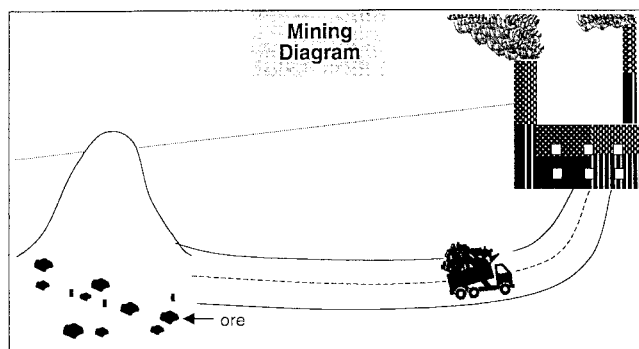


MEAP 2000 Grade 8

Rubric Question 60



This is a diagram showing three of the stages involved in mining. First, valuable ores are removed from the mine. Next, trucks transport the ore to a factory. Finally, the ore is processed in the factory so it can be used by humans for a variety of needs.

60 Explain two ways that air pollution is caused by changes in matter. For each way, explain what substance is being changed and what it is being changed into.

SAMPLE RESPONSES

Gasoline is burned and turned into exhaust.
Coal ore is burned and gives off smoke.
Trees are burned and become ash.

SCORING GUIDE

2 Points—Two valid changes in state of matter which produce air pollution.

1 Point—One valid change in state of matter which produces air pollution.

OR

A response which gives two examples of changes in matter, but doesn't address
The end products.

OR

A response which gives two end products, but doesn't name the substances
being changed.

0 Points—Incorrect information

60 One change in matter that may cause pollution is the burning of garbage. Burning it releases fumes that are harmful to the earth's atmosphere. By burning solid substances, you'll be changing it physically and chemically into smoke and fumes that may be harmful. Creating pollution, air pollution.

Another way of how changes in matter pollutes the air is an example of a factory. It burns coal and lots of other things. By doing so, it releases even more gases that are harmful to earth's atmosphere.

Guide 2

Score Point: 2

This response gives two correct substances with products (burning garbage releases fumes, burning coal releases gases).

60 Gas being burned rips holes in ozone layer. Coal does the same as gas only coal looks different.

Guide 4

Score Point: 1

This response contains two substances (gas and coal). No product is named.

60 The air pollution is caused by the dirt.

Guide 8

Score Point: 0

This response contains one incorrect substance (dirt).