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| **CURRUCULLUM PROGRESSION GRID: Science Key Stage One** | | | | | |  |  |
| **KEY STAGE 1** | | | | | |  |  |
| **Working scientifically** | **Animals including humans** | **Plants** | **Seasonal changes** | **Living things and their habitats** | **Everyday materials and their uses** | | |
| **NC Link:**  Pupils should be taught to:  - Ask simple questions and recognising that they can be answered in different ways  - Observe closely, using simple equipment  - Perform simple tests  - Identify and classify  - Use their observations and ideas to suggest answers to questions  - Gather and record data to help in answering questions. | **NC Link:**  Pupils should be taught to:  - Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals  - Identify and name a variety of common animals that are carnivores, herbivores and omnivores  - 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  - Notice that animals, including humans, have offspring which grow into adults  - 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. | **NC Link:**  Pupils should be taught to:  - 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, including trees.  - Observe and describe how seeds and bulbs grow into mature plants  - Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy | **NC Link:**  Pupils should be taught to:  - Observe changes across the four seasons - Observe and describe weather associated with the seasons and how day length varies. | **NC Link:**  Pupils should be taught to:  - Explore and compare the differences between things that are living, dead, and things that have never been alive  - 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. | **NC Link:**  Pupils should be taught to:  - 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  - 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.  - Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses  - Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. | | |
| **Theme links:**  Throughout | **Theme links:**  ‘Paddington’  Cycle A-Spr 2  ‘Great and ghastly events’  Cycle B-Aut 2  ‘Who should live in the zoo?’  Cycle B-Spring 1&2  ‘Pirates’  Cycle B-Sum- 1&2 | **Theme links:**  ‘What a wonderful world’ Cycle A-Aut 1 &2  ‘Victorians’ Cycle A-Sum 1 & 2  ‘Pirates’-Cycle B-Sum 2 | **Theme links**:  Throughout | **Theme links:**  ‘Great and ghastly events’  Cycle B – Aut 2  ‘Who should live in the zoo?’ Cycle B-Spr 1&2 | **Theme links:**  ‘Paddington’ Cycle A  Spring 1  ‘Great and ghastly events’ Cycle B Aut 1 | | |
| **Builds On: ELGs:**  Understanding  -Beginning to understand ‘why’ and ‘how’ questions.  Mathematics  - Records, using marks that they can interpret and explain.  Shape, Space and Measure.  - Measures short periods of time in simple ways.  The World  - Looks closely at similarities, differences, patterns and change.  Being Imaginative  - Create simple representations of events, people and objects. | **Builds On: ELGs:**  Health and self-care  - Eats a healthy range of foodstuffs and understands need for variety in food.  - Shows some understanding that good practices with regard to exercise, eating, sleeping and hygiene can contribute to good health. | **Builds On: ELGs:**  The World  -Can talk about some of the things they have observed such as plants, animals, natural and found objects. | **Builds On: ELGs:**  The World  - Developing an understanding of growth, decay and changes over time | **Builds On: ELGs:**  The World  - Developing an understanding of growth, decay and changes over time  - Pupils know about similarities and differences in relation to places.  - Comments and asks questions about aspects of their familiar world such as the place where they live or the natural world.  - Can talk about some of the things they have observed such as plants, animals, natural and found objects.  - Shows care and concern for living things and the environment. | **Builds On: ELGs:**  The World  - Talks about why things happen and how things work | | |
| **Intent (overarching success criteria)**  - Pupils can suggest ideas, ask simple questions and know that they can be answered/investigated in different ways including simple secondary sources, such as books and video clips.  - Follow instructions to complete a simple test individually or in a group and to begin to recognise when something is unfair.  - Observe something closely and describe changes over time.  - Pupils can use simple equipment, such as hand lenses or egg timers to take measurements, make observations and carry out simple tests.  - Decide, with help, how to group materials, living things and objects, noticing changes over time and beginning to see patterns.  - Gather data, record and talk about their findings, in a range of ways, using simple scientific vocabulary and explain what they have found out.  - Pupils can identify simple patterns and/or relationships using simple comparative language.  - Use simple scientific language to explain what they have found out. | **Intent (overarching success criteria)**  - Pupils can identify and name common animals and use the terms carnivores, herbivores and omnivores.  - They also know the structure of the common animals (fish, birds, amphibians, reptiles including pets.  - They can compare the variety of structures they have learnt about.  - Pupils can name, draw, label basic human body parts  – They can describe how the body parts are associated with the senses.  -They can describe how offspring grow up to be adults.  -Pupils know the lifecycle of animals e.g.-egg-chicken  - Pupils can explain how humans need food, water and air to survive.  - Pupils can say how exercise is important for healthy humans.  - They can describe how eating a balanced diet is good for humans  - They can explain the importance of hygiene to help keep humans healthy. | **Intent (overarching success criteria)**  - Pupils can identify and name wild and garden plants.  -They identify and name a range of common plants and trees.  -They recognise deciduous and evergreen trees.  -They are able to identify the structure of a plant and label it e.g. root, stem, leaf, flower.  - They can describe how seeds and bulbs grow to mature plants.  -They can also describe the conditions needed for plants to grow and stay healthy- water, soil, nutrients, sunlight and temperature.  **’** | **Intent (overarching success criteria)**  -Pupils can name the four seasons in order.  -Pupils can describe the weather associated with each season.  - Pupils can observe weather changes over time.  - They can describe daylight changes.  - They can describe how the day length changes at different times of the year.  -Pupils can compare weather in the UK to different places in the world. | **Intent (overarching success criteria)**  - Pupils can identify living things, things that are dead and those which have never been alive.  -They can describe how an animal lives in a habitat it is suitable for.  - Pupils can name a variety of plants and animals in their habitat e.g. in the school grounds.  -Pupils can describe a range of habitats  - Pupils can describe how they all belong to a food chain. | **Intent (overarching success criteria)**  - Pupils can name everyday materials e.g. glass, brick. wood etc.  - They can identify how a variety of objects are made and the material it is made from.  -Pupils can identify materials that are natural and those that are man-made.  - They can discuss the variety of uses the objects have.  - They can describe the physical features of the material using their senses.  - Pupils can discuss the materials suitability and why it has been chosen for a specific job e.g. waterproof for being a raincoat.  - Pupils will be able to group and compare materials based on their physical properties.  - Pupils can find out how the material can change shape through twisting, bending, squashing. | | |
|  | **Extended Write:**  **Write an information leaflet about animals for a farm, pet shop or zoo.** | **Extended Write:**  **Write a set of instructions for growing a ‘Grass head family.** | **Extended Write:**  **Scripting, presenting and filming a weather report for each of the seasons. At the end compare all four seasons.** | **Extended Write:**  **Write a story about an animal and describe its habitat.** | **Extended Write:**  **Links to ‘Where Going On a Bear Hunt.’ Create a new version of the story using different materials and their properties**  **-Uh oh! Glass-shiny, smooth, see-through glass…clink, smash, clink, smash!**  **-Create an advert for a waterproof piece of clothing for a character** | | |
| **Vocabulary:**  Question  Answer  Observe  Observing  Equipment  Identify  Classify  Sort  Diagram  Chart  Map  Data  Compare  Contrast  Describe  Group  Record | **Vocabulary:**   |  | | --- | | Fish  Reptiles  Mammals  Birds  Amphibians (+ examples of each)  Herbivore  Omnivore  Carnivore  Leg  Arm  Elbow  Head  Shoulder  Knee  Neck  Ear  Nose  Back  Wings  Beak | | Survival  Water  Air  Food  Adult  Baby  Offspring  Kitten  Calf  Puppy  Exercise  Hygiene |   Senses  Taste  Touch  Feel  Hearing  Smell | **Vocabulary:**   |  | | --- | | Deciduous  Evergreen trees, Leaves  Flowers (blossom)  Petal  Fruit  Roots  Bulb  Seed  Trunk  Branches  Stem | | Water  Light  Temperature  Growth | | **Vocabulary:**   |  | | --- | | Summer  Spring  Autumn  Winter  Sun  Day  Moon  Night  Light  Dark | | **Vocabulary:**   |  | | --- | | Living  Dead  Habitat  Energy  Food chain Predator  Prey  Woodland  Pond  Desert | | **Vocabulary:**   |  | | --- | | Wood  Plastic  Glass  Paper  Water  Metal  Rock  Hard  Soft  Bendy  Rough  Smooth | | Stretchy  Stiff  Shiny  Dull  Waterproof  Absorbent  Opaque  Transparent  Brick  Paper  Fabrics  Squashing  Bending  Twisting  Stretching  Elastic  Foil | | | |
|  | **Scientists**  Steve Irwin  (Naturalist)  Jane Goodall  (Chimpanzees and similarities to humans) | **Scientists**  Beatrix Potter  (Natural scientist and conservationist)  James Edward Smith  (Botanist) | **Scientists**  Eunice Foote  (Climate change) | **Scientists**  David Attenborough  (Naturalist)  Steve Backshall  (Naturalist) | **Scientists**  Ole Kirk Christiansen  (Invented Lego)  Charles Macintosh  (Invented waterproof material)  Jamie Garcia  (Discovered a new kind of plastic which is fully recyclable and super strong) | | |
|  | **Reading books**  - Handa’s Surprise (Balanced diet)  - Once there were giants (lifecycles) | **Reading books**  - Jack and the Beanstalk-Richard Walker (Plants)  - The Last Wolf (Take on Red Riding Hood)  - The little Gardener  - A Seed is Sleepy-Dianna Aston  - Ten Seeds-Ruth Brown | **Reading books**  - One year with Kipper-Mick Inkpen  - Tree: Seasons Come, Seasons Go -Patricia Hegarty  - The Growing Story | **Reading books**  - Little Red Riding Hood (Habitats)  - The Gruffalo (Habitats)  - Superworm-Julia Donaldson  - Snail Trail-Ruth Brown | **Reading books**  - The Three Little Pigs –Lesley Sims (Materials)  - The Tin Forest-Helen Ward  - Traction Man-Mini Grey | | |