

**Welbourn C of E Primary School**

‘Believe, Excite, Succeed, Together’

Reception/Year 1 Science Long Term Plan

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| Cycle A | Autumn | | Spring | | Summer |
| Science POS | ***Scientific knowledge:*** *It is vitally important that children develop secure understanding of each key block of knowledge and concepts in order to progress to the next stage. This allows children to avoid misconceptions and access higher-order content.*  ***Working scientifically****: Developing skills checking on pupils’ ability to, amongst other things, carry out research, ask questions and carry out tests.*  ***Working scientifically methods:*** *These types of scientific enquiry should include: observing over time; pattern seeking; identifying, classifying and grouping; comparative and fair testing (controlled investigations); and researching using secondary sources. Pupils should seek answers to questions through collecting, analysing and presenting data.* | | ***Scientific knowledge:*** *It is vitally important that children develop secure understanding of each key block of knowledge and concepts in order to progress to the next stage. This allows children to avoid misconceptions and access higher-order content.*  ***Working scientifically****: Developing skills checking on pupils’ ability to, amongst other things, carry out research, ask questions and carry out tests.*  ***Working scientifically methods:*** *These types of scientific enquiry should include: observing over time; pattern seeking; identifying, classifying and grouping; comparative and fair testing (controlled investigations); and researching using secondary sources. Pupils should seek answers to questions through collecting, analysing and presenting data.* | | ***Scientific knowledge:*** *It is vitally important that children develop secure understanding of each key block of knowledge and concepts in order to progress to the next stage. This allows children to avoid misconceptions and access higher-order content.*  ***Working scientifically****: Developing skills checking on pupils’ ability to, amongst other things, carry out research, ask questions and carry out tests.*  ***Working scientifically methods:*** *These types of scientific enquiry should include: observing over time; pattern seeking; identifying, classifying and grouping; comparative and fair testing (controlled investigations); and researching using secondary sources. Pupils should seek answers to questions through collecting, analysing and presenting data.* |
| Key objectives | Biology | Physics | Chemistry | Physics/Biology | Biology |
| Topic | This is me  (EYFS objective) | Seasonal changes  (yr1/EYFS objective) | Materials  (yr 1) | The world  (EYFS objective) | Plants  (yr 1) |
| Science knowledge | (W) Developing an understanding of growth, and changes  over time.  To Identify, name and draw and label the basic parts of the human body  To know the different stages of a humans growth | To know about similarities and differences in relation to places, objects, materials and living things.  To talk about the features of their own immediate environment and how environments might vary from one to another.  To make observations of animals and plants and explain why some things occur, and talk about changes.  To know the seasons and know about the type of weather in each season. | To know and distinguish between an object and the material from which it is made.  To know and identify a variety of everyday materials, including wood, plastic, glass, metal, water, and rock.  To know and describe the simple physical properties of a variety of everyday materials.  To compare and group together a variety of everyday materials on the basis of their simple physical properties | To talk about the features of their own immediate environment and how environments might vary from one to another.  To make observations of animals and plants and explain why some things occur, and talk about changes  To notice similarities and differences between their own environment and an alternative area.  To know and Identify a variety of common animals including fish, amphibians, reptiles, birds and mammals  To Identify carnivores, herbivores, omnivores  To describe and compare the structure of a variety of common animals including pets | To know, identify and name a variety of common wild and garden plants.  To know and name some deciduous and evergreen trees.  To know and name the petals, stem, leaves and root of a plant.  To know and name the roots, trunk, branches and leaves of a tree. |
| Working scientifically skills | To ask simple questions and recognise that they can be answered in different ways  To observe closely, using simple equipment  To perform simple tests  To identify and classify  To use observations and ideas to suggest answers to questions | To ask simple questions and recognise that they can be answered in different ways  To observe closely, using simple equipment  To perform simple tests  To identify and classify  To use observations and ideas to suggest answers to questions | To ask simple questions and recognise that they can be answered in different ways  To observe closely, using simple equipment  To perform simple tests  To identify and classify  To use observations and ideas to suggest answers to questions | To ask simple questions and recognise that they can be answered in different ways  To observe closely, using simple equipment  To perform simple tests  To identify and classify  To use observations and ideas to suggest answers to questions | To ask simple questions and recognise that they can be answered in different ways  To observe closely, using simple equipment  To perform simple tests  To identify and classify  To use observations and ideas to suggest answers to questions |
| Working scientifically methods | Observing changes over different periods of time,  Noticing patterns  Grouping and classifying things  Carrying out comparative and fair tests  Finding things out using a wide range of secondary sources. | Observing changes over different periods of time,  Noticing patterns  Grouping and classifying things  Carrying out comparative and fair tests  Finding things out using a wide range of secondary sources | Observing changes over different periods of time,  Noticing patterns  Grouping and classifying things  Carrying out comparative and fair tests  Finding things out using a wide range of secondary sources | Observing changes over different periods of time,  Noticing patterns  Grouping and classifying things  Carrying out comparative and fair tests  Finding things out using a wide range of secondary sources | Observing changes over different periods of time,  Noticing patterns  Grouping and classifying things  Carrying out comparative and fair tests  Finding things out using a wide range of secondary sources |
| Working scientifically ongoing | To begin to use simple scientific language to talk about what they have found out and communicate their ideas to a range of audiences in a variety of ways.  Be curious and ask questions. | | | | |
| Key vocabulary | Bones  Skeleton  Baby  Toddler  Child  Teenager  Adult  Freckles  Similarities  Differences  Unique  Body parts  Compare | Seasons  Summer  Winter  Autumn  Spring  Temperature  Hot  Cold  Rain gauge  Night  Day  Seasonal  Rainfall  Weather vane  Observe  Wind direction  Changes  Measure  Thermometer  Record  Month  Symbol  Signs  Leaves  Conkers  Pine cones  Seeds  Hibernate  Migrate | Materials  Wood  Plastic  Glass  Metal  Water  Rock  Hard  Soft  Stretchy  Stiff  Shiny  Dull  Rough  Smooth  Bendy  Waterproof  Absorbent  Brick  Paper  Elastic  Fabric  Compare  Watch  Sort  Group  Properties  Predict  Test | Weather  Area  Similarities  Differences  Compare  Animals  Habitat  Fish  Reptiles  Amphibians  Mammals  Reptiles  Birds  Omnivore  Carnivore  Herbivore  Environment  Changes  Features  Adapt | Flower  Petal  Leaves  Leaf  Stem  Seed  Root  Soil  Sunlight  Grow  Growth  Water  Bark  Trunk  Fruit  Branch  Deciduous  Wild  Evergreen |
| **Ongoing**  At least 1 lesson every half term to look at similarities and differences in plants, trees, day length, weather etc.  **WS Methods ongoing** | **Seasonal change**  Observe changes across the four seasons  Observe and describe weather associated with the seasons and how day length varies.  Note : identify and name a variety of common wild and garden plants, including deciduous and evergreen trees – look at this element every term alongside the seasonal change aspects | | | | |
| Observing changes over a period of time  Noticing patterns  Grouping and classifying things  Finding things out using secondary sources | | | | |