

European Path (e)Motion – Senior High School of Thesprotiko

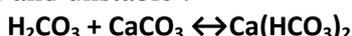
Work Sheet 2: Louros Karst

Name : Date:

A. Useful Knowledge

Karst : We call **Karst** the topography in which carbonate rocks (mainly limestones and marble) prevail that have been shaped by karst erosion. We call **karst erosion** the erosion that consists of water enriched with CO₂ which comes from the atmosphere and the soil. The chemical weathering – dissolution transforms the limestones into soluble bicarbonates salts. The reaction of dissolution of CO₂ in water is : CO₂ + H₂O → H₂CO₃.

The monosodium carbonates that is inserted in the carbonate mass transforms the carbonate calcium into bicarbonate calcium dissolved into water and unstable :



The topography of a karst area presents some clear morphological features that distinguish it from the superficial morphology of the other types of rock. Such forms are divided into superficial : **glyph, wells, dolines, uvaes, flatlands** and underground : **sinkholes, caves**.

Glyph : There are gooves of a varied depth in the surface of limestone that was created from the soluble action of water. Their depth varies from some milimetres to some dozens of centimetres. They are distinguished according to size, shape and the way of creation.

Wells : They are small or big wells . Their band width varies and sometimes overtakes the 100 metres. Their dept may reach the deepest parts of the limestone mass.

Dolines : They are closed basins round or elliptical, the bandwidth of which is bigger than the width in contrast with the wells. The width dimensions vary from 20 till dozens of hundred metres and for the depth from 2 to 100 metres.

Uvaes : They are big draughts or closed basins without regular outline, which come from the connection of neighbour dolines of biadvanced dissolution. The extent varies from some dozens of m² to some Km².

Flatlands : They are well distinguished closed basins in an elliptical shape. They are surrounded by mountains and lie in various altitudes.

Sinkholes : They are karst pipes that climb until the surface of the ground vertically or with big inclination. The incoming water, disappears in the deepest areas in unknown directions.

Caves : They are underground incuses of big dimensions, which communicate superficially with small outlets accessible to humans. In these caves distinguished figures from the deposition of CaCO₃ are shaped. The most important are stalactites (hanging from the top of the cave) and stalagmites (raising from the ground).

B. Walking through the developed karstic system of Louros trace and note down the out karstic and inner karstic figures.

No	Karst	location	location	location	location	location
1	Glyph					
2	Wells					
3	Dolines					
4	Flatlands					
5	Sinkholes					
6	Caves					

table 1. Karst forms in Louros Karst

C. Helpful images of recognition of limestones and Karst forms in Louros Karst.



Limestones, Louros Springs.



Limestones at Ziros Lake.



Glyph grooves close to the village of St. George.



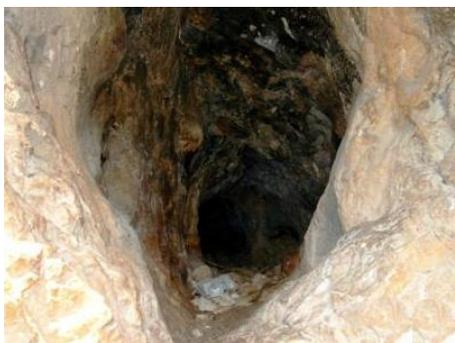
Finger signs in Kleisoura.



Sinkhole.



Asprochaliko rain roof .



Asprochaliko Cave.



Karst pipe at St. George.



Ziros lake doline.



Entrance of a Karst well in Terovo.



Karst plain in Kouklesi.