

**Welbourn C of E Primary School**

‘Believe, Excite, Succeed, Together’

Reception/Year 1 Science Long Term Plan

|  |  |  |  |
| --- | --- | --- | --- |
| 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 changesover time.To Identify, name and draw and label the basic parts of the human bodyTo 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 changesTo 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 mammalsTo Identify carnivores, herbivores, omnivoresTo 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 waysTo observe closely, using simple equipmentTo perform simple testsTo identify and classifyTo use observations and ideas to suggest answers to questions | To ask simple questions and recognise that they can be answered in different waysTo observe closely, using simple equipmentTo perform simple testsTo identify and classifyTo use observations and ideas to suggest answers to questions | To ask simple questions and recognise that they can be answered in different waysTo observe closely, using simple equipmentTo perform simple testsTo identify and classifyTo use observations and ideas to suggest answers to questions | To ask simple questions and recognise that they can be answered in different waysTo observe closely, using simple equipmentTo perform simple testsTo identify and classifyTo use observations and ideas to suggest answers to questions | To ask simple questions and recognise that they can be answered in different waysTo observe closely, using simple equipmentTo perform simple testsTo identify and classifyTo use observations and ideas to suggest answers to questions |
| Working scientifically methods | Observing changes over different periods of time,Noticing patternsGrouping and classifying thingsCarrying out comparative and fair testsFinding things out using a wide range of secondary sources. | Observing changes over different periods of time,Noticing patternsGrouping and classifying thingsCarrying out comparative and fair testsFinding things out using a wide range of secondary sources | Observing changes over different periods of time,Noticing patternsGrouping and classifying thingsCarrying out comparative and fair testsFinding things out using a wide range of secondary sources | Observing changes over different periods of time,Noticing patternsGrouping and classifying thingsCarrying out comparative and fair testsFinding things out using a wide range of secondary sources | Observing changes over different periods of time,Noticing patternsGrouping and classifying thingsCarrying out comparative and fair testsFinding 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  | BonesSkeletonBaby ToddlerChildTeenagerAdultFrecklesSimilarities DifferencesUniqueBody partsCompare | SeasonsSummerWinterAutumnSpringTemperatureHotColdRain gaugeNightDaySeasonalRainfallWeather vaneObserveWind directionChangesMeasureThermometerRecordMonthSymbolSignsLeavesConkersPine conesSeedsHibernateMigrate | MaterialsWoodPlasticGlassMetalWaterRockHardSoftStretchyStiffShinyDullRoughSmoothBendyWaterproofAbsorbentBrickPaper ElasticFabricCompareWatchSort GroupPropertiesPredictTest | WeatherAreaSimilaritiesDifferencesCompareAnimalsHabitatFishReptilesAmphibiansMammalsReptilesBirdsOmnivoreCarnivoreHerbivoreEnvironmentChangesFeaturesAdapt | FlowerPetalLeavesLeafStemSeedRootSoilSunlightGrowGrowthWaterBark TrunkFruitBranchDeciduous 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 timeNoticing patternsGrouping and classifying things Finding things out using secondary sources |