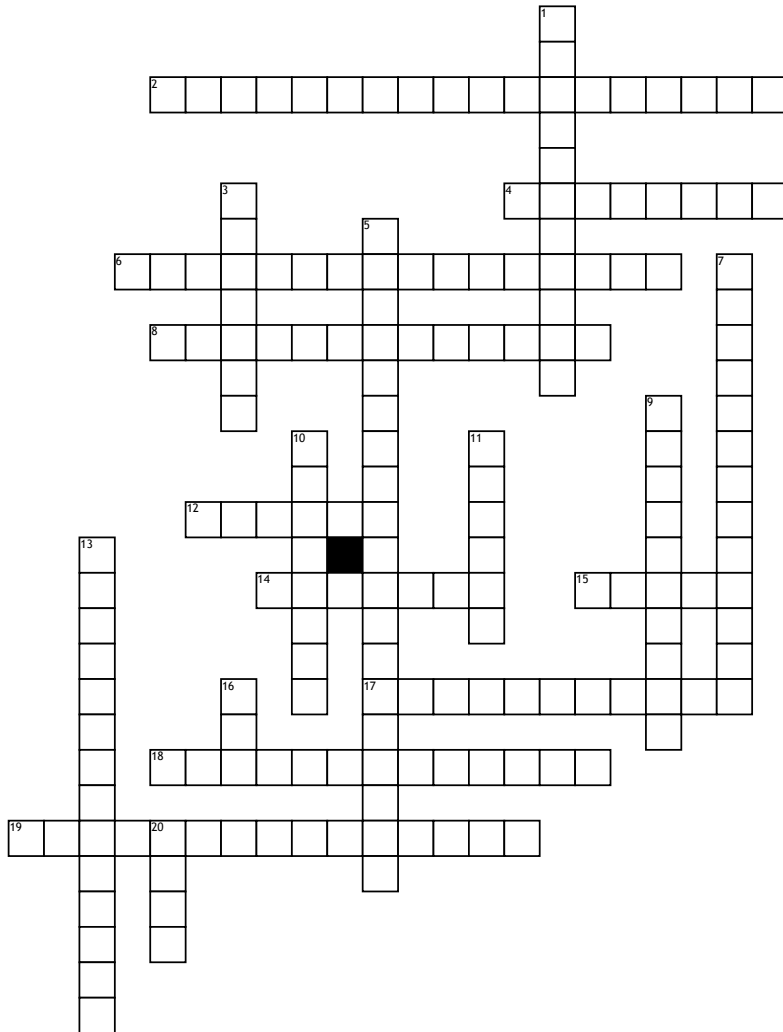


Name: _____

Chapter 11 Vocabulary



Across

2. Type of surface mining that clears large expanses of forests and uses explosives to remove the top of a mountain and expose seams of coal underneath the removed soil and rocks.
4. Process in which a mineral ore is heated in order to separate a desired metal from the other elements in the ore.
6. Extraction of a metal ore or fuel resource such as coal from a deep underground deposit through tunnels and shafts.
8. Removing vegetation, soil, and rock to extract a mineral deposit in Earth's surface.
12. Piles of overburden cleared away from a mineral deposit.
14. Chemical element or inorganic compound that exists as a solid with a regularly repeating internal structure.
15. Solid outer zone of Earth.

17. Combination of Earth's crust and the rigid, outermost part of the mantle above the asthenosphere.

18. Mining technique in which machines dig large holes in Earth's surface and remove metal ores containing copper, gold or other metals, or sand, gravel and stone.

19. Concentration of minerals that is large enough to cover the cost of extracting and processing it into raw materials and useful products.

Down

1. Any form of mining involving the extraction of mineral deposits that lie in large horizontal beds close to Earth's surface.
3. Portion of a mineral resource that is economically and technically feasible for mining.
5. Replacement of minerals with other materials for use in industry and technology.

7. Amount of time it takes to use a certain proportion (usually 80%) of the reserves of a mineral at a given rate of use.

9. In surface mining, the waste material (vegetation, soil, and rock) that is cleared away in order to access a mineral deposit.

10. Rock wastes that remain after the desired mineral has been extracted.

11. Zone of Earth's interior between its core and its crust.

13. Use of science and engineering to manipulate and create materials out of atoms and molecules at the ultra-small scale of less than 100 nanometers.

16. Rock that contains a large enough concentration of a mineral to make it profitable for mining and processing.

20. Solid combination of one or more minerals found in Earth's crust.

Word Bank

- | | | | |
|---------------------|----------|----------------------|----------------|
| strip mining | smelting | crust | lithosphere |
| mountaintop removal | tailings | subsurface mining | spoils |
| surface mining | mineral | overburden | rock |
| open-pit mining | ore | mineral resource | nanotechnology |
| depletion time | reserve | materials revolution | mantle |