

Environmental Bingo Part I

ENVIRONMENTAL BINGO INSTRUCTIONS

PURPOSE: To acquaint the students with environmental and mineral industry terminology.

INSTRUCTION:

1. Have the definitions cut up in a container before beginning. Instruct the students not to clear their cards when someone calls bingo until it has been verified. This saves some upsets if a student has marked the wrong definition on their card and the game resumes. Have some bingo markers available. (Gummie Bears or M & M's are great or you can have them mark spaces with a pencil).
2. Review the terminology (definitions) with the students then have them put the definition sheet away.
3. Give each student a bingo card. Students should refer to the list of terms at the bottom of the bingo card to fill in each square using one word or term per square. Do not put anything in the free space. Note that each word can only be used once and there are more terms than squares. This allows for more diversity in each of the bingo cards.
4. Students should be instructed that the definitions of the terms will be read and if they have the term that matches the definition on their card they should mark that square. Definitions are pulled out of the container and read one at a time until someone calls a bingo. (Five squares in a row either horizontally, vertically or diagonally).

EVALUATION:

1. Which terms were environmental and which came from the Minerals Industry? In reality, do all the terms fit in the Minerals Industry? If so, how do the terms fit? Which terms are specific to modern mining permitting and reclamation efforts?

OPTIONS:

Modify the bingo game by playing 4 corners or blackout.

ENVIRONMENTAL BINGO TERM DEFINITIONS

Abandon: To give up maintaining a property.

Absorbent: A substance that will absorb, drink in or, soak up a liquid.

Ambient: The environment surrounding a body but undisturbed or unaffected by the body.

BLM (Bureau of Land Management): A Federal agency responsible for management of certain federal lands following Multiple Use Guidelines.

Backfill: Materials excavated from a site and reused for filling the original excavation.

Cementation: To fill cavities or plug a drill hole with cement or other material to stop loss of water or entrance of unwanted liquids, gas, or fragmented rock into a borehole.

Conservation: The act or practice of preventing waste or loss. The official care, protection or management of natural resources.

Dump: Pile of non-ore (waste) material stacked at the entrance of a tunnel or at the collar of a shaft or open pit.

EA: (Environmental Assessment); lead government agency (BLM, USFS, etc.) predetermines that no significant amount of environmental impact will result from operation, so minimal study (EA) is required. Results can be contested and suspend or delay operations.

EIS: (Environmental Impact Statement); lead government agency determines that there is a possibility of significant environmental impact and a more thorough study is required. Results or decisions are not contestable.

EPA (Environmental Protection Agency): A federal or state agency that monitors actions taken dealing with the environment.

Endangered Species: A living thing (plant, animal, insect, etc.) that's continued existence is questionable without extra precautions for habitat management.

Environment: All the conditions, circumstances and influences surrounding and affecting the development of an organism, or group of organisms, the natural surroundings, earth, air, water and vegetation.

Erosion: All processes by which earthy matter or rock is loosened and moved from place to place. It includes processes of weathering, solution, corrosion, and transportation.

Forest Service: The management of specific federal lands following Multiple Use Guidelines is performed by this Federal Agency.

Ground Water: That water found underneath the surface of the earth, which permeates the earth's crust occupying spaces, fissures, and fractures.

Hard Hat: A term used for safety helmets. It has a hard crown and is worn by miners and others to resist blows to the head.

Impermeable: Not permitting fluids to pass through it; cannot be penetrated.

Leaching: The action of percolating liquid in order to remove the soluble parts.

Natural Resources: Materials supplied by nature, such as water, air, minerals, and trees.

Non renewable: Any natural resource that require ages of natural processes to produce and cannot therefore, be replaced, finite supply.

Overburden: The soil or rock that covers a mineral source.

Percolation: The slow seepage of water or chemical solution through soils or porous deposits.

Permit: Authorization from a regulatory authority to conduct permitted activity.

Pollution: Waste material discarded or discharged into earth, air or water that is harmful to the environment.

Preservation: The act of taking positive measures to save, maintain or preserve something.

Reclamation: Process of returning the land to a beneficial use.

Renewable: Infinite in supply, capable of being refilled, replaced or replenished.

Recycle: To return, to treat or to process in order to use again.

Subsoil: The soil layer which lies beneath the true soil and which contains almost no organic matter.

Tailings : The waste material left over after mining and milling processes have been completed.

Topsoil: The surface portion of the soil including the A-horizon, usually only a few inches in depth.

***Note:** Do not read the part of the definition in parenthesis.

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|--------------------|-----------------|
| BLM | natural process |
| EA | non renewable |
| EIS | organic |
| EPA | permit |
| bedrock | pollution |
| commodities | precipitation |
| conservation | preservation |
| consumption | research |
| endangered species | reclamation |
| environmental | recycle |
| explore | regulations |
| Forest Service | renewable |
| formation | resources |
| geology | rock |
| mine | shaping |
| impermeable | soil |

Note: Terms can be cut and pasted into the squares based on your needs.