



# WHAT IS SOIL

## LEARNING OBJECTIVES

1. OBSERVATIONAL SKILLS
2. UNDERSTAND COMPONENTS OF SOIL

## YOU WILL NEED

- SOME SOIL - FROM YOUR GARDEN OR SCHOOL, ADVISED TO WEAR GLOVES WHEN HANDLING SOIL
- AN EMPTY AND TRANSPARENT BOTTLE OR JAR
- WATER

ROCK IS WEATHERED BY PHYSICAL AND CHEMICAL PROCESSES AND THE BROKEN PIECES FORM THE INORGANIC COMPONENT OF SOILS.

THE SMALL PARTICLES OF ROCK, LARGER PIECES SUCH AS SAND GRAINS AND HEAVIER PIECES CALLED STONES, ALL FIND THEIR WAY INTO SOIL.

SOIL ALSO CONTAINS ORGANIC MATTER. THIS IS MAINLY LEAF LITTER, (DECAYED OR ROTTED PLANT MATTER) AND HUMUS, (DECOMPOSED LEAF LITTER AND ANIMAL REMAINS).

SOILS ALSO CONTAIN AIR, MICROBES, FUNGI, SMALL ANIMALS AND WATER.

WHEN WATER IS ADDED TO SOIL, THE TINY PARTICLES OF ROCK IN SOIL, FORM MUD.

**DURATION**  
1 HOUR +  
**DIFFICULTY**  
EASY

ONCE YOU HAVE COLLECTED YOUR SOIL, PLACE IT INTO YOUR BOTTLE OR JAR, ADD WATER, AND SCREW THE LID BACK ON.

SHAKE THE BOTTLE WELL UNTIL YOU HAVE A MUDDY MIXTURE, AND LEAVE IT TO STAND.

OBSERVE THE SOIL, WHAT HAS HAPPENED?

LEAVE THE MIXTURE TO SETTLE FOR AS LONG AS POSSIBLE (BEST LEFT OVERNIGHT).

CAN YOU DISTINGUISH THE DIFFERENT COMPONENTS OF THE SOIL? AND EXPLAIN WHY YOU THINK THEY HAVE SEPARATED?

WHAT COMPONENTS MIGHT NOT BE VISIBLE?

[kentdowns.org.uk/geopark](http://kentdowns.org.uk/geopark)