

Science Year 3 & 4- information for teachers

2014 National Curriculum link:

Year 3 & 4 (plants):

- ‘Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers’.
- ‘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’.
- ‘Investigate the way in which water is transported within plants’.

Year 3 & 4 (Rocks):

- ‘Recognise that soils are made from rocks and organic matter.’

Objectives covered (linking to the Chris Quigley ‘Essentials’)

To work scientifically:

- ‘Set up simple practical enquiries and comparative and fair tests’.
- ‘Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions’.

To understand plants:

- ‘Identify and describe the functions of different parts of flowering plants: roots, stem, leaves and flowers’.
- ‘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’.
- ‘Investigate the way in which water is transported within plants’.
- ‘Describe the life process of reproduction in some plants and animals’.

Activities

1) Mother Shipton’s Cave Tree Trail:

* Children use the booklet as they go through the park and spot the different types of trees from their trunks. As they spot the trees, they also make bark rubbings to distinguish further differences between their trunks.

2) Powerpoint presentation:

The presentation should be used as a follow-on activity back in the classroom as children:

- ✓ Revisit trees spotted

- ✓ Look at what different parts of a plant do
- ✓ Label the parts of a flower and tree
- ✓ Label the parts of real flowers and images of trees
- ✓ Look at what plants need to grow and how they would be affected if they did not have these things
- ✓ Look at how the requirements of life for plants vary
- ✓ Play BBC Bitesize game helping the plants to grow
- ✓ Watch ‘What is soil?’ BBC Learning Zone clip
- ✓ Investigate different soils to distinguish which soil is most porous and therefore best to use for planting
- ✓ Share ideas and complete investigation sheet

Resources needed:

- *Pencils*
- *Rubbers*
- *Paper (preferably thin for bark rubbings)*
- *String*
- *Real or display flowers*
- *Images of trees*
- *Plant labels (provided)*
- *2 types of soil*
- *Soil investigation sheet (provided)*
- *Filter paper*
- *Funnels*