



Silt	Clay		Water		Sand
Air		Silt		Organic Matter	
Clay		Water		Sand	Silt
	Water				Clay
Water		Sand		Clay	
	Silt	Clay	Organic Matter		Air

**Play Soildoku: Fill in the missing parts of soil into the empty boxes. There must be a complete set of the six parts of soil in each row and column.**

**Air**

**Water**

**Sand**

**Silt**

**Clay**

**Organic Matter**





This activity helps students to understand the components that make up soil and their importance.

**Sand particles:** form lightweight, free-draining soils; cannot hold onto nutrients

**Clay particles:** hold water well; can become heavy and waterlogged when wet; can hold onto nutrients.

**Silt particles:** hold water; can be hard to drain; can hold only limited nutrients.

All soil contains sand, silt and clay particles, but in differing proportions. Sand particles are the biggest, then silt and finally clay.

**Water:** clings to soil particles; is taken up by plant roots.

**Air:** fills gaps in soil; allows the plant roots and animals to 'breathe'.

Just under half, about 35 to 40%, of a good soil is made up of water and air! So 'Which one is there most of' - could be air!

**Organic matter:** includes manure, leaf mould and compost; releases nutrients slowly as it rots; improves water holding. You can say it helps stick the soil together!

**Animals:** note, we can also include soil animals, such as insects, bacteria and earthworms; all helping to break down dead materials.

Soil is all around us; in the school playground, at the park and in our gardens. We need to look after our soil.

Suggested key words for class discussion:

Sand, Nutrients, Water holding, Silt, Drainage, Organic matter, Clay, Particles, Air, Animals, Rot, Dead material





Silt	Clay	Organic Matter	Water	Air	Sand
Air	Sand	Silt	Clay	Organic Matter	Water
Clay	Organic Matter	Water	Air	Sand	Silt
Organic Matter	Water	Air	Sand	Silt	Clay
Water	Air	Sand	Silt	Clay	Organic Matter
Sand	Silt	Clay	Organic Matter	Water	Air

Play Soildoku: Fill in the missing parts of soil into the empty boxes. There must be a complete set of the six parts of soil in each row and column.

Air    Water    Sand    Silt    Clay    Organic Matter

