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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 of  common animals including fish,  amphibians, reptiles, birds and mammals |  |  |
| **Y1**  ● identify and name a variety of  common animals that are  carnivores, herbivores and  omnivores  (***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 variety  of food chains, identifying producers, predators and prey |  |
| **Y1**  ● describe and compare the  structure of a variety of  common animals (fish,  amphibians, reptiles, birds and  mammals including pets)  ● identify, name, draw and label  the basic parts of the human  body and say which part of the  body is associated with each  sense | **Y3**  ● identify that humans and some  other animals have skeletons  and muscles for support,  protection and movement  **Y4**  ● describe the simple functions of  the basic parts of the digestive  system in humans  ● identify the different types of  teeth in humans and their  simple functions | **Y6**  ● identify and name the main  parts of the human  circulatory system, and  describe the functions of  the heart, blood vessels and  blood  ● describe the ways in which  nutrients and water are  transported within animals,  including humans |
| **Animals Including**  **Humans (including Y6**  **Evolution and Inheritance)** | **Y2**  ● notice that animals, including  humans, have offspring which  grow into adults |  | **Y5**  ● describe the changes as  humans develop to old age  **Y6** evolution and inheritance  ● recognise that living things  produce offspring of the  same kind, but normally  offspring vary and are not  identical 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 describe  the basic needs of animals,  including humans, for survival  (water, food and air)  ● describe the importance for  humans of exercise, eating the  right amounts of different types  of food, and hygiene | **Y3**  ● identify that animals, including  humans, need the right types  and amount of nutrition, and  that they cannot make their  own food; they get nutrition  from what they eat | **Y6**  ● recognise the impact of  diet, exercise, drugs and  lifestyle on the way their  bodies function  ● describe the ways in which  nutrients and water are  transported 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 things  have changed over time  and that fossils provide  information about living  things that inhabited the  Earth millions of years ago  ● identify how animals and  plants are adapted to suit  their environment in  different ways and that  adaptation may lead to evolution |
| **Plants** | **Y1**  ● identify and name a variety of  common wild and garden  plants, including deciduous  and evergreen trees |  |  |
| **Y1**  ● identify and describe the basic  structure of a variety of  common flowering plants,  including trees | **Y3**  ● identify and describe the  functions of different parts of  flowering plants: roots,  stem/trunk, leaves and flowers  ● investigate the way in which  water is transported within  plants |  |
| **Y2**  ● observe and describe how  seeds and bulbs grow into  mature plants | **Y3**  ● explore the part that flowers  play in the life cycle of flowering  plants, including pollination,  seed formation and seed  dispersal | *(****Y5*** *Living things and their habitats:*  *● describe the life process of*  *reproduction in some plants*  *and animals)* |
| **Y2**  ● find out and describe how  plants need water, light and a  suitable temperature to grow  and stay healthy | **Y3**  ● explore the requirements of  plants for life and growth (air,  light, water, nutrients from soil,  and room to grow) and how  they vary from plant to plant |  |
| **Living things and their habitats** | **Y2**  ● identify that most living things live  in habitats to which they are  suited and describe how different  habitats provide for the basic  needs of different kinds of animals  and plants, and how they depend  on each other  ● identify and name a variety of  plants and animals in their  habitats, including microhabitats  ● 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**  **●** recognise that environments can  change and that this can  sometimes pose dangers to living  things  (***Y4*** *Animals including humans:*  ● *construct and interpret a variety of*  *food chains, identifying producers,*  *predators and prey* ) |  |
|  | **Y4**  ● recognise that living things can be  grouped in a variety of ways  ● explore and use classification keys  to help group, identify and name a  variety of living things in their local  and wider environment | **Y6**  ● describe how living things are  classified into broad groups  according to common  observable characteristics and  based on similarities and  differences, including  micro-organisms, plants and  animals  ● give reasons for classifying  plants and animals based on  specific characteristics |
| *(****Y2***  *Animals including Humans:*  *● notice that animals, including*  *humans, have offspring which*  *grow into adults)*  **Y2**  ● explore and compare the  differences between things that  are living, dead, and things that  have never been alive |  | **Y5**  ● describe the differences in the  life cycles of a mammal, an  amphibian, an insect and a  bird  ● describe the life process of  reproduction in some plants  and 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 object  and the material from which it  is made  ● identify and name a variety of  everyday materials, including  wood, plastic, glass, metal,  water, and rock  **Y2** Uses of everyday materials:  ● identify and compare the  suitability of a variety of  everyday materials, including  wood, metal, plastic, glass,  brick, rock, paper and  cardboard for particular uses |  | **Y5** properties and changes of  materials  ● give reasons, based on  evidence from comparative  and fair tests, for the  particular uses of everyday  materials, including metals,  wood and plastic |
| **Y1** everyday materials  ● describe the simple physical  properties of a variety of  everyday materials  ● compare and group together  a variety of everyday materials  on the basis of their simple  physical properties | **Y3** Rocks  ● compare and group together  different kinds of rocks on the  basis of their appearance and  simple physical properties  Y4 States of matter:  ● compare and group materials  together, according to whether  they are solids, liquids or gases | **Y5** Properties and changes of  materials  ● compare and group  together everyday materials  on the basis of their  properties, including their  hardness, solubility,  transparency, conductivity  (electrical and thermal),  and response to magnets |
|  | **Y4** states of matter  ● identify the part played by  evaporation and condensation  in the water cycle and  associate the rate of  evaporation with temperature |  |
| **Y2** uses of everyday materials  ● find out how the shapes of solid  objects made from some  materials can be changed by  squashing, bending, twisting and  stretching | **Y4** states of matter  ● observe that some materials  change state when they are  heated or cooled, and measure  or research the temperature at  which this happens in degrees  Celsius (°C) | **Y5** properties and changes of  materials  ● explain that some changes  result in the formation of  new materials, and that this  kind of change is not usually  reversible, including  changes associated with  burning and the action of  acid on bicarbonate of  soda  ● demonstrate that dissolving,  mixing and changes of  state are reversible changes  ● know that some materials  will dissolve in liquid to form  a solution, and describe  how to recover a substance  from a solution  ● use knowledge of solids,  liquids and gases to decide  how mixtures might be  separated, including  through filtering, sieving and  evaporating |
|  | **Y3** (rocks)  ● describe in simple terms how  fossils are formed when things  that have lived are trapped  within rock  ● recognise that soils are made  from 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 on  different surfaces  ● notice that some forces need  contact between 2 objects, but  magnetic forces can act at a  distance  ● observe how magnets attract or  repel each other and attract  some materials and not others  ● compare and group together a  variety of everyday materials on  the basis of whether they are  attracted to a magnet, and  identify some magnetic  materials  ● describe magnets as having 2  Poles  ● predict whether 2 magnets will  attract or repel each other,  depending on which poles are  facing | **Y5** (forces)  ● explain that unsupported  objects fall towards the  Earth because of the force  of gravity acting between  the Earth and the falling  object  ● identify the effects of air  resistance, water resistance  and friction, that act  between moving surfaces  ● recognise that some  mechanisms including  levers, pulleys and gears  allow a smaller force to  have a greater effect |
| **Electricity (Y4 and Y6)** |  | **Y4**  ● identify common appliances  that run on electricity  ● construct a simple series  electrical circuit, identifying and  naming its basic parts, including  cells, wires, bulbs, switches and  buzzers  ● identify whether or not a lamp  will light in a simple series circuit,  based on whether or not the  lamp is part of a complete loop  with a battery  ● recognise that a switch opens  and closes a circuit and  associate this with whether or  not a lamp lights in a simple  series circuit  ● recognise some common  conductors and insulators, and  associate metals with being  good conductors | **Y6**  ● associate the brightness of  a lamp or the volume of a  buzzer with the number and  voltage of cells used in the  circuit  ● compare and give reasons  for variations in how  components function,  including the brightness of  bulbs, the loudness of  buzzers and the on/off  position of switches  ● use recognised symbols  when representing a simple  circuit in a diagram |
| **Light (Y3 and Y6)** |  | **Y3**  ● recognise that they need light in  order to see things and that dark  is the absence of light  ● notice that light is reflected from  Surfaces  ● recognise that light from the sun  can be dangerous and that  there are ways to protect their  eyes  ● recognise that shadows are  formed when the light from a  light source is blocked by an  opaque object  ● find patterns in the way that the  size of shadows change | **Y6**  ● recognise that light appears  to travel in straight lines  ● use the idea that light  travels in straight lines to  explain that objects are  seen because they give out  or reflect light into the eye  ● explain that we see things  because light travels from  light sources to our eyes or  from light sources to objects  and then to our eyes  ● use the idea that light  travels in straight lines to  explain why shadows have  the same shape as the  objects that cast them |
| **Sound (Y4)** |  | **Y4**  ● identify how sounds are made,  associating some of them with  something vibrating  ● recognise that vibrations from  sounds travel through a medium  to the ear  ● find patterns between the pitch  of a sound and features of the  object that produced it  ● find patterns between the  volume of a sound and the  strength of the vibrations that  produced it  ● recognise that sounds get  fainter as the distance from the  sound source increases |  |
| **Seasonal changes (Y1)**  **Earth and space (Y5)** | **Y1:**  ● observe changes across the 4  Seasons  ● observe and describe weather  associated with the seasons  and how day length varies |  | **Y5:**  ● describe the movement of  the Earth and other planets  relative to the sun in the  solar system  ● describe the movement of  the moon relative to the  Earth  ● describe the sun, Earth and  moon as approximately  spherical bodies  ● use the idea of the Earth’s  rotation to explain day and  night and the apparent  movement of the sun across  the sky |
| **Working Scientifically Skills Progression Grid** | asking simple questions and  recognising that they can be  answered in different ways | asking relevant questions and using different  types of scientific enquiries to answer them | planning different types of scientific  enquiries to answer questions, including  recognising and controlling variables  where necessary |
| performing simple tests | setting up simple practical enquiries,  comparative and fair tests | using test results to make predictions to  set up further comparative and fair tests |
| observing closely, using simple  equipment | making systematic and careful observations  and, where appropriate, taking accurate  measurements using standard units, using a  range of equipment, including thermometers  and data loggers | taking measurements, using a range of  scientific equipment, with increasing  accuracy and precision, taking repeat  readings when appropriate |
| using their observations and ideas to  suggest answers to questions  gathering and recording data to  help in answering questions | gathering, recording, classifying and presenting  data in a variety of ways to help in answering  questions  recording findings using simple scientific  language, drawings, labelled diagrams, keys,  bar charts, and tables | recording data and results of increasing  complexity using scientific diagrams  and labels, classification keys, tables,  scatter graphs, bar and line graphs |
|  | reporting on findings from enquiries, including  oral and written explanations, displays or  presentations of results and conclusions  using results to draw simple conclusions, make  predictions for new values, suggest  improvements and raise further questions | reporting and presenting findings from  enquiries, including conclusions, causal  relationships and explanations of and a  degree of trust in results, in oral and  written forms such as displays and other  presentations |
| identifying and classifying | identifying differences, similarities or changes  related to simple scientific ideas and processes  using straightforward scientific evidence to  answer questions or to support their findings. | identifying scientific evidence that has  been used to support or refute ideas or arguments |