



Eye injuries:


Burns:


Fume inhalation:


Dizziness:


Skin irritation:


Exposure to hazardous chemicals:


Exposure to filler metals:


Exposure to welding gases:




3. Explain the terms *welding*, *electrode*, *slag*, and *oxidation*

Welding:


Electrode:


Slag:


Oxidation:


Describe the welding process, how heat is generated, what kind of filler metal is added (if any), and what protects the molten metal from the atmosphere.


4. Name the different mechanical and thermal cutting methods.


Choose one method and describe how to use the process.


Discuss one advantage and one limitation of this process.

Advantage


Limitation


5. Do the following

- a. Select two welding processes, and make a list of the different components of the equipment required for each process. Discuss one advantage and one limitation for each process.

1. Process

components


advantage


limitation




Training:


Experience:


Discuss this with your counselor, and explain why this profession might interest you.


b. Discuss the role of the American Welding Society in the welding profession.


When working on merit badges, Scouts and Scouters should be aware of some vital information in the current edition of the *Guide to Advancement* (BSA publication 33088). Important excerpts from that publication can be downloaded from <http://usscouts.org/advance/docs/GTA-Excerpts-meritbadges.pdf>. You can download a complete copy of the *Guide to Advancement* from <http://www.scouting.org/filestore/pdf/33088.pdf>.