Progression in Scientific Knowledge (2016 Edition)

Year 3

Topic	Expectations	Key words
Plants: **Investigating Plants**	• identify parts of flowering plants • **identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers** • describe why healthy roots and a healthy stem are needed for plants to grow • recognise that the leaves of a plant are associated with healthy growth and more specifically nutrition • recognise that plants need light, water and warmth and healthy leaves, roots and stems in order to grow well • know that water travels from the roots up the stem • **explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant** • know that plants make their own food • know that fertilisers contain minerals • understand that plants absorb minerals from the soil (Teacher Note: plants create their own food using sunlight, water and carbon dioxide, they do not absorb food from the soil) • describe how changes to light and fertiliser affect plant growth • *explain that differences in plant growth are due to the amount of light and/or water* • **investigate the way in which water is transported within plants** • describe how the stem has a role in support and nutrition (transport of water) • *explain why healthy roots and a healthy stem are needed for plants to grow* • **explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal** • describe why plants need flowers • sequence pictures to show the life cycle of a plant • describe how pollen and seeds are dispersed • explain the role of bees and insects in pollination • *describe the processes of pollination, seed formation and seed dispersal* • *compare the roots of different plants (e.g. desert plants or rainforest trees (Teacher Note: rainforest trees have very shallow roots as the quality of the soil is poor and most of the nutrients are near the surface)*	Ground, transport, attract bees, catch sunshine, green, air, nutrients, growth, pollen, pollination, seed formation, seed dispersal, nutrition, support, anchor, reproduction