

# Adventurers - Rocky the Findosaur

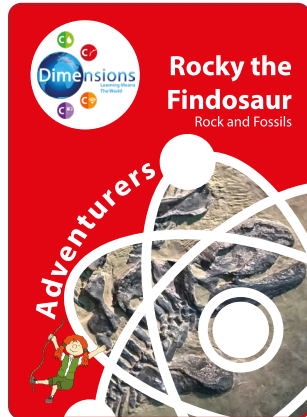
What

I

Should

Know

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## Overview

"Rocky the Findosaur" is a thematic unit based around rocks and fossils, with a key focus on science. We will learn about different types of rocks, with the help of original animated dinosaur character, Rocky. This theme also takes in solids, liquids and gases through focusing on Mount Vesuvius, which is where Rocky spends his time exploring.

## Rocks and Fossils

Rocks come in all different forms. Some are incredibly light whereas some are very dense and heavy. Rocks can be classified or sorted in many different ways. Geologists, who study rocks, use tests such as permeability (some rocks allow water to pass through while with some the water just rolls off) and erosion (testing to see how easy it is to break down a rock). Fossils are the remains of animals and plants that died thousands of years ago. Their physical forms become compressed (squeezed) within layers of soil, silt and sand and, as their bodies decompose, the bones can leave an impression in the materials surrounding it making a fossil.

## Solid, Liquid or Gas?

All things on our planet can be classified according to one of these three areas:- solid, liquid or gas. Solid materials are those that are firm and stable and have particles very close together. This means that the object can hold its own shape. Liquids have particles that are further apart and it has a fixed volume but its shape changes, depending on the container it is put in. Gases have no fixed shape and fill the space they are in. We often cannot see them.



## The Water Cycle

The water cycle incorporates water in its liquid and gas forms. The water cycle process is happening all the time, all around us. It involves water evaporating (gas), condensing (gas becomes liquid) and precipitating (rain - liquid) on our planet. Some weather conditions can make this process happen more quickly, such as, when it is very warm and dry.

## What's the difference between a geologist and a palaeontologist?

A geologist is a person who studies earth processes such as earthquakes, floods, landslide and volcanic eruptions. They study earth materials such as rocks, metals and minerals and they can also search for oil, gas and other natural resources. A palaeontologist studies fossils and explores early life on our planet.

# Adventurers - Rocky the Findosaur

## Vocabulary

|                        |  |
|------------------------|--|
| <b>Condensation</b>    | the process of changing from a gas to a liquid   |
| <b>Erosion</b>         | wearing away of the earth's surface by wind or water   |
| <b>Evaporation</b>     | the process of turning from a liquid to a gas  |
| <b>Fossil</b>          | the remains or traces of a living animal or plant from a long time ago, found embedded in earth or rock  |
| <b>Geology</b>         | the study of the physical structure of the earth and how it has changed over time  |
| <b>Organic matter</b>  | this comes from living or recently living things<br>Soil is full of organic matter such as leaves, insects and animals.  |
| <b>Palaeontology</b>   | the branch of science concerned with fossilised animals and plants   |
| <b>Permeable</b>       | something that allows water or gas to pass through it  |
| <b>Rock</b>            | a solid mass, made up of minerals<br>The Earth's surface is formed mostly from rock as it makes mountains and cliffs.  |
| <b>Sand</b>            | tiny, loose grains of ground up rock, found on beaches and in deserts  |
| <b>Silt</b>            | fine pieces of earth, clay or sand that eventually settle out of water   |
| <b>Soil</b>            | the top layer of the Earth<br>It contains lots of different elements such as organic matter, sand, clay etc. It is what plants grow in as they get a lot of their nutrients from the soil. |
| <b>State of matter</b> | Matter is the word used to describe what everything is made from. Everything on our planet is either a solid, liquid or a gas and some things can change states by heating or cooling.     |

## Concept Flow

- To compare and group together different kinds of rocks on the basis of their appearance and simple physical properties
- To know and describe in simple terms how fossils are formed when things that have lived are trapped within rock
- To recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago
- To know that soils are made from rocks and organic matter
- To compare and group materials together, according to whether they are solids, liquids or gases
- To know and observe how some materials change state when heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C)
- To identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature

## My Notes / Questions