

**INFORMATION SHEET**

# A glossary of soil terms

Use this guide to help you understand the gardening terms around soil and soil cultivation.

**School term:** All year round

**Level of experience:** No experience needed

**Subject(s):** Science, Geography

## Soil Terms

**Clay Soil** has a particle size less than 0.002mm, these particles stick together and attract water to form large sticky lumps which are heavy to work with.

**Sandy Soil** particle size ranges between 0.05 and 2mm, these do not stick together meaning that sandy soils are free draining. Because of this sandy soils need additional organic matter to ensure nutrients and soil structure is maintained.

**Loamy Soil** is a mixture of sandy and clay soils and has the benefits of both making it easy to cultivate.

**Improving the soil with compost** is when compost is spread over the surface of soil which has been cultivated to a rough tilth. It is forked into the soil a few weeks before planting to improve soil texture and fertility before creating a fine tilth.

**Tilth** is a word that describes the prepared soil surface. A **rough tilth** is created by digging and a **fine tilth** is created by raking and levelling the soil ready to sow seeds.

**Mulch** is a layer of material that is spread over the surface of the soil to suppress weeds, conserve moisture and warm the soil. Materials include compost, leaf mould, straw or bark chippings.

## Autumn digging techniques

**Single digging** is suitable for cleaning the soil surface of any debris and weeds as well as aerating the soil. It will also expose pests such as slugs and snails and their eggs. By leaving heavy clay soil as lumps over winter, the soil is 'weathered' (broken down further) ready for spring planting.

## Method for single digging

Turning the soil over to a spade or fork's depth is called single digging, this is the most commonly used method of digging.

1. Mark out a rectangular plot and mentally divide it into two strips. Dig a small trench 30cm wide and a spade's depth deep from one end of the strip until empty. Place this soil in a wheelbarrow or put to one side.
2. Next make a new trench the same size immediately behind it, dropping this soil into the trench you made previously. You may need to break the soil up a little.
3. Working backwards (so you never step on freshly dug soil) continue down the first strip and back up the second one, turning the soil from each trench into the one before it.
4. At the end fill the final trench with the soil that you had put aside or in a wheelbarrow at the beginning.

**Double digging** is a useful way of cultivating soil in new beds, borders and gardens, relieving soil compaction or when deep topsoil is required for growing. It is not necessary to double dig every year, but on poor or heavy soils and in vegetable gardens it may be needed every three to five years. Flower or mixed borders only need double digging at their creation and on total replanting.

## Method for double digging



## Green Manures

These are crops that are sown at certain times of the year and dug in at a later date. These include, Field Beans, Fenugreek, Clover and Phacelia.

They provide benefits to the soil by;

- Reducing weeds
- Stopping soil erosion or capping in the winter
- Improving the fertility of the soil (in the case of legumes - peas and beans)

1. Use a line to mark out the area you are going to dig, you can divide the plot in two (see single digging above) and dig a trench one fork deep, putting the spare soil to one side or in a wheelbarrow.
2. Fork over the bottom of the trench. This is where the term double digging comes from. Add in organic matter such as garden compost into the base and lightly fork in.
3. Dig the next trench immediately behind this, working backwards to ensure the newly dug soil is not compacted.
4. Repeat the process, working through one side and then finishing with the other. Ensure the soil is level across both sides of the plot.
5. When the final trench is dug, fork over the base, add compost and fill in using the soil from the wheelbarrow.