

Geology of the Czech Republic - G1

Task 1: Find the words in the text below that match the explanations (1 word for each explanation). Nouns are given in singular.

1. A new or reserve supply that can be drawn upon when needed =
2. The outer layer of the Earth =
3. Moved =
4. In some degree; not wholly =
5. Sink down =
6. Apparently formed from solidification of magma =

Although the Czech Republic only covers a small part of the Eurasian continent, it is very rich in geological resources, and evidence suggests that the country's land mass has been developing for nearly 2.5 billion years. Geological events moved many rocks deeper into the earth's crust which was then metamorphosed by high pressure and/or temperature. During geological processes which followed, some of these rocks were shifted upward, near the earth's surface, and were partially uncovered by surface geological activities. For these reasons, it is possible to find all well-known types of rocks which settle on the bottom of seas, lakes or rivers (sandstone, conglomerate, slate, limestone, coal, sand, gravel etc.), metamorphic rocks (phyllite, gneiss), deep igneous rock (light granite and dark gabbro), and volcanic rocks (black basalts, light phonolite and andesite).

Task 2: Use Howjsay and check the correct pronunciation of the geological vocabulary.

Note that the ending -ite is not pronounced the same way, e.g. phyllite x granite.

Underline the syllables pronounced with [ai], e.g. limestone

Task 3: Read the following part and explain the underlined words.

It's also possible to find many fossils in the sea and lake sediments. A large number of these fossils were originally discovered in the CR, especially from a fossil-rich area in the SW vicinity of Prague known as the Barrandian, named after the famous paleontologist Joachim Barrande (1799-1877). The most famous fossils which Barrande discovered were the trilobites. You can find beautiful collections of minerals and fossils, including Barrande's collection, in the National Museum on Wenceslas Square in the center of Prague.

fossils =

vicinity =

paleontologist = (Use two clauses connected with two relative pronouns (= vztažná zájmena) who + that, i.e. He is a specialist who studies something that studies something.

Task 4: Name some other specialists in geology and explain their specializations in a similar way. Write two examples:

Task 5: Use the words from the clue to fill the missing words in the text. There are four words that you will not need to use.

abundance construction destruction exhausted generation lack medieval ores rare raw (twice) varied verified

Because of the Czech Republic's (1) _____ geological composition, an (2) _____ of mineral deposits exist. At the present time, deposits of coal are used as (3) _____ materials for the (4) _____ of energy, and deposits of granites, basalts, sandstones, limestones, sands, clays and gravels as (5) _____ material for (6) _____ and the country's well-known ceramic and glass industries.

The poly metallic (copper, lead, tin, zinc) and precious metal (gold, silver) deposits were mostly (7) _____ during the country's long mining history and at present have no substantial economic value. Graphite deposits are of local importance. Extraordinarily rich deposits of silver greatly increased the importance and development of the Czech state in (8) _____ times. The exploitation of rich uranium (9) _____ in the recent past caused great damage to the environment.

Task 6: Find the words in the text below that match the explanations (1 word for each explanation).

1. precious stones =
2. diversity =
3. positions of prominent or well-known objects in a particular landscape =
4. just detectable amounts =
5. places where stone is dug out of the ground =

Interesting part of geology are gemstones. The best known types of Czech jewelry are moldavites, garnets (pyropes) and a variety of quartzes (agate, jasper), which were used to decorate some of the country's historical landmarks, such as Prague's St. Vitus cathedral and the castle at Karlstejn.

In Bohemia, it is unfortunately easy to find traces of how mankind's activities can be a powerful geological force. The large, deep coal quarries in Northern Bohemia are warning examples of performance of mankind as a dangerous geological power, creating an anthropogenic landscape.

Task 7: Discuss the following questions with your neighbor.

- a) How long has the country's land mass been developing?
- b) Which sedimentary / metamorphic / igneous rocks can be found in the CR?
- c) What caused metamorphosis of the rocks?

Task 8: Ask your classmates about:

- a) the areas in the CR which are rich in fossils.
- b) the possibility to see some famous fossils in the museum.
- c) how long it would take you to show us a nice fossil.

To be continued in JAG02 to complete the topic for the exam.

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