Year 1: Plants Our Learning Leaves Curriculum – Science

	Required prior knowledge	Knowledge to be explicitly taught	How knowledge will be built upon
Substantive knowledge	There are differences in the wildlife we see and the weather in spring and winter (YR) Some plants have flowers (YR)	• A **plant** is a living thing that usually grows in one place • **Coniferous** plants keep their leaves all year round (e.g. pine, yew, juniper in UK) • **Deciduous** plants lose their leaves in winter (e.g. oak, silver birch, horse chestnut, sycamore, ash) • Trees are a type of plant that have a tall stem made of wood • The basic parts of a plant are **leaves, flowers, roots, stem/trunk/branch**	Plant growth from germination (Y2) Requirements for plant life (Y2, Y3) Purpose of leaves, stem/trunk, roots and flowers (Y3) Coniferous trees transport their seeds in cones; deciduous trees use seeds and flowers/fruit (Yr3) Classifying plants (Y4)
Disciplinary knowledge	Measure/observe using senses (YR) Use hoops to classify objects based on simple criteria (YR)	**Draw and label a scientific diagram of a plant** • Draw a diagram, a simple scientific drawing that explains or informs **Classify trees as deciduous or coniferous using images of them at different times in the year** • Use a table to classify items based on properties	Investigate the conditions required for germination Make a prediction based on substantive knowledge It is important that we keep as much as we can the same, apart from the thing we measure and the one thing we change Investigate how light affects the growth of plants Make systematic observations of an object (Y 2)

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Key Drivers

Culture and Diversity - which helps pupils to develop enquiring minds about the wider world –

- Different varieties of plants and trees that grown in different countries
- Scientists' values and beliefs are influenced by the larger culture in which they live. Such personal views can, in turn, influence the questions they choose to pursue and how they investigate those questions.
- Scientific activities are social activities, so scientific culture is the product of humans' or particular groups of humans' activities. The thinking patterns, values, behavioural norms and traditions of science formed in its history reflect its cultural connotation.
- PSTT – 'A Scientist Just Like Me' - https://pstt.org.uk/resources/curriculum-materials/ASJLM Case studies of different scientists from diverse and under-represented backgrounds.

Environment and Community - which helps to instil in our pupils a respect for our environment and for our local and wider communities

- British Science Week
- Outside speakers
- Eco School
- School community reminders
- RESPECT characters reminders
- Children to appreciate our communities values, similarities and our unique qualities that make us special.
- Forest School

Creative arts and physical development - which helps our pupils to express themselves and excel as holistic learners.

- Sunflower competition
- Forest School
- Scientists have to use their imagination to come up with explanations, theories and predictions.
- Scientists have to use their prior and new knowledge to create links

Learning to learn - which helps pupils to concentrate and focus and build resilience as learners –

- Investigating (**comparative test)** different conditions to grow plants
- Patttern seeking, Identifying and classifying, Using secondary resources
- Respect characters model learning behaviours to develop resilience and perserverance.
- Respect characters model excellence in attitudes to learning.