

# Pre and Post Lesson Activity Ideas

TOPICS

SOILS

KEY STAGE

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## Pre Lesson Activity Ideas

### Introduction

Tell the children they will be learning about soil at Rosemoor.  
Ask them what they think soil is.

### Activity

1. Collect soil samples from different areas of the school grounds – for example from garden bed, trampled area of grounds, soil under grass, etc. Compare colour, texture, evidence of decomposers
2. Look at compost heap if school has one – compare decomposers with those in soil samples
3. Discuss food chains – draw and label a simple one.
4. Dry soil samples for several days for Rosemoor visit.

Note: If the school has no garden, children might like to bring soil samples from home instead.

## Post Lesson Activity Ideas

A very extensive and detailed web site on soil with lots of activities and resources for Primary and Secondary School students and teachers that is FREE - [www.soil-net.com](http://www.soil-net.com)

### Introduction

Ask the children to recall the visit to Rosemoor.  
What did they learn about soil and compost ?  
Name some differences between soils ?

### Activity 1

Each child to bring a sample of soil from home. Perhaps also use samples from further afield as a contrast.  
Using a pH testing kit from a garden centre, test and record results.

### Activity 2 - Classroom Compost Tower

Using empty plastic drinks bottles, make a compost tower with instructions from [www.saps.plantsci.cam.ac.uk](http://www.saps.plantsci.cam.ac.uk)  
Make several compost towers, each filled with something different – leaves, fruit and veg, shredded newspaper, shredded cardboard, non-degradable plastic, biodegradable plastic bags, cut grass – sprinkle each with water and make weekly observations.

### Activity 3 - Soil Animals

Tulgren funnel - a device used to extract small invertebrate animals from a dry soil sample. A soil sample is placed in a funnel with a base made from gauze with a mesh designed to hold soil particles but permit the animals to pass. The container is arranged under the funnel, with a light above. The heat causes the animals to move away from the top of the sample, through the gauze sheet and into the container from which they can be collected. Most species are collected after two hours, but complete extraction takes two-three days.

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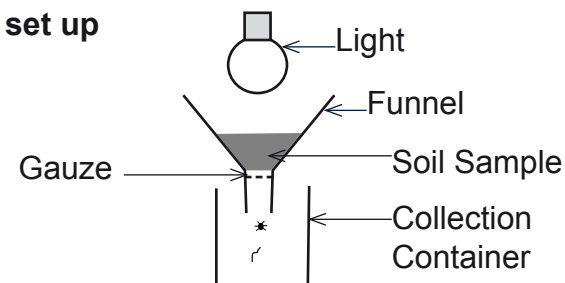
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## Pre Lesson Activity Ideas

## Post Lesson Activity Ideas

### Tulgren Funnel set up



### Activity 4 - Water flow

Fill glass jars or cylinders with different soils (sand, loose school soil, rammed school soil, clay, mixtures of soil with more or less sand). Test how water flows through each type of soil. Explain difficulties for plant roots in getting water in poor draining soil.

### Activity 5

Make or explore school compost heap /bin.

### Extension - Soil detective

Can set up a mystery case with a theft or murder. The only evidence left behind being a muddy footprint. They can have some suspects located in different places. The aim being for the children to divide up collect samples of soil from the different suspect locations and carry out some tests – texture, moisture, pH, colour, etc so they can match this up with the evidence and so find the guilty person.

### Website:

[www.soilscapes-mapper](http://www.soilscapes-mapper) – interactive soil map of the UK