Mining In Society Merit Badge

Sample Merit Badge Workshop Outline Mine Tour Option

This outline assumes access to a mine for the purposes of Requirement 5. If you as a counselor do not have access to a mine please use the "Site Visit or Virtual Mine Tour" outline.

Counselors should adapt this outline to best fit the needs of the Scouts they work with.

Planning to have a mine visit for Requirement 5

Session 1 - Classroom Activity Session

Approximate time = 2.5-3 hours

- A. Distribute the Merit Badge Workbook: http://meritbadge.org/wiki/images/b/b2/Mining in Society.pdf
- B. Introduce the merit badge, outline the workshop, and review the requirements: 15 minutes

Requirements:

www.mineralseducationcoalition.org/sites/default/files/uploads/misrequirements 0.pdf

C. Requirement 1 – Minerals In Our Lives

35 minutes

May be lecture, but splitting into small groups using different rooms is encouraged

- a. Select from the room you are in 10 items categorize the items as grown, mined, or both; list the minerals in each item. (Note: the list that is created should have items that have been grown, and items that have been manufactured from mined products.)
- b. For each item grown determine mining's role in its cultivation, harvesting, manufacturing, transporting, promoting and sales.
- c. Determine the countries where those minerals can be found.
 - Have scouts discuss what they learned with you, their counselor.
- D. Requirement 2 Mining's Local Presence

35 minutes

Classroom style with visual aids or small groups with handout maps

<u>References will be needed for mine locations within your state/region</u> http://www.msha.gov/drs/DRSextendedSearch.asp#.U4X0kXJdW4I

- 1. Display a map of your state or region showing major cities, highways, rivers, and railroads.
- 2. Show how the location of mines in your state can be determined and marked on the map.
- 3. Help Scouts identify and mark five mining enterprises on their own.
- 4. Find out what resource is processed at each location, and identify the mine as a surface or underground operation.
- 5. Discuss how the resources mined at these locations are used.

Note: The same map may be used for multiple Scouts so long as each Scout can mark five mines of their own. It is recommended to provide Scouts with individual maps of their state. These maps need not be extremely detailed, but must show "major cities, highways, rivers, and railroads."

E. Requirement 3 – Mine Safety

15 minutes

Classroom lecture setting

While the mine operator that will be your host for the mine visit will carefully review health and safety procedures, and provide the required personal protection equipment, you should review with the Scouts prior to the mine visit the content of pages 70-74 in the pamphlet.

F. Requirement 4 – Abandoned Mines, Stay Out—Stay Alive!

35 minutes

Classroom lecture setting/small groups

Reference Materials(Including 25 min video):

http://www.msha.gov/SOSA/SOSAhome.asp#.U4XxE3JdW4I (Link may need to Copy/Paste into URL search bar)

- Discuss with the Scouts the dangers someone might encounter at an abandoned mine.
 Include information about the "Stay out—Stay Alive" program.
- G. Requirement 5 Mine Visit

See "Field Trip to Mine" below. If you are looking for a mine in your area to provide a tour please see MMA's page for a list of resources. You may also find mines through the MSHA site.

H. Requirement 6 – Mine Reclamation See "Field Trip to Mine" below

I. Requirement 7 – The Future of Mining

30 minutes

- Select one: A, B, C, or D - prepare a lecture/presentation and/or activity using information from the Merit Badge Pamphlet (pg. 59-69).

<u>Session 2</u> – Field Trip to Mine 1.5 hours plus mine tour duration

A. Requirement 3 – Before beginning the tour:

30 minutes

Ask the company providing the tour in advance if they can prepare a presentation which will teach the following:

- Discuss the potential hazards a miner may encounter at an active mine and the protective measures used by miners, including:
- a. How the miner's personal protective equipment is worn and used, including a hard hat, safety glasses, earplugs, dust mask or respirator, self-rescue device, and highvisibility vest.
- b. How miners protect their hands and feet from impact, pinch, vibration, slipping, and tripping/falling hazards.
- c. How monitoring equipment warns miners of imminent danger, and how robots are used in mine rescues.
- B. Requirement 5 Tour the Mine

C. Requirement 6 – Reclamation

30 minutes

Ask the company in advance if they can do the following during the tour:

- a. Demonstrate what is being done to help control environmental impacts at their mine.
- b. Explain reclamation as it is used in mining and how mine reclamation pertains to Scouting's no-trace principles (the counselor may need to assist when speaking about no-trace principles).

- (To be done either during or separately from tour): Discuss with your counselor what values society has about returning the land to the benefit of wildlife and people after mining has ended. Discuss the transformation of the BSA Summit Bechtel Family National Scout Reserve from a mine site to its current role. See this page about reclamation of the SBR:

http://www.dep.wv.gov/news/Pages/DEPbeginsworkonGardenGroundMountainproject_aspx

D. Requirement 8 – Careers in Mining

30 minutes

Ask the company in advance if they can have at least one of their employees prepare for the following during the tour:

- a. Discuss the work, equipment, and technology used in this individual's position, and learn about a current project. Ask to see reports, drawings, and/or maps made for the project. Find out about the educational and professional requirements for this individual's position. Ask how the individual's mining career began.
 - Discuss with your Scouts what they have learned.

Final Check off

5-15 minutes / Scout

- Meet with each Scout to make sure that they have qualified for the merit badge, check off blue cards, etc.
- Requirements may be checked off as Scouts complete them to make this final step easier.