

CHAPTER 2	Thought Lab 2.2: Carbon, Sulfur and Iron	BLM 2.2.8
HANDOUT		
Purpose: To explain how coal mining can damage the environment and disrupt biogeochemical cycles.		

Analysis

1. Abandoned coal mines are sometimes surrounded by areas in which all the trees and other plants have died. Hypothesize as to what might have caused this situation.

2.
 - a) Much of Alberta's coal is now mined in large pit mines that have significant impact on the surrounding environment. What problems do you think these mines create?

 - b) In what ways do you think your views about controlling these mines would be different, depending on whether you live nearby one of these mines?

3. Explain how mining might affect:
 - a) the sulfur cycle

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b) the carbon cycle

4. Iron cycles between two ionic forms, Fe^{2+} and Fe^{3+} . In the presence of oxygen or by the action of bacteria, Fe^{2+} is changed to Fe^{3+} . Soils, sediments, and water contain both forms of iron, and organisms contain Fe^{3+} compounds. Pyrite contains Fe^{2+} . How might coal mining affect the iron cycle?