

Bowes Learning Quest

Long Term Subject Maps

Science	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Nursery	The Human Body 1.Name features of the body 2. Introduce the 5 senses and what they do. 3.Observe and comment on what they see. 4. Sing Head, shoulders, knees and toes 5. Identify features of our faces. Seasons and weather Ongoing over the year	Seasons and weather Ongoing over the year 1.Comparing conkers and their shells 2.Clothing for winter	Animals and their needs 1.Investigate and name ocean creatures 2.Small world (David Attenborough-Micro monsters) 3.Blue planet (David Attenborough) Seasons and weather Ongoing over the year	Growing 1.What can we grow? 2.What do plants need to grow? 3.Observe plants growing over time and talk about what they can see happening 4.Explore seeds 5.Looking after living things in our environment 6. Explore life cycles by observing caterpillars – butterflies 7.Use a sunlight sensor Seasons and weather Ongoing over the year 1.Spring flowers	Materials 1.Making a boat 2. Making a flag 3. Talking about different materials 4. Investigate materials that float or sink Seasons and weather Ongoing over the year	Materials 1.Designing and making a bridge 2. Naming different materials 3. Testing properties of materials 4. Building a bridge based on scientific findings 5.Nature hunt for materials 6.Exploration of materials (sand and water trays) Animals and their needs 1.Revisit ocean creatures 2.Compare three animals from from a woodland, ocean and desert habitat. 3. Watch Deserts (Planet Earth Part 1) Seasons and weather Ongoing over the year
Reception	The Human Body 1.Name features/parts of the human body 2. Draw and label the body 3.Introduce the five senses and what they do Seasons and weather Ongoing over the year	Seasons and weather Ongoing over the year	Growing 1.What do plants need to grow 2.Seeds and bulbs 3.Observing growing over time 4.Plants around us (revisit in Summer 2 during Forest School) Healthy Eating: 1.Exploring different healthy and unhealthy foods 2.Tasting a variety of fruits and vegetables (Summer 1 revisit healthy eating) 3.Discuss how to keep healthy 4.Exploring teeth and how to keep them healthy Seasons and weather Ongoing over the year	Seasons and weather Ongoing over the year	Animals and their needs: 1.Idenfyng different groups of animals and their habitats 2.Describing animals 3. Jungle animals 4.Animals in the amazon rain forest 5.Animals as pets 6.What do different animal eat? Seasons and weather Ongoing over the year	Materials and their properties 1.Identify suitable materials for building a house for the Three Little Pigs. 2.Discuss and explore different materials Seasons and weather Ongoing over the year

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Year 1	Plants <ol style="list-style-type: none"> 1. What plants need 2. Parts of plants 3. Seeds 4. Deciduous and evergreen plants 5. Plants we eat 6. Assessment 	Materials and magnets <ol style="list-style-type: none"> 1. Everyday materials 2. Properties of materials 3. Uses of materials 4. Magnets 5. Investigation 6. Assessment 	Animals and their needs <ol style="list-style-type: none"> 1. Amazing animals 2. Grouping animals: fish, amphibians, reptiles, birds and mammals 3. Grouping animals: carnivores, herbivores and omnivores 4. Animals as pets 5. Describing animals 6. Assessment 	Astronomy <ol style="list-style-type: none"> 1. Introduction to astronomy 2. Model the solar system 3. Orbit and rotation 4. The moon and its phases 5. Constellations 6. Assessment 	Seasons and weather <ol style="list-style-type: none"> 1. The four seasons 2. Tools to record the weather 3. Using a graph to show information about the weather 4. Clouds and what they tell us: cirrus, cumulus and stratus 5. Weather forecasting 6. Assessment 	The Human Body <ol style="list-style-type: none"> 1. Introduction to our body and our senses 2. Eyes and sight 3. Ears and hearing 4. Touch, taste and smell 5. Understanding sensory impairment 6. Assessment
Year 2	Materials and matter <ol style="list-style-type: none"> 1. Materials and their uses 2. George de Mestral and Velcro 3. Matter under the microscope 4. Changing solid objects 5. Liquids and their properties 6. Assessment 	Electricity <ol style="list-style-type: none"> 1. Introduction to electricity 2. Safety 3. Exploring circuits (A) 4. Exploring circuits (B) 5. Investigating conductive and non-conductive materials 6. Assessment 	The Human Body <ol style="list-style-type: none"> 1. Animals, including humans, survival and offspring 2. The skeletal system, the muscular system and exercise 3. The digestive system and healthy eating 4. The circulatory system 5. Germs, diseases and preventing illness 6. Assessment 	Plants <ol style="list-style-type: none"> 1. Plants around us 2. Seeds and bulbs 3. Comparative test 1 4. Comparative test 2 5. Food and farming 6. Assessment 	Living things and their environments <ol style="list-style-type: none"> 1. Dead or alive 2. What is a habitat? 3. Rainforest and desert habitats 4. Meadow habitats 5. Underground habitats 6. Assessment 	Taking care of the Earth <ol style="list-style-type: none"> 1. Taking care of the Earth 2. Earth's natural resources 3. Logging 4. Pollution 5. Recycling 6. Assessment
Year 3	Forces and magnets <ol style="list-style-type: none"> 1. Forces (gravity) 2. Friction 3. Magnets 4. Magnetic poles and fields 5. Investigating the strength of magnets 6. Assessment 	The Human Body <ol style="list-style-type: none"> 1. The muscular system 2. The skeletal system 3. The nervous system 4. Preparing to eat 5. The digestive system 6. Assessment 	Plants <ol style="list-style-type: none"> 1. Botany and flowering plants 2. Requirements for life and growth 3. Water transportation in plants 4. Pollination in flowering plants 5. Seed dispersal 6. Assessment 	Light <ol style="list-style-type: none"> 1. Light and dark 2. Transparent and opaque surfaces 3. Mirrors and reflection 4. Shadows 5. Finding patterns in changing shadows 6. Assessment 	Rocks <ol style="list-style-type: none"> 1. Sorting rocks 2. How rocks are formed 3. Permeability 4. Fossils 5. Soil 6. Assessment 	Cycles in nature <ol style="list-style-type: none"> 1. The four seasons 2. Seasonal cycles in plants 3. Life cycle of a plant 4. Animal migration 5. Life cycle of a frog 6. Assessment



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Year 4	The Human Body <ol style="list-style-type: none"> 1. Cells and nutrients 2. Teeth and senses 3. Digestion 4. A healthy diet 5. Vitamins and minerals 6. Assessment 	Sound <ol style="list-style-type: none"> 1. What is sound? 2. Speed of sound 3. Qualities of sound – pitch and volume 4. Human voice 5. Ears – how we hear 6. Assessment 	Ecology <ol style="list-style-type: none"> 1. Living things and habitats 2. Natural cycles 3. Web of living things 4. Human threats to the environment 5. Ecology in our local area 6. Assessment 	Classification of plants and animals <ol style="list-style-type: none"> 1. Introduction to classification 2. Classes of vertebrates: fish and amphibians 3. Classes of vertebrates: reptiles, birds and mammals 4. Classes of invertebrates: insects, arachnids and molluscs 5. Classification of plants 6. Assessment 	Electricity <ol style="list-style-type: none"> 1. Electrical safety 2. Parts of a circuit 3. Switches 4. Thomas Edison and Lewis Latimer 5. Investigating conductive and non-conductive materials 6. Assessment 	The Water Cycle <ol style="list-style-type: none"> 1. States of matter 2. Evaporation 3. Condensation 4. Precipitation 5. The Water Cycle 6. Assessment
Year 5	Meteorology <ol style="list-style-type: none"> 1. Meteorology and the atmosphere 2. The ozone layer 3. Air movement 4. Cold and warm fronts 5. Thunder and lightning 6. Assessment 	Forces <ol style="list-style-type: none"> 1. Forces including gravity 2. Air resistance, water resistance and friction 3. Guided investigation: paper drop 4. Guided investigation: paper drop 5. Pulleys, gears and levers 6. Assessment 	Materials <ol style="list-style-type: none"> 1. Properties of materials 2. Which material is best? 3. Solubility – which materials are most soluble/what solubility means 4. Separating mixtures – sieving, filtering, evaporating 5. Reversible changes – dissolving, mixing, change of state 6. Assessment 	Astronomy <ol style="list-style-type: none"> 1. The Big Bang and the expanding universe 2. Gravity 3. Our solar system 4. The Moon 5. Our galactic neighbourhood 6. Assessment 	Living Things <ol style="list-style-type: none"> 1. Life cycles of plants and animals in our local area 2. Reproduction in plants 3. Life cycles of mammals and amphibians 4. Life cycles of insects and birds 5. The work of David Attenborough and Jane Goodall 6. Assessment 	The Human Body <ol style="list-style-type: none"> 1. Human growth and stages 2. Adolescence and puberty 3. Slowing down 4. Growth in humans and animals 5. Preparation for assessment (research and scientific drawing) 6. Assessment
Year 6	Evolution <ol style="list-style-type: none"> 1. Fossils and evolution 2. Inheritance 3. Adaptation 4. Charles Darwin 5. Alfred Wallace 6. Assessment 	The Human Body <ol style="list-style-type: none"> 1. The heart: circulation of the blood 2. Blood vessels and transport 3. Components of human blood 4. Blood pressure and heart rate 5. Heart rate – an investigation 6. Assessment 	Light <ol style="list-style-type: none"> 1. How light travels 2. How we see 3. Shadows and their shapes 4. The colour of light 5. Making a periscope 6. Assessment 	Electricity <ol style="list-style-type: none"> 1. Simple series circuits 2. Parallel circuits 3. Switches 4. Planning an investigation 5. Investigation 6. Assessment 	Classification of living things <ol style="list-style-type: none"> 1. Classifying organisms 2. Cells: plant and animal cells 3. Taxonomy 4. Vertebrates 5. Invertebrates 6. Assessment 	Reproduction <ol style="list-style-type: none"> 1. Asexual reproduction 2. Sexual reproduction in non-flowering plants 3. Sexual reproduction in flowering plants 4. Reproduction in animals 5. Growth stages 6. Assessment