

# Uranium Mining Methods Worksheet

Name: \_\_\_\_\_

Date: \_\_\_\_\_

Imagine that a company wants to mine uranium in your area. The company is trying to determine which of the three mining methods it wants to use based on considerations like:

- Other radioactive materials like radium and radon gas that can contaminate the environment and cause health concerns.
- Safe disposal or storage of the mining waste.
- The protection of the health of the workers, nearby community members and the environment.

For each mining method:

- Hypothesize and list the benefits and impacts each mining method may have on the local society, the economy and the environment.
- Check whether you might be for or against allowing the mining method in your area.



## Underground Mining

Source: National Institute of Environmental Health Sciences

Underground mining involves digging and removing rock through a tunnel or opening the side of a hill or mountain. Miners must work underground in tunnels.

Benefits:

Impacts:

For

Against



## Open Pit Mining

Source: U.S. Geological Survey

Open-pit mining involves stripping away or excavating the topsoil and rock that lie above the uranium ore.

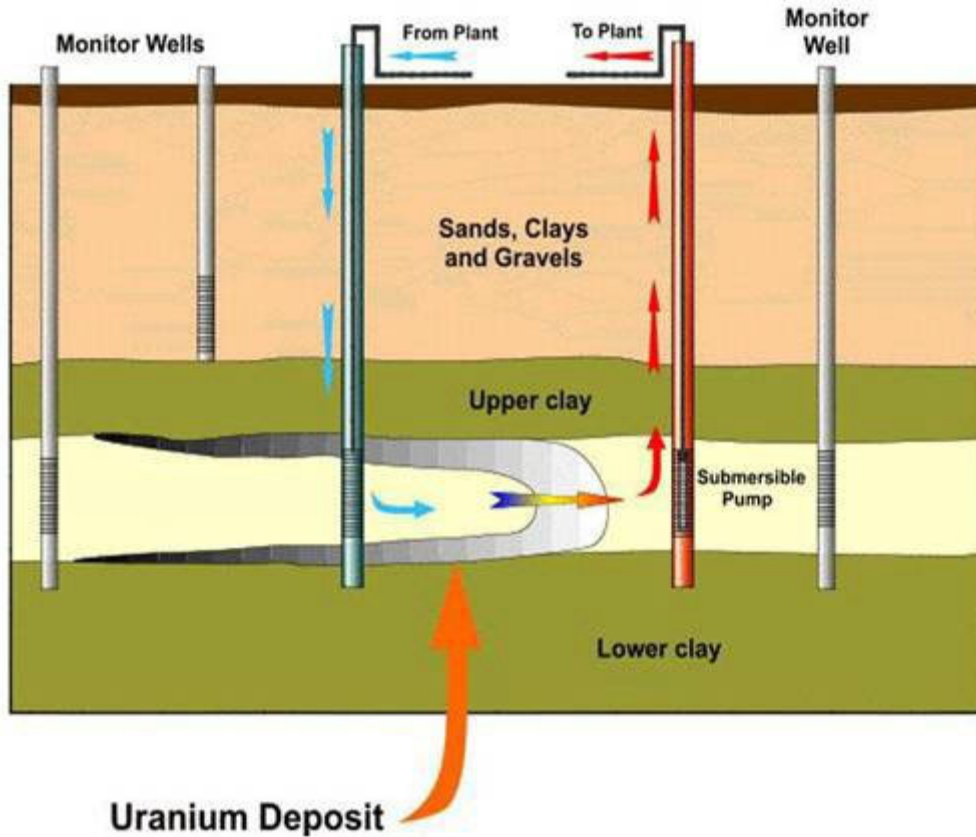
Benefits:

Impacts:

For

Against

**In-situ leaching** involves treating ore deep underground with chemicals to dissolve the uranium and then pumping the liquid to the surface. This method is feasible in deposits that are saturated and have high permeability. This method is the most common method used in the U.S. through wells.



Source: World Nuclear Association

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Benefits:

Impacts:

For

Against