Cheadle Catholic Infant School Science Overview 2024-25

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|  | Autumn 1 | Autumn 2 | Spring 1 | Spring 2 | | Summer 1 | Summer 2 |
| NURSERY | The Colour Monster | The Gruffalo | Nursery Rhymes | Traditional Tales | | Jasper’s Beanstalk | What the ladybird heard |
| Knowledge and Understanding of the World. | Knowing our similarities and differences. | | Looking at changes over time. | | | Growing –looking after plants & animals. | |
| HOOK | Discussion of what we need to stay healthy and safe, through our daily routines, hand washing and healthy snacks.  Weekly P.E lessons - notice changes that happen in the body.  Explore the differences between some animals and us.  Look at pictures of themselves as babies and talk about how their needs have changed, discussing families.  Use of senses; feeling dough or listening to sounds in the environment, such as sirens or farm animals.  Dentist visit- we use this to talk about and show interest in different occupations.  Autumn walk- collect materials and explore their similarities and differences. | | Winter Walk.  Observation and manipulation of objects and materials to identify differences and similarities.  Play opportunities in our mud kitchen - access to a range of natural and manmade resources    Questions about why things happen and how things work.  Use Incy Wincy spider to open up conversations about rain and different geographical water features.  Play in our construction area: activities such as increasing the incline of a slope to observe how fast a vehicle travels or opening a mechanical toy to see how it works. We talk about different forces.  Questioning and observation during continuous provision in areas like the sand or water tray- looking at floating and sinking.  Spring walk- looking at the weather and also investigate shadows. | | | Growing - Living eggs- Watching chicks develop and the life cycle of a chick.  Observations of animals and plants, explain why some things occur and talk about changes.  Exploring life cycles by observing butterfly houses and watching chicks hatch.  A trip to the farm to explore animals at close quarters.  Explore creatures, people, plants and objects in their natural environments.  We grow plants and vegetables, exploring what they  need to grow.  Take photos of seeds that they grow and leave them available for the children to order and revisit independently. Look at the life cycle of a plant.  Mini-beast hunt.  Look for bugs over the course of a week.  Look at life cycle of a butterfly and use words to  describe the stages e.g. first it was an egg, then it was a  caterpillar, now it is a butterfly.  Look at the habitat of minibeasts, how they are different for animals and how our behaviour can change the environment.  Melting Experiment.  Summer walk- looking at the weather and temperature. | |
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| RECEPTION | All about Me | Seasons/Celebrations | Superheroes | | Space | Minibeasts/Growing | Big Wide World |
| HOOK | Similarities and differences in relation to family and friends.  My body and its body parts.  Changes since birth (baby photos).  Visit from Ann Jepson- Dental Nurse.  Introduction discussion of plants, animals and natural objects.  The natural world – explore the world around them.  Observe the effects of exercise on their bodies.  Learn about healthy diets.  Healthy foods – not healthy foods.  Talk about some of the things which they have observed in this topic. | Seasons and seasonal change.  Describe the world  around us.  Caring for the environment.  Walk to Bruntwood Park – looking at the Season Autumn.  The natural world – observation of changes that occur.  Explore the natural world around them.  Make observations and drawing pictures of plants and animals.  Memory boxes- recap on what they have learnt in this topic. | Pushing and pulling forces.  Talk about why things happen and how they work.  Investigate magnets.  Exploring technology.  Which materials are  best for making a boat.  Float/sink test.  Exploring ways of  travel using different parts of the body.  Investigate the  changes and in the natural world.  Winter walk. | | Investigate Space- discovering and naming the planets.  Look at, learn the names and describe planets.  Visit of the Wonder dome- being in Space experience.  Children use technology to gain information.  Making space rockets and planets.  Our planet Earth and the sun.  Can we travel into space?  Comparison- could we live on the moon? Describe  the moon.  Look closely at the similarities, differences, patterns and change. | Research Mini beast facts.  Mini beast Hunt in the wildlife area and Bruntwood Park.  Identifying mini beasts and classifying them in groups.  Looking at habitats.  Life cycle of a frog.  Growing Broad beans  and learning how to plant a seed.  Identifying what a plant needs to grow.  The natural world – careful observation and understanding changes.  Spring walk- Bruntwood  Park. | The natural world – investigate contrasting environments.  To know some similarities and differences in contrasting environments, e.g. weather.  Questions and finding answers about the world in which we live.  Safety when tackling new challenges and managing risks.  Re-cap on the importance of exercise, eating, sleeping, hygiene and good health.  Seaside- habitats  Who lives in the Ocean?  Summer sun safety.  Summer walk – Bruntwood  Park. |
| Text/Person | Growth, My body, Teeth.  Dental nurse. | Bruntwood Park, All the different seasons books. | Super Tato series. | | Wonder dome Experience. Space books.  Scientists- Mae Jemison, Katherine Johnson | Books about plants.  Mad about Mini beasts and other non-fiction texts. | Information texts about the world. |
| Vocab | Healthy/ unhealthy foods.  Oral hygiene/teeth. Body/body parts.  Baby, toddler, child, adult | Seasons, autumn, winter, spring, summer, weather. | Push pull, materials, magnet, magnetic  Float, sink, waterproof, not waterproof. | | Moon, stars, orbit, space, sun, planets, Earth. | Grow, stem, leaf, root, soil, sunlight, mini beast, lifecycle, change. | Environment, sea, sun, seasons, weather, animals. |
| YEAR 1 | **AUTUMN 1**  MY BODY AND ITS SENSES  TERRIFIC TREES  Seasonal changes:  Autumn | **AUTUMN 2**  MATERIALS  Seasonal changes:  Winter | **SPRING 1**  POLAR PLACES  Seasonal changes:  Winter to Autumn | | **SPRING 2**  ON SAFARI (ANIMALS)  Seasonal changes:  Spring | **SUMMER 1**  PLANTS WHERE WE LIVE  Seasonal changes:  Spring to Winter | **SUMMER 2**  SEASIDE AND SUMMER  Seasonal changes:  Summer  The four seasons |
| HOOK | A recap to our body parts  Labelling body parts  What are the 5 senses?  How we use our senses?  Senses experiment- fruits    Parts of a tree  Learning the names of  common British trees  Knowing what deciduous and evergreen means- sorting  Explore world around us-  observation and notice  changes.  Seasons overview lesson,  How has the season changed from Summer?  Seasons – looking at Autumn  Senses walk/Autumn Walk to Bruntwood Park  Scientist: Linda Brown Buck | Name a selection of materials  Materials and matching  them to objects  Describe simple  physical properties of materials  Testing materials- absorbent and not absorbent  Material experiment – Prediction.  What are the best materials for a dog bed?  Classify materials by  their properties- grouping and sorting  Change of seasons – winter – discuss changes in clothes, daylight, trees and weather.  Scientist: Chester Greenwood | Research the Polar regions  Visit from a polar explorer-expedition talk  Snow gloves investigation- Which  glove is the warmest  and waterproof?  Explore mammals-  Polar animals  Identify & name Polar animals that are carnivore, herbivore & omnivore  Categorise animals  into groups: carnivore, herbivore and omnivore  What is Camouflage?  Re-cap on Trees  Seasons- Winter  Winter walk –  Bruntwood Park  Observation and compare to Autumn  Scientists/ Explorers: Robert Scott/ Roald Amundsen | | Identify & name a variety  of animals including amphibians, reptiles, mammals, birds and their features  Describe & compare the structure of a variety of animals  Which Birds live in our  local area?  Conduct a bird watch  How are birds different to us?  Compare ourselves to minibeasts who are invertebrates  Season- Spring  Scientist: David Attenborough | Grow sunflowers from seeds  What equipment do we need to grow a seed?  Sequence of planting  Structure of plants  Recap what does a  plant need to grow healthy?  How to plant a seed  Plant hunt – Which  plants grow in our local area?  Identify and name  common garden and  wild plants  Identify and name  leaves on trees  Spring walk –  Bruntwood Park  Observation and compare to Winter  Scientist: Waangari Maathai | Children become marine biologists  Hands on looking at the structure of fish  What would you find in a rockpool?  Identify seashore animals  Reduce, re-use, recycle- looking after our planet  Observation- lifecycle of a butterfly – growing a caterpillar  Into a butterfly  Science week- scientists:  Rachel Carson  Perform a skittles colour  change investigation to  observe over time  (end of year experiment)  Seasons- Summer  Summer walk- Seasons  Observation and compare to Spring  Scientist: Rachel Carson |
| Text/ Person/Place | Non-fiction texts- Bodies and senses  Seasons books, trees  Bruntwood Park  Linda Brown Buck | Materials- objects and non-fiction books  School grounds  Chester Greenwood | Polar explorer visitor Explorers(above)  Polar animals and Arctic/Antarctic non-fiction texts  Bruntwood Park | | Bird watching  School grounds  Different categories of animals books  David Attenborough | Grow sunflowers from seeds, Plants and  flower books,  Bruntwood Park  Waangari Maathai | Seaside animals and fish  Summer non fiction texts  School grounds  Rachel Carson |
| Vocab | Body Parts - Head, body, mouth, teeth, leg, neck, shoulder, hand, leg, foot, thumb, knee, toes, elbow. Skeleton, bones, muscle and skin.  Senses – touch, see, smell, taste, hear, eyes, sight, nose, ear, tongue, hand, fingers.  Trees - Roots, trunk, branches, leaves, bark, deciduous and evergreen.  Seasons- Autumn | Object, material, wood, plastic, glass, metal, water, rock, brick, paper, fabric, elastic, foil, card/cardboard, rubber, wool, clay, hard, soft, stretchy, stiff, bendy, floppy, waterproof, absorbent, breaks/tears, rough, smooth, shiny, dull, see-through, not see-through, opaque, transparent.  Seasons- Winter | Herbivore, omnivore, carnivore, mammal, adventurer, Antarctic, Arctic, clothes, cold, explorer, freeze, frozen, herbivore, ice, icebergs, North Pole, South Pole, penguin, polar bear, whale, arctic fox, sea lion, seal, snow, fur, waterproof, warm, weather.  Seasons- Autumn to Winter comparison | | Head, body, eyes, ears, mouth, teeth, legs, tail,  Names of animals experienced first-hand from visit, vertebrates, invertebrates,  Structure of animal body parts,  Amphibians, birds, fish, mammals, reptiles, carnivores, herbivore, omnivore, camouflage.  Seasons- Spring | Plants, root, seed, bulb, flower, stem, leaves, wild, plants, garden plants, sunflower, grow, sunlight, water, garden and wild.  Leaves, trunk, branches, bark, deciduous and evergreen trees.  Seasons- Spring to Winter comparison | Seaside animals, fish, fin, scales, gills, rock pool, crab, habitat, limpet, mussel, periwinkle, sea snail, pollution, recycle, rubbish, beach, sand, sea, shell.  Summer, sunglasses, cooling, frozen, protect.  Seasons- Summer  All four seasons comparison |
| Year 2 | **AUTUMN 1**  YOUNG GARDENERS  (PLANTS) | **AUTUMN 2**  HEALTHY ME | **SPRING 1**  SURVIVAL ADVENTURE | | **SPRING 2**  USES OF MATERIALS | **SUMMER 1**  HAPPY HABITATS | **SUMMER 2**  FOOD CHAINS |
| HOOK | What is growing in our school grounds- identification and comparing of plants and trees  Lifecycle of a dandelion  What do seeds need for germination – investigation of what seeds/beans need to  grow healthy – changing variables  Explanation of the lifecycle of  a seed using key vocabulary  Weekly measurement of seedlings  Observations and evaluations  of growing investigation  Germination race- bulbs and seeds  Greenhouses/Allotments  Bulb planting (In Forest  School) | What do we need to do to stay healthy lesson?    Bread hygiene experiment- germs and washing hands  Fitness in the playground – Why is exercise good for me?  What exercise does to different body parts  Eggs in drinks experiment- fair test, predict, results, evaluate  Snacking – record data  of class favourite snacks.  Gathering information  and using it to answer questions  Children create their  own healthy snack bowl  using a selection of different fruits and vegetables. | Children find out about and describe the basic needs of animals, including humans, for survival (water, food and air)  Where are basic needs found?  Explore and compare the differences between things that are living, dead and things that have never lived.  Pupils will notice that animals, including humans, have offspring which grow into adults  Life cycle of a bird  Growth in humans  Wildlife survey- collecting and recording data | | Sorting by materials,  linked to recycling.  Material properties-  Vocabulary and  property definition.  Comparing  Suitability- silly uses of materials.  Investigate materials  by squashing, bending,  stretching and twisting.  Design a Tent for a  shelter that needs to  be waterproof  and strong.  Make, test and evaluate  investigation. | What is a habitat?  Learn about the rainforests.  Habitats comparisons-  Create a habitats information poster  Extreme habitats  Habitats of  the UK- names of local habitats e.g. pond, woodland etc.  Exploring micro-habitat e.g. under logs, in  bushes etc.  Observe outside for living things- Why do animals live there?  Match animals to the correct habitat.    Woodlouse live investigation plan and experiment | Animal food chains including humans  Children will identify different types of animal depending on their diet  Sort animals into categories by what they eat  Children to explore how animals eat, e.g beak  Learn what a food chain is  Children to explain what a food chain is giving examples of producer and consumer  Create their own food chain paper chains. Label the producers and the consumers.  Classification investigation: Whose poo? |
| Person/ Place | School grounds  George Washington Carver | Playground  Louis Pasteur | School grounds  Charles Darwin | | Classroom  Charles Macintosh | Bruntwood Park  Jane Goodall | Bruntwood Park  Scientists related to science week |
| Vocab | Seed, bulb, grow, flower, plant, fruit, vegetable, germinate,  tree, sow, seedling, harvest, healthy, conditions, observe, describe, identify, investigate, life cycle. | Health, healthy diet, habits, basic needs, hygiene, germs, grow, growth, exercise, muscle, nutrition, survive, heart, fitness, measure, question, observe, predict, fair test, evaluate. | Alive, living, not alive, dead, never lived, offspring, life cycle, young, child, baby, adult, basic needs, survive, survival, reproduce, healthy, breathe, human, animal, Compare, explain, observe and classify, explore, identify, describe, similarities, differences. | | Names of materials –  wood, metal, plastic, glass, brick, rock, paper,  cardboard.  Properties of materials –  as for Year 1 plus opaque, transparent, translucent, reflective, non-reflective, flexible, rigid, waterproof, not waterproof.  Shape, push/pushing,  pull/push, twist/twisting,  squash/squashing, bend/  bending, stretch/stretching. | Habitat, micro habitat ocean, forest, desert  Rainforest, woodland. sun, grass, leaf, litter, stony path, under bushes, shelter, sea shore, basic needs, breathe, rainforest, conditions,  Hot/warm/cold  Dry/damp/wet  Bright/shade/dark,  local environment, aim, plan, method, results. | Food, food chain,  plant, animal, prey, predator, carnivore, herbivore, omnivore, diets, producer, consumer, habitat, basic needs, living things, local environment, classify. |