● compare and group materialstogether, according to whetherthey are solids, liquids or gases | **Y5** Properties and changes ofmaterials● compare and grouptogether everyday materialson the basis of theirproperties, including theirhardness, solubility,transparency, conductivity(electrical and thermal),and response to magnets |
|  | **Y4** states of matter● identify the part played byevaporation and condensationin the water cycle andassociate the rate ofevaporation with temperature |  |
| **Y2** uses of everyday materials● find out how the shapes of solidobjects made from somematerials can be changed bysquashing, bending, twisting and stretching | **Y4** states of matter● observe that some materialschange state when they areheated or cooled, and measureor research the temperature atwhich this happens in degreesCelsius (°C) | **Y5** properties and changes ofmaterials● explain that some changesresult in the formation ofnew materials, and that thiskind of change is not usuallyreversible, includingchanges associated withburning and the action ofacid on bicarbonate ofsoda● demonstrate that dissolving,mixing and changes ofstate are reversible changes● know that some materialswill dissolve in liquid to forma solution, and describehow to recover a substancefrom a solution● use knowledge of solids,liquids and gases to decidehow mixtures might beseparated, includingthrough filtering, sieving andevaporating |
|  | **Y3** (rocks)● describe in simple terms howfossils are formed when thingsthat have lived are trappedwithin rock● recognise that soils are madefrom rocks and organic matter | (***Y6*** *Evolution and inheritance:**● recognise that living things**have changed over time**and that fossils provide**information about living**things that inhabited the**Earth millions of years ago)* |
| **Forces and magnets (Y3)****Forces (Y5)** |  | **Y3** (forces and magnets)● compare how things move ondifferent surfaces● notice that some forces needcontact between 2 objects, butmagnetic forces can act at adistance● observe how magnets attract orrepel each other and attractsome materials and not others● compare and group together avariety of everyday materials onthe basis of whether they areattracted to a magnet, andidentify some magneticmaterials● describe magnets as having 2Poles● predict whether 2 magnets willattract or repel each other,depending on which poles arefacing | **Y5** (forces)● explain that unsupportedobjects fall towards theEarth because of the forceof gravity acting betweenthe Earth and the fallingobject● identify the effects of airresistance, water resistanceand friction, that actbetween moving surfaces● recognise that somemechanisms includinglevers, pulleys and gearsallow a smaller force tohave a greater effect |
| **Electricity (Y4 and Y6)** |  | **Y4**● identify common appliancesthat run on electricity● construct a simple serieselectrical circuit, identifying andnaming its basic parts, includingcells, wires, bulbs, switches andbuzzers● identify whether or not a lampwill light in a simple series circuit,based on whether or not thelamp is part of a complete loopwith a battery● recognise that a switch opensand closes a circuit andassociate this with whether ornot a lamp lights in a simpleseries circuit● recognise some commonconductors and insulators, andassociate metals with beinggood conductors | **Y6**● associate the brightness ofa lamp or the volume of abuzzer with the number andvoltage of cells used in thecircuit● compare and give reasonsfor variations in howcomponents function,including the brightness ofbulbs, the loudness ofbuzzers and the on/offposition of switches● use recognised symbolswhen representing a simplecircuit in a diagram |
| **Light (Y3 and Y6)** |  | **Y3** ● recognise that they need light inorder to see things and that darkis the absence of light● notice that light is reflected fromSurfaces● recognise that light from the suncan be dangerous and thatthere are ways to protect theireyes● recognise that shadows areformed when the light from alight source is blocked by anopaque object● find patterns in the way that thesize of shadows change | **Y6** ● recognise that light appearsto travel in straight lines● use the idea that lighttravels in straight lines toexplain that objects areseen because they give outor reflect light into the eye● explain that we see thingsbecause light travels fromlight sources to our eyes orfrom light sources to objectsand then to our eyes● use the idea that lighttravels in straight lines toexplain why shadows havethe same shape as theobjects that cast them |
| **Sound (Y4)** |  | **Y4** ● identify how sounds are made,associating some of them withsomething vibrating● recognise that vibrations fromsounds travel through a mediumto the ear● find patterns between the pitchof a sound and features of theobject that produced it● find patterns between thevolume of a sound and thestrength of the vibrations thatproduced it● recognise that sounds getfainter as the distance from thesound source increases |  |
| **Seasonal changes (Y1)****Earth and space (Y5)** | **Y1:**● observe changes across the 4Seasons● observe and describe weatherassociated with the seasonsand how day length varies |  | **Y5:**● describe the movement ofthe Earth and other planetsrelative to the sun in thesolar system● describe the movement ofthe moon relative to theEarth● describe the sun, Earth andmoon as approximatelyspherical bodies● use the idea of the Earth’srotation to explain day andnight and the apparentmovement of the sun acrossthe sky |
| **Working Scientifically Skills Progression Grid** | asking simple questions andrecognising that they can beanswered in different ways | asking relevant questions and using differenttypes of scientific enquiries to answer them | planning different types of scientificenquiries to answer questions, includingrecognising and controlling variableswhere necessary |
| performing simple tests | setting up simple practical enquiries,comparative and fair tests | using test results to make predictions toset up further comparative and fair tests |
| observing closely, using simpleequipment | making systematic and careful observationsand, where appropriate, taking accuratemeasurements using standard units, using arange of equipment, including thermometersand data loggers | taking measurements, using a range ofscientific equipment, with increasingaccuracy and precision, taking repeatreadings when appropriate |
| using their observations and ideas tosuggest answers to questionsgathering and recording data tohelp in answering questions | gathering, recording, classifying and presentingdata in a variety of ways to help in answeringquestionsrecording findings using simple scientificlanguage, drawings, labelled diagrams, keys,bar charts, and tables | recording data and results of increasingcomplexity using scientific diagramsand labels, classification keys, tables,scatter graphs, bar and line graphs |
|  | reporting on findings from enquiries, includingoral and written explanations, displays orpresentations of results and conclusionsusing results to draw simple conclusions, makepredictions for new values, suggestimprovements and raise further questions | reporting and presenting findings fromenquiries, including conclusions, causalrelationships and explanations of and adegree of trust in results, in oral andwritten forms such as displays and otherpresentations |
| identifying and classifying | identifying differences, similarities or changesrelated to simple scientific ideas and processesusing straightforward scientific evidence toanswer questions or to support their findings. | identifying scientific evidence that hasbeen used to support or refute ideas or arguments |