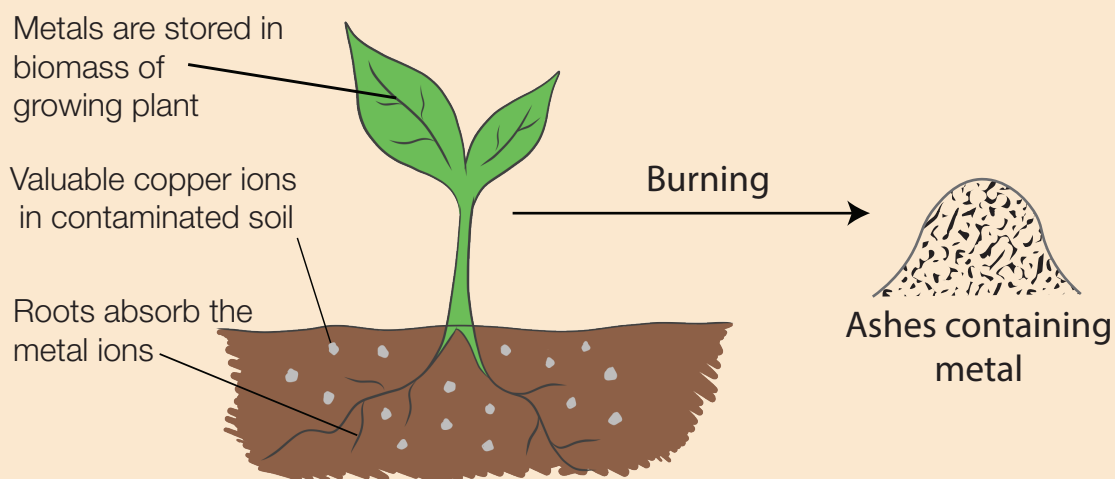


Some plants are able to grow in soils rich in metals (often in soils which have been contaminated through mining and other activities). The plants can accumulate metals within their biomass.



Copper ions can be removed from soil when they are **taken up through the roots** and stored within the plant tissues. Once these plants are fully grown they can be **harvested and the biomass is burnt**. The **copper metal** can then be obtained from the **ash** created.

QUESTIONS

1. The word phytomining can be split into 2 parts. Mining is the removal of materials from beneath the Earth. What does the word 'phyto' refer to?
2. Why might the soil have been contaminated with metals?
3. How do metals leave the soil during phytomining and where do they collect?
4. Which of the following options **does not** describe why copper is such a valuable metal?
 - It is available in relatively small amounts
 - Its properties make it very valuable
 - Its colour is different from all other (silver) metals
5. The metal ions taken up during phytomining need to be collected from the plants. How is this done?
6. Harder question : Explain why phyomining is thought to be an environmentally friendly process.