

How Coal is Mined - Primary

Return to [Primary Lesson Plans](#)

Title: How Coal is Mined-- Student Worksheet

Level: Primary - Middle (3 - 6)

Time: 30 minutes

KERA Goals: 1.2, 1.4, 2.6, 2.7, 2.8, and 6.1

Objective:

Student will demonstrate knowledge and decision making about best method for mining coal.

Strip or Surface Mining - Uses huge bulldozers and power shovels to remove coal from a shallow seam near the Earth's surface.

Deep or Underground Mining - Tunnel or shaft is built into the earth to the coal seam (sometimes many hundreds of feet below the surface. Workers and equipment remove the coal through a tunnel or shaft.

Read each set of statements below. If there was nothing else to consider, would you think that surface, deep mining or both is the best way to obtain coal? Write your choices of the blanks at the left, using S (for surface) and D (for deep).

Surface Mining	Deep Mining
1. Each miner can produce 26 tons of coal a day.	1. Each miner can produce 9 tons of coal a day.
2. 90% of the coal in a surface mine can be removed (80% west of the Mississippi).	2. 50-80% of the coal in a deep mine can be recovered.
3. In 1976, surface-mined coal cost \$14.00 a ton, at the mine site.	3. In 1976, deep-mined coal cost \$27.00 a ton, at the mine site.
4. Forests and fields, along with their topsoil, are turned over before the coal is removed—at a rate of 1000 acres a week. New Federal laws require land reclamation, but the cost is added to the price of coal.	4. Much less damage to land and environment.

It would be easy to decide how to mine coal if there were only one set of facts to consider. As you have seen, however, there are many. What would you say is the advantage of surface mining?

What would you say is the main advantage of deep mining?

Can you think of a compromise?

How Coal is Mined - Primary

Provided by Pittsburgh Energy Technology Center

Return to [Primary Lesson Plans](#)