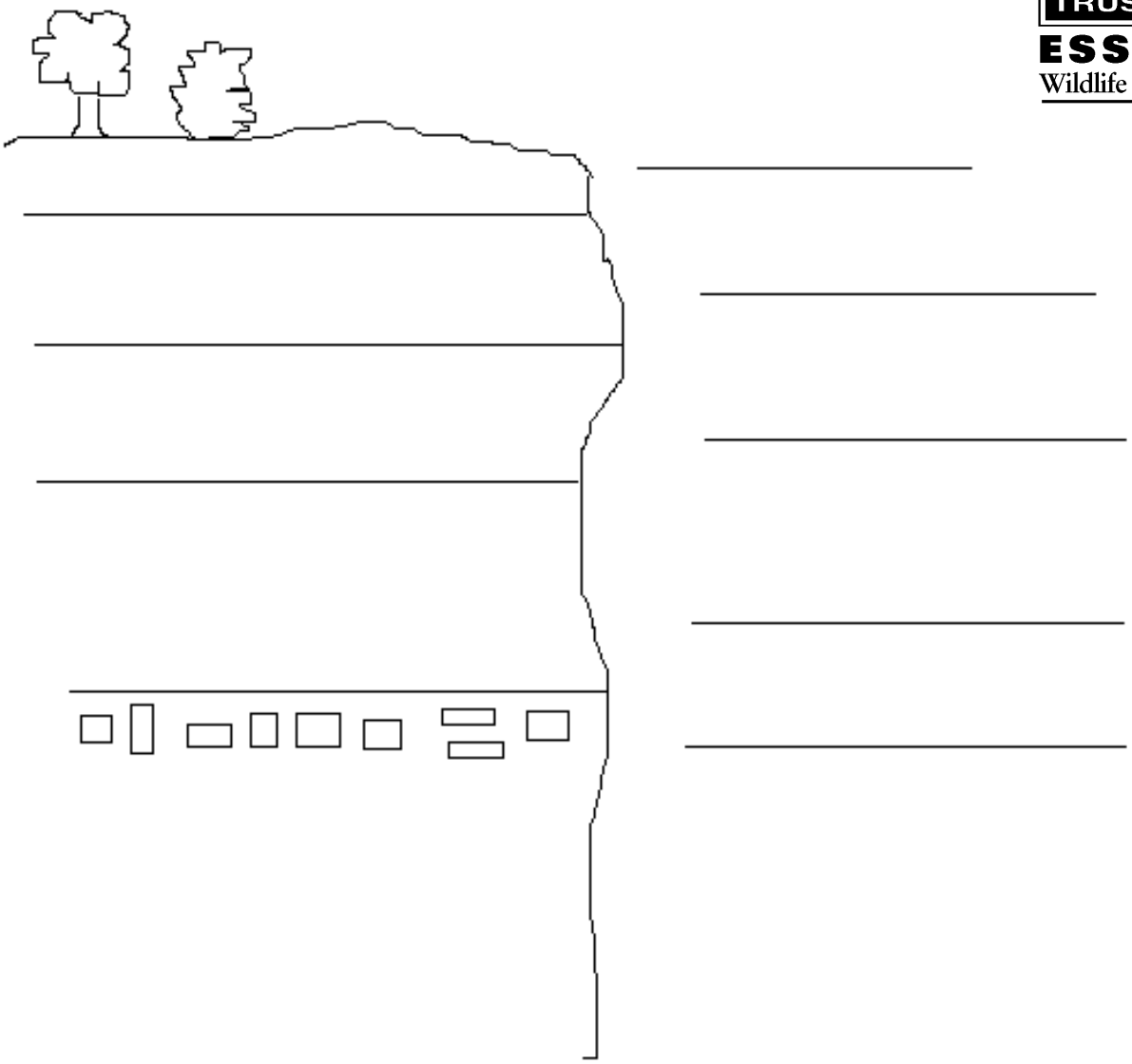
Rocks and Soils Work book



Today you will be studying rocks and soils.

You will see the different layers of rocks in the cliffs of Chafford Gorge Chalk Quarry.

These rocks are called **Sedimentary** and were formed when the land was covered by sea, and tiny pieces of natural material would fall and sink to the bottom.

We will be using this worksheet to explore the different qualities of the rocks.

Soil

The top layer of soil is formed by rocks and natural material breaking down and eroding by weathering. Air, water and billions of micro-organisms and minibeasts help make the soil, as well as decaying dead leaves and old animal carcasses.

Draw a picture of the soil below.

Fill in the blanks using the words below:

Absorbed, rock, dead leaves and animals, soft and grainy, brown, falls between my fingers

The colour of this soil is _____.

The texture of this soil is _____.

If I rub the soil between my fingers it _____.

This soil is made from eroded _____.

When I put a few drops of water on this soil, the water is _____.

Can you think of a use for soil?

_____

Thames River Gravel

Thousands of years ago the Thames River flowed through Essex. The river brought with it a variety of pebble and gravel.

These gravels have been used in building and making paths.

Draw a picture of the Thames River Gravel below.

runs between the stones, feels sharp and hard,

multicoloured (grey, brown, yellow) gravely,

The colour of the rocks is_____.

The texture of the rocks is_____.

If I rub the rock it_____.

When I put a few drops of water on the rocks, the water _____

_____.

Can you think of a use for gravel?

_____.

Thanet Sand

This sand would have been formed when the sea was shallow.

It is made from a mineral called Silica, which came from the skeletons of sea sponges.

Draw a picture of the Thanet Sand below.

Silica, soft and grainy, is absorbed between the grains, feels grainy and falls between my fingers, yellowy brown,

The colour of the rock is_____.

The texture of this rock is_____.

If I rub the rock, it_____.

This rock is made from _____.

When I put a few drops of water on this rock it _____.

Can you think of a use for sand?

_____

Flint

Within the chalk of our cliffs there are nodules of flint.

Flint is hard and can shatter into sharp pieces which were once used by stone-age man to butcher animals.

Flint nodules were formed by the infilling of sea creatures burrows.

Draw a picture of the flint below.

hard and smooth, runs off,

leaves chalk on our hands, grey / white,

The colour of this rock is _____.

The texture of this rock is _____.

If I rub the rock it _____.

When I put a few drops of water on the rock it _____.

Can you think of a use for flint?

_____

Chalk

Millions of years ago there would have been a sea teeming with marine life, where we are stood today.

The smallest creatures were microscopic marine algae with protective shells called coccoliths. These coccoliths would drift to the sea floor in their billions and over time formed the chalk we see today.

Draw a picture of the chalk below.

Coccolith

coccoliths, absorbed, white,

crumbly and soft, leaves dust on our hands,

The colour of the rock is _____.

The texture of the rock is _____.

If I rub the rock it _____.

This rock is made from _____.

When I put a few drops of water on the rock it is _____.

Can you think of a use for chalk?

_____