

## SULFIDES

The minerals that make up the sulfide class are composed of metal cations (+2 charge) combined with sulfur. The sulfides form an important group of minerals which includes the majority of the ore minerals for iron, copper, nickel, lead, cobalt, zinc, and silver.

Most of the minerals in this class allow light to transmit through them (are opaque) with distinctive colours and coloured streaks. The majority of these minerals in this class are also metallic, tend to have high densities, low hardness, exhibit electrical conductivity, and black or dark-coloured streaks. They form in igneous environments.

### Galena

Easily recognised by its good cleavage, high specific gravity, softness and lead-grey streak, this mineral is the primary ore mineral of lead. It is a very common sulfide that has been worked for its lead content as early as 3000 BC. The name is derived from the Latin, a name originally given to lead ore.

### Sphalerit

This mineral can be recognized by its striking resinous luster and perfect cleavage. It is the most important ore of zinc, which is used in galvanizing iron, making brass paint, wood preservatives and in dyes and medicine. The name comes from the Greek word meaning treacherous.

### Pyrite

Nicknamed Fool's Gold for people frequently mistaking it for gold, pyrite is the most common sulfide mineral and is found in a wide variety of geological formations. The name is from a Greek word meaning fire.

### Chalcopyrite

A major ore of copper, chalcopyrite is the most abundant of the copper-bearing mineral. This mineral is easily recognized by its brass-yellow colour and greenish-black streak. Its name is derived from the Greek word meaning copper and from pyrites meaning strike fire.

### Task 1

Write chemical formulae of these minerals :

galena

sphalerit

pyrite

chalcopyrite

**Task 2**

Find the words in the text that mean :

ruda

mosaz

barviva

vryp

rozpoznat

odvodit

kovové

hustota

tvrdost

elektrická vodivost

lesk

běžný

**Task 3**

Write names of seven metals in English and in Czech.

**Task 4**

What do these words mean ?

composed of

include

majority

allow

cleavage

wide variety

abundant

copper bearing

preservative

cation

igneous

treacherous

resinous

**Task 5**

Do you know any brass instruments ?