

## WARM UP

- 1 Which sector of production does mining belong to? Are there any mining activities in your country? If so, what for?

## MOUNTAINTOP MINING

Mountaintop mining is mainly carried out in the Appalachian region of the eastern United States, in states such as Kentucky, Virginia and West Virginia. It is a technique which was started in the 1970s and employs fewer workers than traditional methods, while allowing the maximum quantities of coal to be extracted.

After deforestation, the top of the mountain is removed using explosives so that the coal underneath is exposed. (1)  Once this initial layer of coal has been extracted, creating more waste to be disposed of in the surrounding area, the lower seams of coal are mined. After extracting all the coal, the area is supposed to be regenerated and planted with new vegetation and trees.

(2)  Furthermore, not all species of trees and plants will grow well in these new conditions. The biodiversity of the environment and the habitat for all kinds of birds and animals is permanently damaged by this destructive mining process and it has been estimated that more than 1.4 million acres (570,000 hectares) of mountaintops and forests could be destroyed by the year 2020. As well as destroying the habitat

for wildlife, the waste which is dumped into nearby valleys is toxic and contains heavy metals such as cadmium and selenium. (3)  In fact, tests on water samples taken from a river in West Virginia, showed that levels of selenium were above standard levels in 26 out of 31 samples. (4)  It has also been linked to a decline in the fish population. The local water supply also becomes polluted, bringing serious health risks for the local population, who also have to face the other dangers created by this mining technique, such as the toxic dust clouds caused by blasting with explosives and the increased threat of flooding.

(5)  In addition, it is initiating policies to protect water supplies and clean those which have already been polluted within the coal mining areas. Many local communities and groups in the Appalachian mountains are fighting to get mountaintop mining stopped completely.



### READING COMPREHENSION

- 2 **FCE** Read the article and choose the best sentence to fill each gap. There is one extra sentence you do not need.

- The US Environmental Protection Agency is currently assessing this mining technique.
- Selenium is known to be toxic to fish.
- However, this does not always occur.
- The waste rock and dirt created by the explosion are disposed of in the valleys below the mountain.
- The waste materials can also block streams completely.
- These toxic substances pollute streams and rivers.

### SPEAKING

- 3 Discuss these questions in small groups.

- What do you think of this method of mining?
- Do the benefits outweigh the environmental concerns?
- Do you think the USA should reduce its mining activities and use of fossil fuels?
- Is it feasible for the USA to replace fossil fuels with renewable energy?
- What about your country?