

Phytomining: cloze

Learning objectives

- 1 Use key words associated with phytomining.
- 2 Describe how plants can be used to extract metals from low grade ores.

Introduction

In today's high-tech society, there is an increasing need for valuable metals to use in computers and mobile phones. This worksheet will enable you to identify the key words to describe the process of phytomining and understand how plants can be used to extract metal.

Use the words from the word bank to complete the following sentences:

Large scale extraction of minerals (metal compounds) from the earth to make metals using traditional mining techniques is only cost effective when there are high concentrations of the mineral in the ground. We call such a mineral, a

_____.

When there are only small amounts of mineral in the ground, called a _____, then a process called _____, involving growing plants, is economic to use.

Plants called _____ are grown in soil containing the low grade ore minerals. They absorb the minerals via their _____ and what they don't use is stored and _____ in their leaves. When the plants are big enough, they are _____ in air and the impure metal compound is found in the _____.

Chemical processes such as _____ and _____ are used to then purify the metal from the ash.

Word bank

- | | |
|--|---|
| <input type="checkbox"/> ash | <input type="checkbox"/> burnt |
| <input type="checkbox"/> concentrated | <input type="checkbox"/> displacement |
| <input type="checkbox"/> electrolysis | <input type="checkbox"/> high grade ore |
| <input type="checkbox"/> hyperaccumulators | <input type="checkbox"/> low grade ore |
| <input type="checkbox"/> phytomining | <input type="checkbox"/> roots |